# BRAND SUSTAINABILITY AND ITS IMPACT ON PURCHASE INTENTION TOWARDS APPAREL BRAND

By

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Exam Roll No.: 823/20

T.U. Registration: 7-2-1013-0032-2015

A Graduate Research Report submitted in partial fulfillment of the requirements for the degree of

# MASTER'S OF BUSINESS ADMINISTRATION (MBA)

At the

School of Management Tribhuvan University

The Faculty of Management

Tribhuvan University

Kirtipur, Kathmandu

April, 2023

# RECOMMENDATION

## CERTIFICATION

We, the undersigned certify that we have read and hereby recommend for the acceptance by the School of Management, Tribhuvan University, a Graduate Research Project (GRP) report submitted by Numa Angbo entitled "Brand Sustainability and Its impact on Purchase Intentions Towards Apparel Brand ", in a partial fulfillment of the requirements for the award of Master of Business Administration (General) of Tribhuvan University.

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# **DECLARATION OF AUTHENTICITY**

I, Numa Angbo, declare that this GRP is my own original work and that it had fully and specifically acknowledged wherever adapted from other sources. I also understand that if at any time it is shown that I have significantly misinterpreted material presented to SOMTU, any credits awarded to me on the basis of that material may be revoked.

Signature: \_\_\_\_\_

Name: Numa Angbo

Date:

# ACKNOWLEDGEMENT

This graduate research project titled "Brand Sustainability and Its impact on Purchase Intentions towards Apparel Brand" has been prepared in fulfillment of the requirements for the degree of Masters of Business Administration (MBA), School of Management, Tribhuvan University.

First and foremost, I would like to express my sincere gratitude to my supervisor, Dr. Gangaram Biswakarma, Deputy Director of School of Management, Tribhuvan University (SOMTU) for his invaluable guidance, insightful comments, and support throughout my research journey. His SmartPLS class was indispensable in evaluating the data of the thesis.

I am also deeply thankful to my family and friends for their unwavering support, encouragement and motivation during my research pursuits. I would also like to express heartfelt acknowledgement to the participants of my study for their willingness to take part in my research project. Without their contributions to the study, this thesis would not have been possible.

Finally I am grateful to the faculty members, staff, and colleagues who have contributed to my academic and personal growth in my MBA journey during my time at School of Management Tribhuvan University.

Numa Angbo

April, 2023

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# ABBREVIATIONS

AVE	Average Variance Extracted		
BE	Brand Equity		
BCa	Bias Corrected and Accelerated		
BI	Brand Impression		
BS	Brand Strength		
BS	Brand Sustainability		
CR	Composite Reliability		
CSK	Customer Sustainability Knowledge		
HTMT	Heterotrait-Monotrait		
LV	Latent Variable		
PI	Purchase Intention		
PLS	Partial Least Squares		
PLS-SEM	Partial Least Square-Structured Equation Modeling		
SD	Standard Deviation		
SEM	Structured Equation Modeling		
SRMR	Standardized Root Mean Squared Residual		
TPB	Theory of Planned Behavior		
TRA	Theory of Reasoned Action		
VAF	Variance Accounted For		
VIF	Variance Inflation Factor		

#### **EXECUTIVE SUMMARY**

The Nepalese apparel industry is rapidly growing industry. However, the industry also has a significant impact on the environment due to its contribution on pollution and depletion of natural resources. As consumers become more environmentally conscious, there is an increasing demand for sustainability. The study's objective is to examine the impact brand sustainability has on the purchase intention of consumers.

The study is based on primary source of data collected through a self-administered questionnaire technique. The population of the study is composed of all the Nepalese consumers of apparel, and Cochran (1977) sample size determination formula is used to determine the sample size. The final valid responses for the study are 301 from 305 after data screening. The SmartPLS 4.0 is used which uses the method of Structural Equation Modelling (SEM), specifically Partial Least Square Based Structural Equation Modelling (PLS- SEM), which is applied to test hypotheses of the study.

The key findings of the study is that the brand sustainability of an apparel brand has a significant impact on the purchase intention of Nepalese consumers. Additionally, the study also found that the customer sustainability knowledge of Nepalese consumers do not have a mediating effect on the relationship between apparel brand sustainability and purchase intention. Furthermore, the study has identified the components of brand sustainability, namely Brand Equity, Brand Impression, and Brand Strength, and their impact on consumer purchase intention. The identification of the components of brand sustainability can guide apparel brands to prioritize specific aspects of sustainability in their operations and marketing efforts. Apparel brands can use this information to design and implement marketing strategies that focus on developing brand sustainability.

#### **CHAPTER I**

## **INTRODUCTION**

#### 1.1 Background of the Study

Sustainability has become an essential component of a brand's image and reputation in recent times, instead of being merely a passing trend. Although policymakers have been concerned about sustainability issues for several decades, it has become a mainstream topic in the 21st century (Chen, 2010). The demand for eco-friendly options has significantly increased among consumers in recent years (Mostafa, 2007). According to Schultz and Block (2015), consumers who perceive a brand as sustainable are more likely to exhibit stronger brand loyalty.

Brand sustainability means the perceptions held by stakeholders, particularly consumers that are influenced by a company's corporate responsibility efforts (Senge, 2008). It indicates the perception held by consumers that a company goes beyond legal obligations and self-interest to address environmental and social expectations McWilliams and Siegel, (2001); Walsh and Beatty, (2007). Sustainability to brands is crucial for their own competence and existence in the market. Sustainability to brands is crucial for their own competence and existence in the market.

The study is based on the conceptual framework developed based on the concept of association of the variables from the theories: Sustainability Theory, Triple Bottom line (TBL) theory, Theory of Planned Behavior (TPB) and Theory of Reasoned Action (TRA) and through literature review from several research study .The measurement scale for the three construct: Brand Equity, Brand Impression and Brand Strength is adapted from research study of Moslehpour et al. (2019) ,Gidaković et al. (2022) and Ray and Sharma (2020) respectively, which are taken as the components of brand sustainability.

The issue of sustainability has changed how consumers perceive brands. The key purpose of the research study is to identify the influence of Brand Sustainability on the purchase intention of consumers towards apparel brand. The mediating role of customer sustainability knowledge in the relationship between brand sustainability and purchase intention is also assessed in the study. The study aims to explore the relationship between brand sustainability and purchase intention among consumers of apparel brands. The study will be helpful in exploring the component of brand sustainability, to understand the important elements for achieving brand sustainability and how brand sustainability can lead in purchase intention of consumers.

#### **1.2 Problem Statement**

Sustainability has become an essential component of a brand's image and reputation in recent times, instead of being merely a passing trend. The concept of sustainability gained significant attention during the modern environmental movement, which criticized the unsustainable nature of present-day societies, where the way resources are utilized, economic growth, and consumption patterns pose a threat to the health of ecosystems and the welfare of future generations (Meadowcroft, 2023). Brand sustainability refers to the perceptions held by stakeholders, particularly consumers that are influenced by a company's corporate responsibility efforts (Senge, 2008). It indicates the perception held by consumers that a company goes beyond legal obligations and self-interest to address environmental and social expectations McWilliams and Siegel, (2001); Walsh and Beatty, (2007).

The sustainable use of natural resources, with consideration for inter-generational equity, is a crucial concern for Nepal, highlighting the significance of sustainable consumption and production (*Sustainable Consumption and Production in Nepal* > *Resource Library* / *SWITCH-Asia*, 2023, April 5). As consumers become more conscious of their purchasing habits' environmental effects, there is an increasing demand for sustainable products. Consumer behavior varies depending on the continent, culture, and country. While environmental concerns are associated with environmentally friendly decisions for European and American consumers, Asian consumers place more importance on health-related benefits (Eom et al., 2016). Further research was needed to be done in the Nepalese context to understand the impact of brand sustainability on purchase intention of the consumers.

#### **1.3 Research Questions**

The present study addresses following research questions:

- 1) Is there impact of brand sustainability components on purchase intention?
- 2) Does customer sustainability knowledge have mediating effect between brand sustainability and purchase intention of the consumers?

3) Does customer sustainability knowledge impact consumer purchase intention towards apparel brand?

# **1.4 Research Objectives**

The general objective of the study is to assess the influence of brand sustainability on consumer purchase intention towards apparel brand in the context of Nepal.

The specific objectives of the research study are as follows:

- To analyze the impact of brand sustainability components on purchase intention of customers towards apparel brand.
- To evaluate the mediating role of customer sustainability knowledge on the relationship between brand sustainability and purchase intention.

# **1.5 Statement of Hypothesis**

Gidaković et al. (2022) revealed brand sustainability has a direct impact on purchase intentions.

# H1: Brand Sustainability has a significant impact on Purchase Intention.

Veldwijk (2020) revealed that companies that prioritize sustainability and communicate their efforts effectively can build stronger relationships with customers, who are increasingly demanding environmentally responsible products and services.

H2: Brand Sustainability has a significant impact on Customer Sustainability Knowledge.

Ceylan (2019) indicated that regarding the relationship between knowledge, attitude, and behavior, it was observed that a slight positive impact on attitudes and behaviors related to ecological fashion practices is seen with an increase in knowledge.

H3: Customer Sustainability Knowledge has a significant impact on Purchase Intention.

Moradi and Zarei (2011) revealed correlation exists between brand equity and the intention to make a purchase, with a positive association between the two. Shah et al. (2016) found the impact of brand equity is significantly and positively correlated with consumers' brand purchase intention.

H4: Brand Equity has a significant impact on Purchase Intention.

Gidaković et al. (2022) revealed brand impression as a mediator has effect purchase intention.

#### H5: Brand Impression has a significant impact on Purchase Intention.

Brand strength can have influence on purchase intention of customers as according to the article of Bhasin (2022) strong brand has the potential to expand customer base, leading to a rise in both revenue and profits.

#### *H6: Brand Strength has a significant impact on Purchase Intention.*

Knowledge has positive impact on consumer purchasing intention (Mokan et al, 2018). This suggests that individuals who possess knowledge related to environmental issues are likely to have a greater inclination towards purchasing green products.

*H7: Customer sustainability knowledge has a significant mediating effect between Brand sustainability and purchase intention.* 

#### 1.6 Significance of the Study

The impact of brand sustainability towards the consumers and its subsequent impact on the purchase intention can lead to answers of whether the brand sustainability actually has any effect on individual consumers purchase intention. The study can be helpful to companies and businesses in knowing what can be the important factors for their sustainability efforts towards purchase intention. Despite large number of international papers on the association between brand sustainability and purchase intention, there is lack of research study done in the Nepalese context. The study can be used by the Nepalese organizations and corporations to better their sustainability policy by focusing more on the consumers. Additionally, the study is one of the initial research on both the mediatory role of customer sustainability knowledge between brand sustainability and purchase intention, and establishing the components of brand sustainability. Since, the study has made an attempt to establish the components of brand sustainability, it can be used as a road map by research scholars for further study on this field of topic.

The study will be helpful for contributing towards the effort of organizations or corporations, to develop their own brand sustainability. The key findings from the research can be used by corporations to develop strategies and support their objective to achieve brand sustainability. The study may be helpful to professionals to understand the consumers' perception about sustainability of a brand and the role of customer sustainability knowledge in contributing towards the sustainability of a brand. The findings of this study can provide valuable insights to apparel brands seeking to improve their sustainability practices and effectively communicate their efforts to consumers. Finally, the conclusion and recommendation of the research study can be used as a roadmap by research scholars involved on the topic for large scale data that could be more generalizable.

#### **1.8 Limitation of the Study**

Limitations to the study are as follows:

- The respondents are selected on the basis convenience method. Hence, findings from the study is specific.
- The study's sample size is not large but it is sufficient to derive statistically significant conclusions.

## **1.9 Structure and Outline of the Report**

The research study has three main sections: Preliminary part, body of the report and supplementary part and five chapters. Title page, certification, declaration of authenticity, acknowledgement, table of contents, list of tables and figures, abbreviations used and executive summary are included under the Preliminary Section of the study.

The second section, body of the report has five chapters. Chapter one contains the introduction and background of the study, problem statement, research questions, research objectives, statement of hypothesis, significance of the study, limitation to the research report and structure and outline of the report. Chapter two contains literature review of brand sustainability, brand equity, brand impression, brand strength, customer sustainability knowledge, purchase intention and the theoretical framework of the study. The literature review is focused on conceptualizing components of Brand Sustainability. Chapter three contains research methodology used in the study, research design, population and sample, sampling technique, technique used for data collection and the tools used for assessment. Chapter four contains presentation and interpretation of the data analysis and key findings. Finally, chapter five contains the conclusion and the recommendation from the study. The supplementary section includes references and appendix.

#### **CHAPTER II**

# **RELEATED LITERATURE AND THEORITICAL FRAMEWORK**

The chapter presents the various theory and literature to study Brand Sustainability, Customer Sustainability Knowledge and Purchase Intention. The chapter is divided two sections: Theoretical Review and Empirical Review.

## **2.1. Theoretical Review**

This section illustrates the theories that are associated with the study. The associated theories are: Theory of sustainability, Triple Bottom Line (TBL) Theory, Theory of Planned Behavior (TPB) and Theory of Reasoned Action (TRA).

### 2.1.1 Theory of Sustainability

This concept of sustainability gained significant attention during the modern environmental movement, which criticized the unsustainable nature of present-day societies, where the way resources are utilized, economic growth, and consumption patterns pose a threat to the health of ecosystems and the welfare of future generations (Meadowcroft, 2023).

## **2.1.2 Triple Bottom Line Theory**

Elkington (1997) created the term Triple bottom line (TBL). According to Elkington (1997), TBL presents the environmental agenda's growth by merging the economic and social aspects. Rogers and Hudson (2011) have described the term as the pragmatic framework of sustainability. The TBL strategy is aimed at corporations and organizations, and stresses the importance of a balanced focus on their economic, social, and environmental contributions. TBL assesses the performance of business and organization based on three elements forming a framework: economic, social and environmental (Goel, 2010).

**Environmental:** The ecological aspect of the Triple Bottom Line (TBL) involves adopting practices that ensure the conservation of environmental resources for future generations. This includes using energy resources efficiently, lowering greenhouse gas emissions, reducing the ecological footprint, and more, as noted by Goel (2010). This aspect necessitates that businesses mitigate their adverse effects on the environment and aid in its sustainability by tackling concerns like greenhouse gas emissions, pollution, and resource depletion.

**Economic:** According to Elkington (1997), the TBL framework's economic component considers how an organization's business practices affect the economy. Its focus is on the economy's ability as a subsystem of sustainability to endure and develop in a way that supports future generations, as noted by Spangenberg (2005).

**Social:** In TBL, the social aspect is engaging in equitable and advantageous corporate methods for the workforce, human resources, and the community at large (Elkington, 1997). Social performance concerns the interaction between the company and community, covering topics such as community engagement, employee relations, and equitable compensation (Goel, 2010). Fulton and Lee (2013) state that social sustainability in the apparel industry frequently pertains to concerns like sweatshops, child labor, and unfavorable working conditions during the production process.

The study of Park (2016) implies that the TBL model can effectively explain a consumer's view of an apparel brand's sustainability, in theory. The theory of TBL is used in the study to conceptualize sustainability of an apparel brand.

### 2.1.3 Theory of Reasoned Action (TRA)

TRA was introduced by Azjen and Fishbein (1975), which states that people's conduct is determined by their behavioral intentions, influenced by two factors: their personal attitudes towards the behavior and the social pressure perceived from those they seek to satisfy.

#### 2.1.4 Theory of Planned Behavior (TPA)

Theory of Planned Behavior (TPB) builds on Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1975; Ajzen & Fishbein, 1980). Ajzen (1991) introduced a perceived behavioral control variable to TPB, which was not present in TRA. The initial construct in TPB, as stated by Ajzen (1991), is behavioral intention, which motivates conduct. Behavior is more probable if there is a stronger intention to participate in it. TPB posits that subjective norms, personal attitudes, and perceived behavioral control shape individual intentions.

#### **2.2 Conceptual Review**

#### 2.2.1 Branding Sustainability in Apparel Brands

Grubor and Milovanov (2017) explored the evolution of branding theory and its application in contemporary business environments, where sustainability has emerged as a major global concern. The article discusses the benefits of adopting a sustainable branding strategy, as well as the essential components for its successful implementation and highlighted the need for companies to embrace sustainability to remain competitive.

#### 2.2.2 Brand Sustainability

According to Senge (2008), brand sustainability refers to the perceptions held by stakeholders, particularly consumers that are influenced by a company's corporate responsibility efforts. It indicates the perception held by consumers that a company goes beyond legal obligations and self-interest to address environmental and social expectations (McWilliams & Siegel, 2001; Walsh & Beatty, 2007).

Schultz and Block (2015) introduced and put forward a new concept called "brand sustainability." The study stated that brand sustainability has the potential to serve as a significant metric for comprehending a brand's worth and value.

Moslehpour et al. (2019) examined the sustainable relationship between the brand equity and purchase intention mediated through price premium and brand preference and studied the sustainability of brand survival. The study assessed the variables brand awareness, perceived quality, prestige value, and price premium, brand preference and purchase intention. A quantitative methodology was employed in this study, utilizing structural equation modeling (SEM) to assess the proposed hypotheses and their relationships. The study collected data from two samples of participants, with 202 respondents from Taiwan and 217 from Indonesia. The result showed that for companies seeking to generate significant value for consumers, building and enhancing brand equity is a crucial strategy that leads to increased purchase intent and ultimately improves the company's market position.

### **2.3 Empirical Review**

This section presents the literature review and research work carried out on the field of Brand Sustainability. The literature review consists of empirical studies published on journals, articles, books. The majority of the studies examined in this section pertain to international work due to the scarcity of studies available in the Nepalese context. The literature review is done in chronological format.

## 2.3.1 Components of Brand Sustainability

According to Park and Srinivasan (1994), brand equity refers to the additional value that a consumer perceives a product to have due to its association with the brand. The following studies discuss the association between brand equity and sustainability.

Gidwani (2013) examined the link between brand value and sustainability. The study examined more than 1000 companies in 54 countries. Data for the study were obtained from two sources: CSRHub, which evaluates the sustainability practices of over 8,300 companies across 104 countries, and Brand Finance's Brand Strength Index (BSI), a proprietary approach used to assess the brand value of over 5,000 prominent global companies. The outcome illustrated a strong association between a company's sustainable practices and its brand strength. The study highlighted how the treatment of employees and implementation of environmental policies were the primary factors driving this correlation. The correlation remains consistent across a diverse range of companies, encompassing various industries, regions, and enterprise values.

The result from Tandberg and Ipsos MORI survey, Tandberg (2007) suggested a significant association among corporate environmental responsibility, brand equity, and competitive advantage. In their global survey, it was discovered that over 1 billion consumers, which is more than 50%, preferred purchasing goods from environmentally responsible companies. Moreover, nearly 700 million employees from the same survey highlighted the significance of being employed by an environmentally ethical organization, which accounts for almost 80% of the respondents.

Moslehpour et al. (2019) study has used three key dimensions of brand equity: Brand Awareness, Perceived Quality and Perceived Prestige Value to measure brand equity. In this study these three key dimensions are likewise used to measure brand equity.

Ray and Sharma (2020) studied the results of brand strength. 225 respondents' data was analyzed using Structured Equation Modeling (SEM). Five factors (innovation, agility, positioning, delivering the brand promise and awareness building) established through literature review and expert was used to measure the brand strength of an organization.

The analysis showed that brand sustainability and brand strength have a positive correlation. In other words, companies with stronger brands are more likely to have sustainable brands. The study demonstrated that the outcome of brand strength is brand sustainability. It can be conceptualized that Brand strength is crucial in defining the brand sustainability of organizations.

Gidaković et al. (2022) studied the impact of brand sustainability on purchase intention mediated by brand impression and brand attitude. Structural Equation Model was used for analysis of the data collected from 441 respondents. The result indicated that brand impression as a mediator has effect on brand sustainability and purchase intention. From the result of the study, it can be implied that brand impression is a crucial factor for brand sustainability to impact the consumer purchase intention.

According to Gidaković et al. (2022), brand warmth, competence, and morality essential elements of brand impressions of consumers. Brand Impression in the study is measured based on these three constructs.

### 2.3.2 Brand Sustainability and Purchase Intention

Sharma and Joshi (2019) attempted to identify the most important factor of brand and know young (18 to 24 age group) consumers' perception of brands that are sustainable. Multi-criteria decision-making (MCDM), arithmetic hierarchical process (AHP) and technique for order preference by similarity to ideal solution (TOPSIS) method is used to analyze the data collected from 100 young consumers. The result indicated that young consumers show a preference for brands that benefit society.

Jung et al. (2020) conducted research on the factors influencing purchase intention of sustainable apparel products and exploring consumer "Attitude–Behavioral Intention" Gap. The collected data from 240 respondents were analyzed. Based on the results of the regression analysis, Chinese consumers' attitudes towards Sustainable Apparel Products (SAP) had a considerable and positive influence on their purchase intentions. The results of the study discovered that the attitude has positive impact on behavioral intention towards Sustainable Apparel Products (SAP).

Gidaković et al. (2022) studied the impact of brand sustainability on purchase intention mediated by brand impression and brand attitude. Structural Equation Modeling (SEM)

was used for data analysis for the data collected from 441 respondents. The result from the study indicated that brand sustainability has a direct impact on purchase intentions.

## 2.3.3 Customer Sustainability Knowledge and Purchase Intention

Ceylan (2019) studied the knowledge, attitudes and behavior of consumers towards sustainability and ecological fashion. Descriptive statistics and correlation analysis were used for data analysis of 476 participants. The result indicated that participants' knowledge of ecological fashion level was above average. Regarding the relationship between knowledge, attitude, and behavior, it was observed that a slight positive impact on attitudes and behaviors related to ecological fashion practices is seen with an increase in knowledge. Similarly, a positive increase in attitude has a comparable effect on behaviors.

Zhang et al. (2021) examined consumer's attitude towards sustainability. To analyze the 128 valid response of the research study, descriptive statistics and regression analysis (oprobit) were used. The study found while there is a heightened understanding and emotional recognition of sustainability, this doesn't necessarily lead to changes in consumer buying habits.

Veldwijk (2020) explores how consumers' growing concerns about sustainability are affecting their purchasing decisions and loyalty to brands. The article argues that companies that prioritize sustainability and communicate their efforts effectively can build stronger relationships with customers, who are increasingly demanding environmentally responsible products and services.

## 2.3.4 Mediating Role of Customer Sustainability Knowledge

Mokan et al. (2018) aimed to explore the purchase intention of Malaysian consumers towards green products and to examine the correlation between knowledge, eco-label, and social influences in shaping consumer behavior. A structured survey questionnaire was employed to collect quantitative data from 200 shoppers at three selected shopping malls in Batu Pahat, Johor. The 93 valid responses obtained were analyzed using Statistical Package for the Social Sciences (SPSS) version 24.0.The results indicated that knowledge has the most significant positive impact on consumer purchasing intention, followed by social influences and eco-label factors, respectively. This suggests that individuals who possess knowledge related to environmental issues are

likely to have a greater inclination towards purchasing green products. It can be derived from the study that customer who have knowledge about sustainability (environment issues) like to purchase green brand products.

# Table 1

*Literature Review Matrix* 

Authors	Variables	Methodology	Findings
Schultz and Block (2015)	Brand Sustainability	Survey	Introduced and put forward a new concept called "brand sustainability."
Moslehpour et al. (2019)	BrandAwarenessPerceivedQualityPrestigeValuePricePremiumBrandPreferencePurchaseIntention	Structural Equation Modeling (SEM) SPSS AMOS 23	The result showed that for companies seeking to generate significant value for consumers, building and enhancing brand equity is a crucial strategy that leads to increased purchase intent and ultimately improves the company's market position.
Gidaković et al. (2022)	Brand Sustainability Brand Impressions Brand Attitudes Purchase Intentions.	Structural Equation Modeling (SEM) n = 441	Consumers' purchase intentions are positively influenced by brand sustainability, with brand impressions and attitudes playing a mediating role in this relationship.

(Continued)

Literature	Review	Matrix
Dictation	110 110 11	1110001000

Authors	Variables	Methodology	Findings
Sharma and	Social	Multi-criteria	Young consumers show a
Joshi (2019)	Responsibility	decision-	preference for brands that
	High-Quality Green	making	benefit society.
	Products	(MCDM)	
	Environmental	AHP	
	Protection	TOPSIS	
	Brand Consistency	Method	
	Performance		
Ray and	Brand Strength	Structural	The study revealed a positive
Sharma	Brand	Equation	association between brand
(2020)	Sustainability	Modeling	sustainability and brand
	Brand Reputation	(SEM)	strength, wherein several
	Brand Awareness	SPSS 23.0	factors such as brand
	Brand Loyalty	AMOS 20.0	reputation, brand awareness,
			and brand loyalty contribute
			to brand strength.
Jung et al.	Consumption	Moderated	Based on the results of the
(2020)	Values	Multiple	regression analysis, Chinese
	Social Norms	Regression	consumers' attitudes towards
	Attitude	(MMR)	Sustainable Apparel Products
	Behavioral	Analysis	(SAP) had a considerable and
	Intentions		positive influence on their
	Individual		purchase intentions. The
	Determinants		results of the study discovered
	Sustainable		that the attitude has positive
	Decision-Making		impact on behavioral
	Process		intention towards Sustainable
			Apparel Products (SAP).
			(Continued)

Literature Review Matr
------------------------

Authors	Variables	5	Methodology	Findings
Tandberg (2007)	Attitudes To	oward hange of	Survey Research	In their global survey, it was discovered that over 1 billion consumers, which is more than 50%, preferred purchasing goods from environmentally responsible companies. Moreover, nearly 700 million employees from the same survey highlighted the significance of being
				employed by an environmentally ethical organization, which accounts for almost 80% of the respondents.
Gidwani (2013)	Brand Str Sustainability Practices	rength	Brand Strength Index(BSI) CSRHub's Rating	A strong positive correlation between a company's sustainable practices and its brand value. The research highlighted that treating employees well and implementing environmental policies were the two key drivers of this correlation.
				(Continued)

(Continued)

Authors	Variables	Methodology	Findings
Ceylan (2019)	Consumers' Knowledge Attitudes Behavior Towards Sustainability And Ecological Fashion	Descriptive Statistics Correlation Analysis	The result indicated that participants' knowledge of ecological fashion level was above average. Regarding the relationship between knowledge, attitude, and behavior, it was observed that a slight positive impact on attitudes and behaviors related to ecological fashion practices is seen with an increase in knowledge. Similarly, a positive increase in attitude has a comparable effect on behaviors.
Zhang et al. (2021)	Consumer Attitudes Towards Sustainability Purchasing Behavior Willingness to Pay	Descriptive Statistics Regression Analysis (Oprobit)	The study found while there is a heightened understanding and emotional recognition of sustainability, this doesn't necessarily lead to changes in consumer buying habits.

Literature	Review	Matrix
Luciunc	ILC VIC W	munin

Variables	Methodology	Findings
Knowledge Eco-Label Social Influence Consumer Purchase Intention	(SPSS) version 24.0	Knowledge has the most significant positive impact on consumer purchasing intention, followed by social influences and eco-label factors, respectively. This suggests that individuals who possess knowledge related to environmental issues are likely to have a greater inclination towards purchasing green products.
E	Knowledge Eco-Label Social Influence Consumer Purchase	Knowledge(SPSS)Eco-Labelversion 24.0SocialInfluenceConsumer Purchase

## 2.4 Research Gap

After systematically reviewing the literature, it was found that there is limited research done in the area of brand sustainability in Nepal. The study of Gidaković et al. (2022), Moslehpour et al. (2019) and Ray and Sharma (2020) studied the individual influence of brand equity, brand impression and brand strength as a factor of brand sustainability. There has been extensive study on the impact of brand sustainability on purchase intention. Gidaković et al. (2022) indicated brand sustainability influence purchase intention of consumers. Research has yet to fully explore the impact of brand sustainability components on consumer purchase intention. There is research gap in studying and establishing components of brand sustainability and the individual impact of the components of brand sustainability (brand equity, brand impression, brand strength) on the purchase intention of consumers of apparel brand.

From the literature review it is concluded that the sustainability knowledge and awareness about the aspects of sustainability concept of customers in influencing their

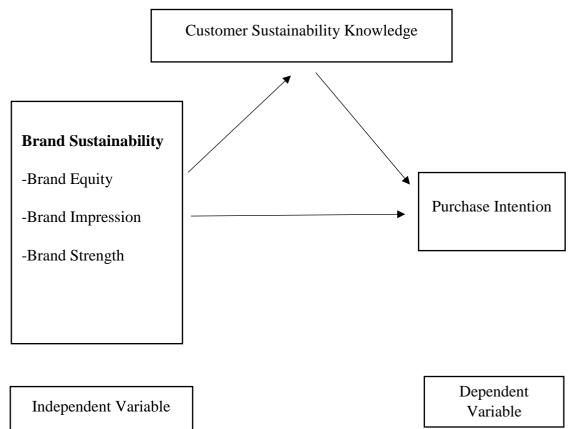
purchase intention towards sustainable brand is studied. However, the role of customer sustainability knowledge as a mediator between these two constructs has received less attention in the research. Ceylan (2019), Zhang et al. (2021) and Veldwijk (2020) established that the knowledge about sustainability does influence the purchase intention of consumers. There is a research gap on how customer sustainability knowledge influence the purchase intention of consumers towards a brand which has sustainability aspects incorporated into its brand.

#### **2.4 Conceptual Framework**

Figure 1 illustrates conceptual framework of the study. The independent variable of the study is Brand Sustainability. Brand Sustainability is measured by its three components conceptualized and established through the literature review: Brand Equity, Brand Impression and Brand strength. The three latent variables are measured using their respective indicators. The dependent variable of the study is purchase intention. Customer Sustainability Knowledge mediates the relationship between Brand Sustainability and Purchase Intention. The study aims to evaluate how brand sustainability affects the purchase intention of consumers towards apparel brands. The assessment of brand sustainability in the study is carried out through its three components adapted from Moslehpour et al. (2019), Gidaković, et al. (2022) and Ray and Sharma (2020). The proposed conceptual framework of the study is based on both theoretical and empirical reviews, suggesting that brand sustainability can have an impact on consumers' knowledge of sustainability, which in turn is expected to influence their purchase intention. The study hypothesizes that by promoting brand sustainability, companies can increase customers' awareness of sustainable practices and hence motivate them to make sustainable purchase decisions.

# Figure 1

Conceptual Framework



Adapted from Moslehpour et al. (2019), Gidaković, et al. (2022) and Ray and Sharma (2020)

# **2.5 Operational Definition of Variables**

# 2.5.1 Brand Sustainability

According to Senge (2008), brand sustainability refers to the perceptions held by stakeholders, particularly consumers that are influenced by a company's corporate responsibility efforts. It indicates the perception held by consumers that a company goes beyond legal obligations and self-interest to address environmental and social expectations (McWilliams & Siegel 2001; Walsh & Beatty 2007). Brand sustainability is measured using its three components: Brand Equity, Brand Impression and Brand Strength in the present study.

# **2.5.2 Brand Equity**

According to Park and Srinivasan (1994), brand equity refers to the additional value that a consumer perceives a product to have due to its association with the brand. This

value is a result of the consumer's perception of the brand. The measurement scale of brand equity for the present study was adapted from Moslehpour et al. (2019).

## 2.5.3 Brand Impression

The consumers' overall perception of a brand's warmth, competence, and morality forms a generalized mental representation known as brand impression. This impression reflects how consumers view the brand, and it is made up of three dimensions: competence, morality, and warmth (Gidaković et al. 2022). The measurement scale for brand impression for present study was adapted from Gidaković, et al. (2022).

## 2.5.4 Brand Strength

According to Rocha (2012), brand strength evaluates a brand's capacity to establish customer loyalty. The measurement scale of brand strength for the present study was adapted from Ray and Sharma (2020).

## 2.5.5 Customer Sustainability Knowledge

Consumer knowledge refers to the information that is stored in an individual's memory and which may influence their purchasing decisions. In other words, the information that consumers retain in their memory can affect the choices they make when making a purchase (Sharaf et al., 2015). The measurement scale for Customer Sustainability Knowledge was adapted from Zhang et al. (2021).

## **2.5.6 Purchase Intention**

Purchase intention refers to the mental process that a consumer goes through, which includes considering, seeking advice, and making decisions regarding a particular product (Ha & Stoel, 2009). The measurement scale for purchase intention in the present study is adapted from Erdem et al. (2006).

#### CHAPTER III

## **RESEARCH METHODS**

This chapter illustrates the methods and procedures used to conduct the research. It outlines and explains the research design, population and sample, sampling technique, data collection methods, data analysis techniques used and the expected hypothesis from the study.

#### **3.1 Research Design**

The research study is established on descriptive quantitative research design. Researcher has used both quantitative and descriptive research design in the study. The research design is suitable for the study as the study aims to investigate cause-and-effect relationships, test hypotheses and describe the relationship between brand sustainability and purchase intention and the components of brand sustainability (brand equity, brand impression and brand strength).

#### **3.2 Population and Sample**

The population of the proposed research study is composed of all the Nepalese consumers of apparel (clothing). Since, the study is not specific to any apparel brand and has the general objective to study the brand sustainability's impact on purchase intention, the population therefore is all of the Nepalese apparel consumers. For sample size determination, Cochran (1977) sample size determination formula is used as the population of the study is unknown.

$$n_0 = Z^2 p q / e^2$$

Where,

*no*= required sample size,

p= estimated proportion of the population which has the attribute in consideration

*q*=1-p

e = margin of error

z = standard normal deviation at the required confidence level

The recommended value of p and q for the unknown population is 50%. By considering the confidence level of 95 %, with z value = 1.96 and the sampling error e = 5%.

$$n_0 = Z^2 pq/e^2 = 1.96^2 * 0.5 * 0.5 / 0.05^2 = 384$$

Therefore, the study's optimal sample size was estimated to be 384 Nepalese apparel consumers.

## 3.3 Sampling Technique

The sampling method used in the study is Convenience Sampling Method. It is a nonprobability sampling method that relies on the researcher's judgement. The participants are selected based on their availability and willingness to participate. While the convenience technique may not be applicable to broader populations, it can still serve as a tool for testing hypotheses and validating theories (Stratton, 2021). Hence, convenience sampling method is suitable for the study. The Nepalese apparel consumers are qualified to be the respondents.

#### 3.4 Sources of Data and Data Collection

Primary source of data is used in the study and the data was collected through the selfadministered questionnaire technique. The questionnaire was developed on the Google forms. It was then distributed through online mediums to the respondents for data collection. The sample size of the study was determined to be 384 but only 305 responses were collected due to low response rate. Therefore, the study is based on 305 sample size.

# **3.5 Instrumentation**

The study is based on survey method. The questionnaire was made up of two parts. The questionnaire's first part consists of demographic aspects of respondents. The demographic aspects includes: gender of the respondents (Male, Female, Others), Age group the respondents fall into (Below 20, 20- 25, 25-30, 30-35, Above 35), their academic qualification (Intermediate or Below, Bachelors, Masters or Above), and monthly income range (Less than Rs.30,000, Rs.30,000-Rs.60,000, Above Rs.60,000). The respondents' interest in sustainable apparel (yes, no) was also assessed. Furthermore, this segment of the questionnaire consisted of analysis of the respondents' frequency of onlinepurchases (Rarely only once or twice a year, Often purchasing once a month, Very Often purchasing once a week). Their reason of importance of sustainable

apparel brand is (It promotes in protecting the environment, It supports good working condition for workers, It promotes saving natural resources).

The second part of the questionnaire consisted of variables of the study. They are: components of Brand Sustainability (Brand Equity, Brand Impression and Brand Strength), Purchase Intention and Customer Sustainability Knowledge. They were measured with their respective items. All together there was total of 44 items.

To suit the research context, slight modifications were made as necessary to all items, which were obtained from previously validated scales. Modifications were made to several scale items in the questionnaire to better capture the construct being measured. These changes included the addition of an extra words to the sentence in order to better capture the construct being measured. For instance the item under the Brand Impression 'The brand is capable' was modified to read as follows: 'The brand is capable in competing with its competitors'. In another instance, the item under Brand Strength 'Focus on research' was modified to read as follows: 'The brand focuses on research'. These changes were made after reviewing the literature and consulting with the supervisor of the research. The items frequency responses were presented in five-point Likert scale .The scales varies in the level of agreement to the statement which is indicated as 1—strongly disagree, 2—disagree, 3—neutral, 4— agree and 5—strongly agree. Brand Sustainability is measured through its components (Brand Equity, Brand Impression and Brand Strength).

As for measurement scale, Brand Sustainability was measured through its components: Brand Equity, Brand Impression and Brand Strength. Measurement scale of Brand Equity was adopted from the study of Moslehpour et al. (2019). In this study the authors used item from existing validated scales and measured Brand Equity through three indicators: Brand awareness was measured using four items adapted from Yoo et al. (2000), Perceived Quality, four items taken from (Pappu et al., 2005; Pappu et al., 2006) and Perceived Prestige value was measured using a three-item scale gathered from early works of (Han & Terpstra, 1988; Steenkamp et al., 2003). Measurement scale for Brand Impression was adapted from Gidaković, et al. (2022), where the researcher measured it through its three dimensions which were Brand Competence adapted from Halkias et al. (2016), Brand Morality adapted from Choi and Winterich (2013) and Aquino and Reed II (2002) and Brand Warmth adapted from Halkias et al. (2016). Furthermore, measurement scale of Brand Strength was adapted from Ray and Sharma (2020) where the researcher studied it through five indicators: Innovation, Agility, Positioning, Delivering the Brand Promise and Awareness Building. The measurement scale for Customer Sustainability Knowledge was adapted from Zhang et al. (2021). To assess purchase intention, three-item scale recommended by Erdem et al. (2006) was used.

# Table 2

Sources of Instruments

Instruments	Source
Brand Sustainability :	
Brand Equity	Moslehpour et al. (2019)
Brand Impression	Gidaković et al. (2022)
Brand Strength	Ray and Sharma (2020)
Customer Sustainability Knowledge	Zhang et al. (2021).
Purchase Intention	Erdem et al. (2006)

#### **3.6 Data Management and Analysis Tools**

The data management was done in steps. First of all, the total responses collected from the 'Google Forms' were exported to the Microsoft Excel. The items of the questionnaire were then coded for easier and simpler analysis of the data. Also, the demographic response part were changed into numeric form (data) using Microsoft Excel. For example, in the monthly income range category 1 was assigned to Below Rs. 30000, 2 was assigned to Rs. 30000 to Rs. 60000 and 3 was assigned to above Rs. 600000. The data set was screened using the simple Microsoft Excel which checked for variances within the data set. If the standard deviation of the rows with all the items were less than 0.25, it was implied that there was existence of variance. Responses having variances were filtered out from the dataset. After filtering such responses, the valid responses for further data analysis was reduced to 301 from 305.

Secondly, to further analyze the data set the responses were coded and entered into the IBM SPSS. To test the outliers present in the data set, Mahalanobis Distance was used. No outliers were identified in the data set by Mahalanobis Distance. After, the data screening and outlier identification process the final valid responses for the study is 301 from 305. The data set was assessed for normality checks for determining the suitable

method of further data analysis to achieve the objective of the study. Continuing, the demographic data is assessed using IBM SPSS Statistics 26.

Finally, for the analysis of the relationship between the variables in the study SmartPLS 4.0 was used. The SmartPLS 4.0 uses the method of Structural Equation Modelling (SEM).There are two kinds of SEM analysis which are Covariance Based Structural Equation Modelling (CB-SEM) and Partial Least Square Based Structural Equation Modelling (PLS- SEM). PLS-SEM is mainly applied to test hypothesis. As for CB-SEM, it is mainly used in developing new theories (Hair et al., 2017). According to Hair et al. (2019), PLS-SEM is applied while evaluating mediation when there is mediation effect in the structural model since it is better than regression analysis.

#### **3.6.1 Measurement Model Analysis**

Measurement model is a statistical model which characterizes associations between latent (unobservable) variables and their observable indicators. To assess the measurement model reliability and validity was measured. Reliability means producing consistent results with the same sample and conditions whereas validity means accurately measuring the intended construct with a test or scale. According to Downing (2003), Content Validity and Construct Validity are the prominent tests of validity among the various kinds of validity. Content validity assesses how completely a test covers the relevant aspects of the intended construct whereas construct validity assesses whether a test accurately measures the concept it was designed to evaluate. Convergent Validity and Discriminant Validity are two types of construct validity. Convergent validity measures the degree to which a test correlates with other tests that measure the same or similar constructs and Discriminant validity evaluates the degree to which a test is distinct from other tests that measure different constructs. Table 3 displays various standards for evaluating the measurement model, along with their corresponding benchmark values.

Measurement Model Criteria

Measurement	Criterion	Benchmark Value		
Internal Consistency and	Cronbach's Alpha	≥ 0.70 (Fornell & Larker , 1981)		
Reliability	Composite Reliability	≥ 0.70 (Fornell & Larker , 1981)		
Convergent Validity	Factor Loading	≥ 0.708 (Hair et al., 2019)		
	AVE	≥ 0.50 (Hair et al., 2019)		
Discriminant Validity	HTMT	$\leq$ 0.90 (Gold et al., 2001)		
	1111/11	$\geq 0.50$ (Gold et al., 2001)		

Cross-Loadings and Fornell-Larcker Criterion are the two methods of testing Discriminant Validity. Cross-Loadings require the factor loading of an indicator to be significantly higher than its cross-loadings (Henseler et al., 2015). Similarly, in Fornell-Larcker Criterion Discriminant Validity is tested by checking if a latent variable explains more variance in its own indicators than in other constructs in the model (Fornell & Larcker, 1981). According to Hair et al. (2022), although HTMT ratios can give indication of Discriminant Validity, for accuracy, the use of the bootstrapped Bias Corrected and Accelerated (BCa) algorithm with 10,000 subsamples is recommended when assessing it.

#### **3.6.2 Structural Model Analysis**

Structural model analysis was done, after measurement model was established. The analysis of structural model involved testing multi-collinearity, analyzing the relationship strength between the variables and evaluation of model fitness. Presence of multi-collinearity in the data was analyzed using VIF. Likewise, the relationship strength and overall effect size of relationships was assessed with the Coefficient of Determination ( $R^2$ ) and ( $F^2$ ) respectively and finally the overall model fitness was evaluated using the SRMR criterion. After completion of these analysis the hypothesis testing of the study was carried out through the standardized beta coefficients. In standardized beta coefficients, bootstrapped 10,000 sub-samples using the Bias-Corrected and Accelerated (BCa) algorithm were used for the Structured Equation

Model analysis. In Table 4, benchmark values for various assessment criteria for the measurement model are presented.

# Table 4

Criterion	Benchmark Value
VIF	≤ 5 (Ringle et al., 2015); ≤ 10 (Hair et al., 2009)
<b>R</b> <sup>2</sup>	0.75-Substantial; 0.5-Moderate; 0.25-Weak
	(Hair et al.,2011)
F <sup>2</sup>	>=0.02-small; >= 0.15-medium; >= 0.35- large (Cohen et al., 1998)
Model Fit (SRMR)	≤ 0.80 (Hair et al., 2022)

Structural Model Criteria

# **3.7 Expected Outcomes**

The expected outcomes of structural model assessment is presented by Table 5.

# Expected Outcomes from Hypothesis Testing

Hypothesis	Statement	Expected	Expected
		Result	Sign
H1	Brand Sustainability has a significant	Supported	(+)
	impact on Purchase Intention.		
H2	Brand Sustainability has a significant impact on Customer Sustainability	Supported	(+)
	Knowledge.		
H3	Customer Sustainability Knowledge has a	Supported	(+)
	significant impact on Purchase Intention.		
H4	Brand Equity has a significant impact on	Supported	(+)
	Purchase Intention.		
H5	Brand Impression has a significant impact	Supported	(+)
	on Purchase Intention.		
H6	Brand Strength has a significant impact on	Supported	(+)
	Purchase Intention.		
H7	Customer sustainability knowledge has a	Supported	(+)
	significant mediating effect between Brand		
	sustainability and purchase intention.		

#### CHAPTER IV

# **ANALYSIS AND RESULTS**

This chapter consists of data analysis, presentation and interpretation of the result. The data are first analyzed on the basis of descriptive analysis followed by the assessment of structural model. The hypothesis are tested and key findings are presented in this section.

## 4.1 Socio-Demographic profile of respondents

The respondent's social and demographic characteristics were analyzed on the basis of gender, age, academic qualification and monthly income range. Furthermore, their interest towards sustainable apparel, the frequency of sustainable apparel purchases and also the reason for importance of sustainable apparel fashion brand to them were also included on the analysis.

Table 6 illustrates the information collected on the social and demographic information of the respondents. These socio demographic details is used for further analysis and interpretation of the results. In the data out of the total 301 respondents, majority of the respondents constituted of female (59.5%) and the remaining 40.5% is accounted by male. There is no record of response in the other category under gender indicating 0% participation in that category of response. In the age category, the age group of 25 to 30 (33.2%) constituted majority of the respondents, followed by 20 to 25 (30.2%), 30 to 35 (17.9%), below 20 (9.6%) years of age. The least representation of the respondents was the age group of above 35 which was 9% of the whole respondents. Similarly for academic qualification majority of the respondents fall in the Bachelors category (45.8%), followed by Masters and above (39.5%) and the minimal being Intermediate or below (14.6%). In the category of monthly income range of the respondents, the majority constituted of income range of 30000 to 60000 (36.9%), followed by 30000 to 60000 (36.5%) with Above 60000 (26.6%) being the least in the representation. Respondents were asked about their interest in sustainable apparel (clothing). For this question out of the 301 respondents, 273 (90.7%) responded with yes and the remaining 28 (9.3%) with no. Likewise, the majority of response for frequency of sustainable apparel purchase constituted of Often (Once a month) (43.9%), followed by Rarely (Once or twice a year) (40.5%) and the least in the response Very Often (Once a week) (15.6%).

Respondent Demographics

Demographic Variables	Categories	Frequency	Percent
Gender			
	Male	122	40.5%
	Female	179	59.5%
	Other	0	0%
Age			
	Below 20	29	9.6%
	20-25	91	30.2%
	25-30	100	33.2%
	30-35	54	17.9%
	Above 35	27	9%
Academic Qualification			
	Intermediate or below	44	14.6%
	Bachelor	138	45.8%
	Masters and above	119	39.5%
Monthly Income Range			
	Less than 30000	111	36.9%
	30000 to 60000	110	36.5%
	Above 60000	80	26.6%
Sustainable Appeal			
	Yes	273	90.7%
	No	28	9.3%
Purchase Frequency			
	Rarely (Once or twice a year)	122	40.5%
	Often (Once a month)	132	43.9%
	Very Often (Once a week)	47	15.6%

Sustainable Apparel Brand Importance

Factors	Frequency	Percent
It supports good working condition for workers	84	27.9
It promotes in protecting the environment	158	52.5
It promotes saving natural resources	59	19.6

Table 7 demonstrates that the most important factor for sustainable apparel brand is "It promotes in protecting the environment" (52.5%), followed by "It supports good working condition for workers" (27.9%). The least of the factor of importance in sustainable apparel brand is "It promotes saving natural resources" (19.6%). Summarizing Table the main factor for sustainable apparel brand's importance is that it promotes in protecting the environment.

## 4.2 Descriptive Statistics

In a given study descriptive statistics explains, exhibits and highlights the important characteristics of a data set. It explains the data sample and its measurements in a summary. Mean, standard deviation, minimum and maximum values are the statistical tools used for the analysis. The standard deviation is used to find variation in the responses for indicators and variables of the study. This section presents the descriptive analysis of the data, summary of its result which is interpreted accordingly.

### 4.2.1 Descriptive Statistics of Brand Sustainability

In the study Brand Sustainability is measured by three components: Brand Equity, Brand Impression and Brand Strength. The descriptive statistics for the three components are presented in separate table with their respective interpretations. The statements are measured on the basis of the degree of agreement which ranges from 1 to 5.

Descriptive Statistics of Brand Equity

Measure	Items	Statements	N	Min	Max	Mean	S.D.
Brand	BE1	I am aware of the brand.	301	1	5	3.84	0.972
Awareness							
	BE2	When I think of apparel	301	1	5	3.95	0.997
		brands, it is one of the brands					
		that comes to my mind.					
	BE3	I am familiar with the brand.	301	1	5	3.93	1.021
	BE4	I know what the brand looks	301	1	5	3.89	0.942
		like.					
Perceived	BE5	The brand offers very good	301	1	5	3.89	0.882
Quality		quality products.					
	BE6	The brand offers products of	301	1	5	3.89	0.842
		consistent quality.					
	BE7	The brand offers reliable	301	1	5	3.84	0.912
		products.					
	BE8	The brand offers products	301	1	5	3.81	0.985
		with quality features.					
Perceived	BE9	The brand has prestigious	301	1	5	3.68	1.146
Prestige		product.					
Value							
	BE10	The brand has high status in	301	1	5	4.08	0.938
		the market.					
	BE11	The brand is top quality	301	1	5	3.91	0.951
		among my friends.					
		Brand Equity	301	1	5	3.88	0.963

Table 8 displays the descriptive statistics for Brand Equity, which is a key indicator for measuring Brand Sustainability. As Brand Equity reflects the value of a brand in the market, the mean score of 3.88 suggests that the respondents hold a favorable perception of their preferred apparel brand. The highest mean score in this section corresponds to the statement "When I think of apparel brands, it is one of the brands that comes to my mind." Given that all mean scores for this statement are greater than 3, it indicates that the apparel brand holds a positive value for the respondents.

Descriptive Statistics of Brand Impression

Measure	Items	Statements	N	Min	Max	Mean	S.D.
Brand	BI1	The brand is capable in	301	1	5	3.78	0.913
Competence		competing with its					
		competitors.					
	BI2	The brand is competent in its	301	1	5	3.94	0.961
		industry.					
	BI3	The brand is efficient in	301	1	5	3.86	0.870
		making its product.					
	BI4	The brand's product are	301	1	5	3.97	0.879
		skillfully made.					
Brand	BI5	The brand is fair in dealing	301	1	5	3.85	0.980
Morality		with customers					
	BI6	The brand cares about the	301	1	5	3.76	1.174
		environment.					
	BI7	The brand is compassionate	301	1	5	3.72	1.166
		(concerned) towards the					
		environment welfare.					
Brand	BI8	The brand is friendly towards	301	1	5	3.76	1.191
Warmth		the customers.					
	BI9	The brand is kind towards the	301	1	5	3.80	1.128
		environment.					
	BI10	The brand is likable as it has	301	1	5	3.88	1.050
		not been involved in any major					
		controversy.					
	BI11	The brand has nice (pleasant)	301	1	5	3.87	1.121
		public image.					
		Brand Impression	301	1	5	3.84	1.039

Table 9 displays the descriptive statistics for brand impression, which refers to the impression created by a brand on consumers. The mean score of 3.84 indicates that the respondents hold a highly positive impression of the apparel brand. The item with the highest mean score is "Product is skillfully made," which denotes the most agreed-upon factor contributing to a positive impression in the respondents' perception. The item

with the highest standard deviation is BI8, which refers to the statement "The brand is friendly towards the customers," indicating the highest level of variation in response among the respondents. On the other hand, the item with the least standard deviation is BI3, which has a value of 0.870, indicating the least variation in response among the respondents.

Descriptive Stat	istics of Brand	Strength
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Measure	Items	Statements	Ν	Min	Max	Mean	S.D.
Innovation	BST1	The brand focuses on	301	1	5	3.55	1.043
		research					
	BST2	The brand has	301	1	5	3.74	1.164
		ecofriendly					
		proprietary					
		ingredients.					
	BST3	The brand's	301	1	5	3.73	1.014
		management team					
		supports it in terms					
		of investment					
Agility	BST4	The brand is able to	301	1	5	3.76	0.939
		respond to market					
		challenges and					
		opportunities					
	BST5	The brand has the	301	1	5	3.89	1.014
		desire and ability to					
		constantly evolve					
		and renew itself					
	BST6	The brand is clear	301	1	5	3.87	0.964
		about its customer					
		insights					

Positioning	BST7	The brand has 301 1 5 3.82 0.975	
		differentiated	
		positioning	
		distinctive from its	
		competitors	
	BST8	The brand fits with 301 1 5 4.05 0.876	
		customer needs	
	BST9	The brand sells 301 1 5 3.77 1.077	
		across all the	
		relevant	
		demographics and	
		geographies	
Delivering	BST10	The brand provides         301         1         5         3.77         0.958	
the brand		good experience in	
promise		all of their	
		interaction to	
		customers.	
	BST11	The brand has a 301 1 5 3.75 1.08	
		defined heritage.	
	BST12	The brand is capable 301 1 5 3.87 1.023	
		of delivering high	
		expectations of the	
		customers.	
Awareness	BST13	The brands' has 301 1 5 3.99 1.013	
building		distinctive qualities	
		and characteristics	
	BST14	The brand has 301 1 5 3.87 1.002	
		positive discussion	
		by customers and	
		opinion formers in	
		media.	

BST15	The brand has strong	301	1	5	3.74	1.032
	distribution channels					
	and omnipresence in					
	all geographies.					
	Brand Strength	301	1	5	3.81	1.012

Table 10 demonstrates the descriptive analysis for brand strength. The average mean score is 3.81. This result signifies that the apparel brand has a positive brand strength and has a competitive image in the market. All the statements have a mean over 3 which denotes positive image for brand strength. The highest mean score 4.05 is for fitting with customer needs and the lowest mean is for focus on research by the brand. On an average the response is highly positive for the brand strength. The results present that the brand strength is strong for the apparel brand.

# 4.2.2 Descriptive Statistics of Customer Sustainability Knowledge

Items	Statements	Ν	Min	Max	Mean	S.D.
CSK1	I am aware of social equity issues such	301	1	5	3.93	1.011
	as working conditions of factory					
	worker in the fashion (apparel)					
	industry.					
CSK2	I am aware of child labor in the global	301	1	5	4.16	0.92
	supply chain in the fashion (apparel)					
	industry.					
CSK3	I am informed of environmental issues	301	1	5	4.19	0.917
	such as waste and pollution caused by					
	excessive production of garments in					
	the fashion (apparel) industry.					
CSK4	I am knowledgeable about the apparel	301	1	5	3.87	1.121
	(clothing) brands that sell eco-friendly					
	fashion products.					
	Customer Sustainability Knowledge	301	1	5	4.04	0.992

Descriptive Statistics of Customer Sustainability Knowledge

Table 11 demonstrates the descriptive results for Customer Sustainability Knowledge. The average score is 4.04. The overall responses are leaning towards the agreement with all of the individual scores over 3. The average score signifies that the overall respondents are knowledgeable about the topic of sustainability in the apparel industry. The highest standard deviation is 1.121 in statement CSK4 denoting the highest variation in the given responses. According to the results presented in Table 11, the item with the highest mean score is CSK3, which has a score of 4.19. This indicates that the respondents are highly knowledgeable and aware of environmental issues that are caused by the excessive production of garments in the fashion industry. These findings suggest that consumers are becoming more conscious of sustainability issues in the apparel industry and are considering environmental impacts when making purchasing decisions.

### 4.2.3 Descriptive Statistics of Purchase Intention

#### Table 12

Items	Statements	N	Min	Max	Mean	S.D.
PI1	The brand is one of the preferred	301	1	5	3.95	0.885
	brands I want to buy.					
PI2	I would definitely buy the brand in the	301	1	5	4.08	0.938
	future.					
PI3	I would seriously consider buying the	301	1	5	3.91	0.951
	brand.					
	Purchase Intention	301	1	5	3.98	0.925

Descriptive Statistics of Purchase Intention

Table 12 displays the results of the descriptive analysis for Purchase Intention. The mean score for purchase intention is 3.98 indicating that the respondents have a positive attitude towards purchasing the apparel brand. All of the statements in the table have a mean score above 3, demonstrating a strong positive response towards purchase intention for the brand. The highest mean score is 4.08 for item PI2, which suggests a definite purchase response from the respondents. The standard deviation is lowest for item PI1, indicating the least variation in response, and highest for PI3, which has a

standard deviation of 0.951. These findings suggest that the respondents have a favorable purchase intention towards the apparel brand.

## **4.3 Normality Test**

A normality test is a statistical test done to analyze whether a data set follows normal distribution or not. The normal distribution in a data set is important as many statistical methods has assumption about the data having normal distribution. In the instance the data is not normally distributed these statistical tests might not be suitable or may need adjustments. The Kolmogorov-Smirnov test and the Shapiro-Wilk test are commonly used to assess the normality of a dataset. These tests are designed to determine whether the data follows a normal distribution, and the null hypothesis for both tests is that the data is drawn from a normally distributed population.

### Table 13

### Tests of Normality

	Kolmogorov-Smirnova				Shapiro-W	Vilk
	Statistic	df	Sig.	Statistic	df	Sig.
BE1	0.315	301	.000	0.816	301	.000
BE2	0.281	301	.000	0.825	301	.000
BE3	0.267	301	.000	0.834	301	.000
BE4	0.252	301	.000	0.853	301	.000
BE5	0.257	301	.000	0.858	301	.000
BE6	0.278	301	.000	0.851	301	.000
BE7	0.296	301	.000	0.842	301	.000
BE8	0.259	301	.000	0.863	301	.000
BE9	0.242	301	.000	0.872	301	.000
BE10	0.254	301	.000	0.811	301	.000
BE11	0.27	301	.000	0.847	301	.000
BI1	0.334	301	.000	0.817	301	.000
BI2	0.252	301	.000	0.847	301	.000
BI3	0.296	301	.000	0.84	301	.000
BI4	0.279	301	.000	0.836	301	.000
BI5	0.235	301	.000	0.865	301	.000
BI6	0.236	301	.000	0.856	301	.000

BI7	0.261	301	.000	0.854	301	.000
BI8	0.235	301	.000	0.854	301	.000
BI9	0.254	301	.000	0.851	301	.000
BI10	0.248	301	.000	0.85	301	.000
BI11	0.261	301	.000	0.831	301	.000
BST1	0.284	301	.000	0.868	301	.000
BST2	0.227	301	.000	0.864	301	.000
BST3	0.261	301	.000	0.864	301	.000
BST4	0.304	301	.000	0.841	301	.000
BST5	0.242	301	.000	0.854	301	.000
BST6	0.256	301	.000	0.858	301	.000
BST7	0.252	301	.000	0.868	301	.000
BST8	0.248	301	.000	0.834	301	.000
BST9	0.257	301	.000	0.864	301	.000
BST10	0.289	301	.000	0.853	301	.000
BST11	0.215	301	.000	0.874	301	.000
BST12	0.275	301	.000	0.842	301	.000
BST13	0.247	301	.000	0.831	301	.000
BST14	0.254	301	.000	0.856	301	.000
BST15	0.249	301	.000	0.874	301	.000
PI1	0.305	301	.000	0.818	301	.000
PI2	0.254	301	.000	0.811	301	.000
PI3	0.27	301	.000	0.847	301	.000
CSK1	0.294	301	.000	0.819	301	.000
CSK2	0.26	301	.000	0.788	301	.000
CSK3	0.254	301	.000	0.786	301	.000
CSK4	0.261	301	.000	0.831	301	.000

a. Lilliefors Significance Correction

The results of the normality tests for the data set are presented in Table 13. According to both the Kolmogorov-Smirnov and Shapiro-Wilk tests, the null hypothesis of the data being derived from a normal distribution population is not accepted for the independent, dependent, and mediating variables at a 5% significance level. As the data does not follow normal distribution, parametric tests cannot be applied as these tests are based on the assumption of data following normal distribution. For analyzing non-

normal data with complex model and big number of constructs, PLS-SEM is the most powerful method (Hair et al., 2012; Kock, 2016). Hence, for analysis of measurement and theoretical model, PLS-SEM is applied in the study.

### 4.4 Measurement Model Assessment

The theoretical model illustrates the three lower order constructs or sub-components: Brand Equity, Brand Impression and Brand Strength and Brand Sustainability which is the higher order construct in the study. Higher order model is characterized as abstract which cannot be directly measured. They are assessed on the basis of their own subcomponents (lower order constructs). For the type of model used in the study with higher- order construct, there exists mainly four types of relationships among the lower order constructs and the higher order constructs. The relationship is the basis on which various techniques are applied to test the measurement and structural model. Four different types of relationships can exist for higher order constructs, including Reflective-Reflective HOC, Reflective-Formative HOC, Formative-Reflective HOC, and Formative-Formative HOC (Ringle et al., 2012).

The model of the study is based on the Reflective-Reflective relationship among the indicators and construct in both the lower and the higher order. For the test of measurement model in the Reflective- Reflective relationship the lower and the higher order model the tests are the same. Convergent validity, internal consistency and discriminant validity in both orders are used for validating the model having higher order construct. 'The repeated Indicator Approach', 'The Embedded Two-Stage Approach', 'The Disjoint Two-Stage Approach', 'The Extended Repeated Indicator Approach', and so on are among the many methods of validating higher-order models (Sarstedt et al., 2019). The Disjoint Two-Stage approach is utilized in the study for the purpose of validating and estimating the model.

#### 4.4.1 Analysis of Lower-Order Model

### **Convergent Validity**

In the convergent validity Outer Loadings and Average Variance Extracted (AVE) is tested. Hair et al. (2019) specified that a minimum loading value of 0.70 is required for each item and the minimum AVE value for each construct is 0.50.Table 14 shows that outer loadings of all items measuring different constructs crossed the threshold value

of 0.708, except the items (BE11 Loading = 0.696, BI1 Loading = 0.688, BI4 loading = 0.662, BI11 = 0.614, BTS8 loading = 0.624, BTS15 loading = 0.597). The values are still acceptable even though the cut off value is not met as it is higher than 0.50 and the criteria of AVE is also met simultaneously (Hair et al., 2009). The composite reliability and AVE would not have a significant increase with the removal of the items as the construct were already above the recommended threshold. Hence the items were not removed from further analysis. Each construct in the lower-order model has the AVE value above 0.50. Thus, the criteria of Convergent Validity have been satisfied.

Latent Variables	Items	Outer loadings	AVE
Brand Equity	BE1	0.726	0.554
	BE2	0.752	
	BE3	0.716	
	BE4	0.761	
	BE5	0.749	
	BE6	0.754	
	BE7	0.754	
	BE8	0.750	
	BE9	0.773	
	BE10	0.752	
	BE11	0.696	
Brand Impression	BI1	0.688	0.555
	BI2	0.713	
	BI3	0.700	
	BI4	0.662	
	BI5	0.770	
	BI6	0.842	
	BI7	0.804	
	BI8	0.835	
	BI9	0.750	
	BI10	0.780	

Lower Order Convergent Validity

	BI11	0.614	
Brand Strength	BST1	0.785	0.577
	BST2	0.817	
	BST3	0.781	
	BST4	0.804	
	BST5	0.790	
	BST6	0.759	
	BST7	0.779	
	BST8	0.624	
	BST9	0.716	
	BST10	0.779	
	BST11	0.807	
	BST12	0.805	
	BST13	0.787	
	BST14	0.730	
	BST15	0.597	
Customer Sustainability Knowledge	CSK1	0.780	0.631
	CSK2	0.774	
	CSK3	0.803	
	CSK4	0.818	
Purchase Intention	PI1	0.822	0.717
	PI2	0.864	
	PI3	0.855	

# **Internal Consistency and Reliability**

To assess the validity and reliability of the constructs, internal consistency and reliability are measured. To test the internal consistency and reliability, Cronbach's alpha and composite reliability are utilized. According to Fornell and Larker (1981), Cronbach's alphas and composite reliability exceeding 0.7 indicates acceptable internal consistency for the constructs. Table 15 demonstrates that each construct has met requirements for internal consistency and convergent validity.

Cronbach's alpha	Composite reliability
0.920	0.932
0.919	0.931
0.947	0.953
0.807	0.872
0.803	0.884
	0.920 0.919 0.947 0.807

Lower Order-Internal Consistency and Reliability

### **Discriminant Validity**

To determine whether constructs that are believed to be distinct from one another based on theory are not actually interrelated, discriminant validity is used. Cross-loadings, Fornell and Larcker's Criterion, and HTMT Criterion are among the methods used to assess discriminant validity.

### **Cross-Loadings**

In a study, an item is expected to have stronger associations with its own parent construct than with other constructs. If an item shows a stronger association with a different construct compared to its own parent construct, it suggests issues with discriminant validity. Cross-Loadings measures the strength of an indicator to accurately measure its own construct, without being highly correlated to other constructs. Its criteria is that the factor loadings of an indicator should be higher than its cross-loading factors with other constructs (Hair et al., 2017). A difference in loadings of less than .10 also suggests that the item may be cross-loading onto another construct, which can pose a threat to discriminant validity. The items BE10and BE11 of the Brand Equity construct, BI2, BI3, BI4 ,BI10 and BI11 of the Brand Impression constructs were removed on one of the two basis either their factor loadings were lower than its cross-loading factors or difference in loadings of less than .10. These items were removed from the constructs from further analysis. Hence, discriminant validity is satisfied.

Lower-Order Cross-Loadings

Code	BE	BI	BST	CSK	PI
BE1	0.745	0.494	0.503	0.309	0.526
BE2	0.773	0.54	0.558	0.401	0.54
BE3	0.745	0.533	0.573	0.397	0.496
BE4	0.775	0.559	0.596	0.350	0.577
BE5	0.758	0.517	0.547	0.260	0.558
BE6	0.752	0.502	0.564	0.278	0.572
BE7	0.783	0.520	0.544	0.309	0.527
BE8	0.782	0.562	0.564	0.353	0.490
BE9	0.787	0.612	0.660	0.374	0.553
BI1	0.602	0.667	0.556	0.331	0.455
BI5	0.621	0.769	0.654	0.401	0.527
BI6	0.565	0.881	0.631	0.503	0.507
BI7	0.513	0.87	0.632	0.486	0.451
BI8	0.557	0.888	0.645	0.488	0.461
BI9	0.574	0.772	0.596	0.391	0.512
BST4	0.594	0.660	0.792	0.438	0.526
BST5	0.608	0.642	0.793	0.450	0.585
BST6	0.593	0.590	0.788	0.394	0.555
BST8	0.42	0.409	0.667	0.282	0.513
BST9	0.546	0.539	0.749	0.352	0.469
BST10	0.589	0.638	0.803	0.395	0.556
BST11	0.656	0.665	0.800	0.438	0.544
BST13	0.627	0.615	0.782	0.375	0.538
BST15	0.415	0.431	0.669	0.317	0.452
CSK1	0.374	0.369	0.452	0.794	0.306
CSK2	0.338	0.389	0.343	0.778	0.261
CSK3	0.328	0.397	0.374	0.804	0.274
CSK4	0.358	0.530	0.429	0.804	0.356
PI1	0.599	0.510	0.582	0.367	0.834
PI2	0.625	0.542	0.617	0.342	0.860
PI3	0.557	0.464	0.559	0.253	0.847

### Fornell and Larcker's Criterion

The Fornell-Larcker Criterion evaluates discriminant validity by comparing the correlations between constructs and their average variance extracted (AVE), with the decision rule being that the square root of a construct's AVE must be greater than its correlation with other constructs. Table 17 illustrates that the bolded square roots of AVE for each construct are higher than their correlations with other constructs, as indicated in the rows below. Therefore, the lower-order model satisfies discriminant validity.

### Table 17

	BE	BI	BST	CSK	PI
BE	0.767				
BI	0.702	0.812			
BST	0.742	0.764	0.762		
CSK	0.441	0.538	0.506	0.795	
PI	0.702	0.598	0.693	0.381	0.847

# Lower Order-Fornell Larcker Criterion

### Heterotrait-Monotrait Criterion (HTMT)

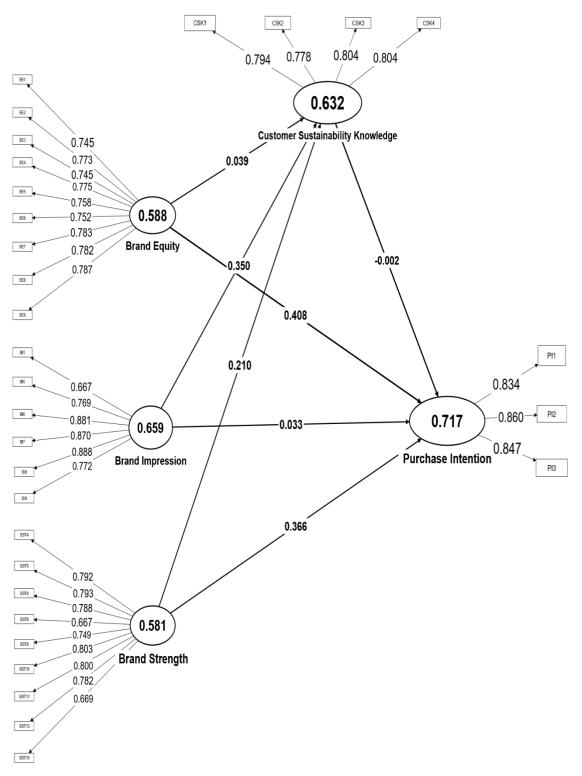
HTMT measures similarity between latent variables. It compares indicator correlations across constructs to indicator correlations within a construct. HTMT ratio's upper limit is 0.90 (Gold et al., 2001). Likewise, the HTMT ratio greater than 0.9 indicates discriminant validity issue in the variable (Henseler et al., 2015). Even so, it is recommended that the significance of the HTMT values be tested using a Bias-Corrected and Accelerated parameter by bootstrapping on a sub sample size of 10,000 (Henseler et al., 2015). Table 18 demonstrate that the HTMT ratios for each indicator is below 0.90 based on the original sample. Also based on the bootstrapped 95% confidence interval the values are significant. Therefore, discriminant validity is established.

	Original sample	Sample mean	CI2.5%	CI97.5%
	(0)	(M)		
BI <-> BE	0.782	0.781	0.696	0.853
BST <-> BE	0.808	0.807	0.732	0.869
BST <-> BI	0.843	0.842	0.788	0.890
CSK <-> BE	0.510	0.511	0.368	0.644
CSK <-> BI	0.621	0.622	0.507	0.730
CSK <-> BST	0.582	0.584	0.458	0.703
PI <-> BE	0.818	0.817	0.729	0.893
PI <-> BI	0.707	0.707	0.610	0.796
PI <-> BST	0.808	0.808	0.725	0.882
PI <-> CSK	0.464	0.468	0.312	0.618

Lower Order-HTMT (Bootstrapped with BCa)

# Figure 2

Lower-Order Measurement Model



*Note:* Figure 2 is the outer model which demonstrates the individual factor loadings of each indicator and the constructs depicts their AVE values.

### 4.4.2 Analysis of Higher-Order Measurement Model

The study employs a reflective-reflective relationship between the constructs in its framework. The scores of the latent variables derived from the lower-order constructs are utilized as input for the higher-order constructs for analysis. To validate the higher-order model, the same criteria for various tests are applied as for the lower-order, as both relationships in the model are reflective.

# **Convergent Validity**

The higher-order model's convergent validity is evaluated through factor loadings and average variance extracted (AVE). Table 19 presents the results, which indicate that all the indicators' factor loadings exceed the threshold value of 0.708, and the AVE criterion is met, with a value above 0.50, as suggested by Hair et al. (2009). These findings demonstrate that the convergent validity of the higher-order constructs is met.

# Table 19

Latent Variable	Indicator	Outer loadings	AVE
Brand Sustainability	BE	0.898	0.824
	BI	0.902	
	BST	0.923	
Customer Sustainability Knowledge	CSK1	0.800	0.633
	CSK2	0.779	
	CSK3	0.804	
	CSK4	0.798	
Purchase Intention	PI1	0.834	0.717
	PI2	0.861	
	PI3	0.846	

# Higher Order-Convergent Validity

### **Internal Consistency and reliability**

The internal consistency and reliability of the higher-order constructs is demonstrated by Table 20. The Cronbach's alpha criteria is met as it is above 0.70. Likewise the composite reliability is also above 0.70. According to Fornell and Larker (1981) Cronbach's alphas and composite reliability exceeding 0.7 indicates acceptable internal consistency for the constructs. Therefore, the internal consistency and reliability of the constructs is satisfied.

	Cronbach's alpha	Composite reliability
Brand Sustainability	0.893	0.934
Customer Sustainability	0.807	0.873
Knowledge		
Purchase Intention	0.803	0.884

Higher Order-Internal Consistency and Reliability

# **Discriminant Validity**

# **Cross-loadings**

Cross-loadings between the indicators is demonstrated by Table 21. The result depicts that the measures have loaded onto their own constructs properly and are highest in their own respective rows. The factors loadings (shaded in grey) are greater as compared to the cross-loading factors of the other constructs. Discriminant validity hence has been satisfied with the criteria of cross-loadings fulfilled.

## Table 21

# Higher-Order Cross Loadings

	Brand	Customer Sustainability	Purchase
	Sustainability	Knowledge	Intention
Brand Equity	0.898	0.441	0.702
Brand Impression	0.902	0.536	0.598
Brand Strength	0.923	0.506	0.693
CSK1	0.44	0.800	0.306
CSK2	0.392	0.779	0.261
CSK3	0.403	0.804	0.274
CSK4	0.483	0.798	0.356
PI1	0.622	0.366	0.834
PI2	0.656	0.342	0.861
PI3	0.581	0.253	0.846

### **Fornell-Larcker criterion**

Table 22 illustrates the application of the Fornell-Larcker criterion to the higher-order model. The table displays that the square root of AVE for each construct, indicated in bold on the upper rows, is greater than its correlation with other constructs, depicted in the corresponding lower rows. Hence, the Fornell-Larcker criterion is satisfied, and there is no evidence of discriminant validity issues among the higher-order constructs.

# Table 22

Brand	Customer	Purchase
Sustainability	Sustainability	Intention
	Knowledge	
0.908		
0.544	0.795	
0.733	0.380	0.847
	Sustainability 0.908 0.544	SustainabilitySustainability Knowledge0.9080.795

# Higher-Order Fornell & Larcker's Criterion

#### Heterotrait-Monotrait Criterion (HTMT)

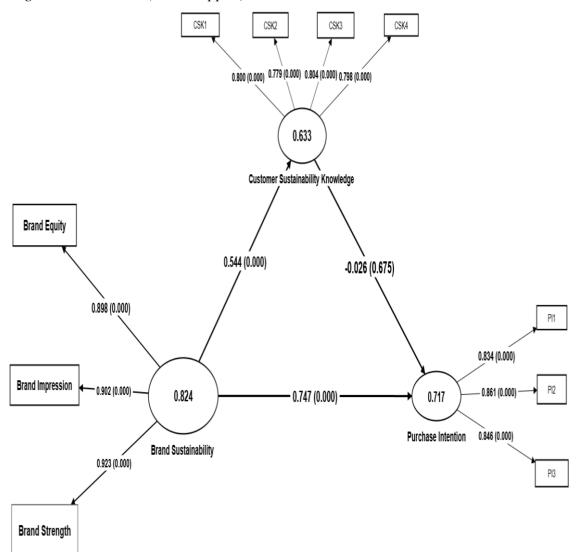
Demonstrated in Table 23, the HTMT ratios for each indicator is below 0.90 based on the original sample. HTMT ratio's upper limit is 0.90 (Gold et al., 2001). Likewise, the HTMT ratio greater than 0.9 indicates discriminant validity issue in the variable (Henseler et al., 2015). The significance of the HTMT values is tested using a Bias-Corrected and Accelerated parameter by bootstrapping on 10000 sub sample size. Based on the bootstrapped 95% confidence interval, the values are proved as significant as the original sample ( $\beta$ ) falls in between the two confidence interval. As per this illustrated result, the discriminant validity is established in the higher-order.

	Original sample (β)	Sample mean (M)	CI2.5 %	CI97.5 %
Customer Sustainability	0.636	0.638	0.512	0.756
Knowledge <-> Brand				
Sustainability				
Purchase Intention <-> Brand	0.862	0.863	0.785	0.931
Sustainability				
Purchase Intention <-> Customer	0.464	0.468	0.312	0.621
Sustainability Knowledge				

Higher-Order HTMT Criterion (Bootstrapped BCa)

### Figure 3

Higher-Order Model (Bootstrapped)



*Note:* The inner model demonstrates the path coefficients with their p-values. While on the contrary the outer model illustrates the Factor Loadings with their p-values. Also the constructs exhibit their respective AVE values.

# 4.5 Structural Model Assessment

After evaluating the measurement model, the structural model is assessed, which includes testing for collinearity issues, examining the predictive capacity of the model, and testing the study's hypotheses through the use of path coefficients. This analysis provides insights into the strength and direction of relationships between the constructs and the model's fitness overall.

### **Collinearity Assessment**

Multicollinearity refers to the strong correlation among predictor variables, which can cause difficulties in estimating the individual regression coefficients accurately. To identify the presence of multicollinearity in the study's model, the Variance Inflated Factor (VIF) is utilized. Typically, a VIF value should not exceed 5 according to Ringle et al. (2015). However, Hair et al. (2009) suggest a more lenient VIF limit of 10. Table 24 presents the VIF values of the inner model constructs, which are below the upper limit of 5, indicating that there are no issues of collinearity in the data.

# Table 24

	Brand	Customer	Purchase
	Sustainability	Sustainability	Intention
		Knowledge	
Brand Sustainability		1.000	1.420
Customer Sustainability			1.420
Knowledge			
Purchase Intention			

VIF-Inner Model

The coefficient of determination ( $\mathbb{R}^2$ ) describes how much of one factor's variability is influenced by its relationship to another.  $\mathbb{R}^2$  and F-square values determine the model's predictive ability. According to Hair et al. (2011)  $\mathbb{R}^2$  greater than 0.75 signify substantial predictive capacity, above 0.50 value signify moderate predictive capacity, whereas below 0.25 value signify weak predictive capability of the model. However, in social sciences and studies of consumer behavior, mainly for explaining independent variables like 'Customer Satisfaction' or 'Customer Loyalty',  $\mathbb{R}^2$  value around 0.2 is considered sufficient.  $\mathbb{R}^2$  measures the influence of independent variables on dependent variables. Table 25 demonstrates  $\mathbb{R}^2$  values which as per the guidelines recommended are satisfactory. To conclude, Brand Sustainability accounts for 29.6% of the change in Customer Sustainability Knowledge. Likewise, Brand Sustainability accounts for 53.8% of the change in Purchase Intention. Therefore, there is significant influence of exogenous variables on endogenous variable.

R square  $(R^2)$ 

	Original	Sample			р		2.50	97.50
	sample	mean	S.D.	T-stat	value	Bias	%	%
CSK	0.296	0.302	0.056	5.317	0	0.006	0.188	0.403
PI	0.538	0.542	0.051	10.473	0	0.004	0.429	0.633

Another method of assessing the model predicative capacity is F-square. This method finds out the predictive ability of the other variables though variable exclusion from the relation without the effect of the excluded variable. The excluded variable is determined to be of high importance in the model if the strength drops notably by excluding the variable. According to Cohen (2013), R-square below 0.02 value depicts no effect of the variable. Above 0.02 value and below 0.15 value is regarded a low effect size, above 0.15 and below 0.35 is regarded medium effect size and above 0.35 is regarded large effect size. Demonstrated in the Table 26, Brand Sustainability has large effect ( $F^2$ = 0.420) effect on Customer Sustainability Knowledge. Likewise, Brand Sustainability has large effect ( $F^2$ = 0.851) on Purchase Intention. Customer Sustainability Knowledge has no effect on purchase intention ( $F^2$ = 0.001).

*F*-Square  $(F^2)$ 

	Original sample (O)	Sample mean (M)	S.D.	T-stat	P value
BS -> CSK	0.420	0.443	0.118	3.546	0.00
BS -> PI	0.851	0.879	0.229	3.720	0.00
CSK -> PI	0.001	0.007	0.009	0.114	0.910

The adequacy of the model is assessed by using the Standardized Root Mean Square Residual (SRMR). Kock (2020) suggests that an SRMR value below 0.10 is considered acceptable, and a value below 0.08 indicates a good fit. The table shows that the SRMR value for the model is 0.069, indicating a good fit. Therefore, the results suggest that the model fits well.

### Table 27

SRMR Statistics

	Original	sample	Sample	mean	CI95%	CI99%
	(0)		(M)			
Saturated model	0.069		0.048		0.054	0.057
Estimated model	0.069		0.048		0.054	0.057

Hair et al. (2014) state that path coefficients, which indicate the strength and direction of the relationships between independent and dependent variables, can range from -1 to +1. A coefficient close to +1 suggests a strong positive correlation, while a coefficient close to -1 suggests a strong negative correlation.

Table 28 demonstrate that other than Customer Sustainability Knowledge -> Purchase Intention ( $\beta$ = -0.026), all the other remaining path coefficients ( $\beta$ ) are positive which indicates that the impact is in the same direction between variables. The beta coefficient demonstrates only the direction of the relationship between the variables. For establishing the significance, a Bias-Corrected and Accelerated bootstrapping with sub samples 10,000 is recommended (Hair et al., 2022).

The significance of the result is shown by the P-values. All the beta coefficients that fall between the upper and the lower confidence limits are significant with 95% confidence level. Since, Customer Sustainability Knowledge -> Purchase Intention's beta coefficient ( $\beta$ = -0.026) do not fall between its upper and the lower confidence limits (-0.141 and 0.098) its relationships is not significant with 95% confidence level. Therefore, Customer Sustainability Knowledge has no significant impact on Purchase Intention as its P-value is not significant. Brand Impression has no significant influence on Purchase Intention as

its p-value (0.647) is greater than 0.05. Brand Sustainability has the highest positive impact on Purchase intention (beta coefficient =0.747) and Brand impression has the lowest positive impact on purchase intention (beta coefficient =0.033). Brand Sustainability, Brand Equity, Brand Strength has a positive impact on Purchase Intention (P-value< 0.05). Based on the (P-value< 0.05). The analysis suggests that there exists a positive relationship between Brand Sustainability and Customer Sustainability Knowledge.

# Table 28

Path Coefficient

Path	Beta	Sample	e		P-	CI	CI
	(β)	mean	S.D.	T-stat	Value	2.50%	97.5%
Brand Sustainability ->							
Customer Sustainability Knowledge	0.544	0.547	0.051	10.651	0.000	0.434	0.635
Brand Sustainability ->							
Purchase Intention	0.747	0.745	0.054	13.885	0.000	0.632	0.840
Customer Sustainability							
Knowledge -> Purchase							
Intention	-0.026	-0.022	0.062	0.420	0.675	-0.141	0.098
Brand Equity -> Purchase							
Intention	0.408	0.409	0.074	5.498	0.000	0.265	0.556
Brand Impression ->							
Purchase Intention	0.033	0.032	0.073	0.458	0.647	-0.108	0.177
Brand Strength -> Purchase Intention	0.366	0.366	0.076	4.811	0.000	0.216	0.512

### Assessment of Mediating Role of Customer Sustainability knowledge

To evaluate the mediating role of Customer Sustainability Knowledge in the relationship

between Brand Sustainability and Purchase Intention, a mediation analysis was conducted. Direct path between brand sustainability and purchase intention is used to test the relationship initially and then to test the role of customer sustainability knowledge as a mediator indirect path is used.

# Table 29

Mediation Analysis

	β	Sample Mean (M)	S.D.	T Stat	P- Value	CI 2.50%	CI 97.50%
BS -> CS K -> PI	-0.014	-0.011	0.035	0.412	0.681	-0.076	0.059
BS-> PI	0.733	0.733	0.035	20.848	0.000	0.660	0.798

Bootstrap method was used to evaluate the mediation analysis. The Table 29 above exhibits the significance of the total indirect effect between the three variables at 5% confidence interval. The relationship is found to be not significant as the p-value (0.681) is greater than 0. This implies that there is no mediation effect between the two variables (brand sustainability and purchase intention), as the total indirect effect is not significant. There is significant positive total effect of Brand Sustainability on Purchase Intention (p-value < 0.05). Hence, customer sustainability knowledge has no mediation effect in the relationship.

### **Hypothesis Testing**

A two-tailed analysis was performed to test the study's hypothesis since the direction of the impact was uncertain. The significance level for hypothesis testing was set at 0.05. The results of the hypothesis test are presented in the table. It was found that Brand Sustainability has a significant positive impact on Purchase Intention, with both Brand Equity and Brand Strength components having a significant positive influence on Purchase Intention. Similarly, Brand Sustainability has a significant positive has a significant positive effect on Customer Sustainability Knowledge. However, the results did not support hypothesis H3, H5, and H7 at a 5% significance level, as the p-value of these hypotheses is greater than 0.05.

on Purchase Intention, Brand Impression has a significant impact on Purchase Intention, and Customer Sustainability Knowledge does not have a significant mediating effect between Brand Sustainability and Purchase Intention.

## Table 30

### Hypothesis Testing

Hypothesis	Statement	P-value	Result
H1	Brand Sustainability has a significant impact on	0.000	Supported
	Purchase Intention.		
H2	Brand Sustainability has a significant impact on	0.000	Supported
	Customer Sustainability Knowledge.		
H3	Customer Sustainability Knowledge has a	0.675	Not Supported
	significant impact on Purchase Intention.		
H4	Brand Equity has a significant impact on	0.000	Supported
	Purchase Intention.		
H5	Brand Impression has a significant impact on	0.647	Not Supported
	Purchase Intention.		
H6	Brand Strength has a significant impact on	0.000	Supported
	Purchase Intention.		
H7	Customer sustainability knowledge has a	0.681	Not Supported
	significant mediating effect between Brand		
	sustainability and purchase intention.		

### 4.6 Major Findings

The key findings from the analysis are:

- Out of the total 301 respondents, the majority of the respondents were female (59.5%) and the remaining 40.5% were male respondents.
- The age group with the highest percentage of respondents was 25 to 30 years old, comprising 33.2% of the total participants. This was followed by the 20 to 25 age group with 30.2%, 30 to 35 with 17.9%, below 20 with 9.6%, and above 35 with 9%.
- 3) In academic qualification majority of the respondents were qualified under Bachelor degree (45.8%), followed by Masters and above (39.5%) and

Intermediate and below (14.6%).

- 4) The majority of the respondents' monthly income range fell in the range of Less than 30000 (36.9%) with the range of 30000 to 60000 (36.5%) being tin the second and the least is in the range of Above 60000 (26.5%).
- 5) Majority of the respondents (90.7%) agree on sustainable apparel appeal to them. Only 9.3% disagreed on sustainable apparel appeal to them.
- 6) The majority of the respondents' purchase frequency for sustainable apparel is Often (Once a month) 43.9%. The least representation is Very Often (Once a week) which is 15.6%.
- 7) For majority of the respondents the importance for Sustainable Apparel Brand was "It promotes in protecting the environment" (52.5%), which is followed by "It supports good working condition for workers" (27.9%). The least representation was on "It promotes saving natural resources" (19.6%). Hence, the importance of sustainable apparel brand to consumers is that it promotes in protecting the environment.
- 8) The descriptive statistics of Brand Equity, Brand Impression, Brand Strength, mean value is over 3 which indicates that the respondents have positive opinion about the components of brand sustainability of the apparel brand. Thus the result indicates that the brand equity is high, the brand impression I positive and the brand strength is good of the apparel band that they thought of while placing their opinion in the questionnaire.
- 9) The descriptive statistics of Customer Sustainability Knowledge and Purchase Intention mean value is over 3 which indicates that the apparel consumers have high level of sustainability knowledge and the consumers of the apparel brand have positive purchase intention
- 10) The Variance Inflated Factor (VIF) was utilized to detect any multicollinearity issues among the variables. The VIF result was found to be lower than the acceptable threshold of 5, indicating that there were no significant collinearity issues in the model.

- 11) The criteria of measurement model which includes convergent validity, internal consistency and reliability, discriminant validity, cross-loading, Fornell and Lacker's criterion and HTMT are met in satisfactory way both in the lowerorder model and higher-order model.
- 12) The highest R<sup>2</sup> value is for Purchase Intention (53.8%). This indicates that about 53.8% of variability in Purchase Intention is explained by the components of Brand Sustainability which means that when there is change in the level of purchase intention in consumers the change is explained by the components of brand sustainability which includes brand equity, brand impression and brand strength. The remaining 46.2% of the variations are explained by factors not comprised by the model which means when there is change in purchase intention of the consumer the components of brand sustainability do not explain its change.
- 13) The  $F^2$  value was highest for the large effect of Brand Sustainability on Purchase Intention ( $F^2$ = 0.851) which means the brand sustainability is an important factor to influence consumer purchase intention in an apparel brand and this factor also has a huge effect on the influencing purchase intention in consumers. Likewise, Brand Sustainability has large effect ( $F^2$ =0.420) effect on Customer Sustainability Knowledge. This result indicates that when brands focus on sustainability, the consumers become aware about the concept of sustainability. Customer Sustainability Knowledge has no effect on purchase intention ( $F^2$ = 0.001). The result indicates that consumers who have sustainability knowledge or awareness about the concept of sustainability do not actually have purchase intention towards sustainable brands.
- 14) SRMR value indicate model fitness. The SRMR value obtained for the model is 0.069. This result signifies that it is an overall good model fit as below 0.08 estimated SRMR value depicts good fitness of the model. This means that the model of the study is a good fit.
- 15) Brand Sustainability has the highest path coefficient with Purchase intention (beta coefficient =0.747) which signifies that brand sustainability is the cause

for purchase intention in consumers of apparel brand. Brand impression has the lowest path coefficient with purchase intention (beta coefficient =0.033) which indicates that brand impression which is a component of brand sustainability is the least important factor for the cause of purchase intention in consumers of apparel brand.

16) The mediation assessment of customer sustainability knowledge between the two variables brand sustainability and purchase intention is assessed. The result of the mediation analysis was p-value greater than 0 (p-value= 0.681)) which signifies that there is no mediation effect in the relationship between the Brand Sustainability and Purchase Intention. It means that even though customer have knowledge about sustainability they do not ultimate have purchase intention towards a brand even though it has sustainability aspects incorporated into its brand.

#### **CHAPTER V**

### DISCUSSION, CONCLUSIONS AND IMPLICATIONS

#### 5.1 Discussion

The study has attempted to examine the impact of brand sustainability on purchase intention of Nepalese apparel consumers mediated by customer sustainability knowledge. The conceptual framework is formulated based on related and relevant literature review. Relationship between variables is determined on the basis of theory of sustainability, Triple Bottom Line theory, theory of planned behavior and theory of reasoned action. The association between brand sustainability and purchase intention has been extensively studied in the literature. The role of customer sustainability knowledge as a mediator between these two constructs has received less attention. The study has sought to establish the mediating role of customer sustainability knowledge.

The descriptive result of the study showed majority are attracted to sustainable apparel. Likewise, their purchase frequency is majorly often signifying once a month. The result indicated that the most important factor for sustainable apparel brand is that it promotes in protecting the environment.

The components of brand sustainability and their subsequent effect on purchase intention is also studied in the study. The study has tried to establish the component of brand sustainability which are Brand Equity, Brand Impression and Brand Strength. It is found from literature review that there is lack of study on the components of brand sustainability whereas the dimensions of brand sustainability is studied by several studies. The components of brand sustainability are determined through literature review and measurement scale is adopted from Moslehpour et al. (2019), Gidaković, et al. (2022) and Ray and Sharma (2020).

Brand Sustainability has a significant impact on purchase intention which indicates that sustainable brands can increase gain a competitive edge by catering to the expanding environmentally and socially conscious consumer market. The findings are supported by the studies Gidaković, (2022) and Sharma and Joshi, (2019).

In the study brand sustainability was found to have a significant impact on customer

sustainability knowledge which implies that when brand highlights its sustainability initiatives to the customers, it can increase consumer exposure to environmentally friendly and socially responsible behaviors, which can, in turn, enhance their knowledge of sustainable practices. This finding was supported by Veldwijk (2020).

Customer sustainability knowledge may not influence the consumers purchase intention. De Pelsmacker et al. (2005) found that despite their vocal support for sustainability, consumers are reluctant to actively support the sustainability movement. This finding was similar to the present study.

Moradi and Zarei (2011) revealed correlation exists between brand equity and the intention to make a purchase, with a positive association between the two. This finding is consistent to the finding of the present study that brand equity has a significant impact on purchase intention. The finding is also supported by Shah et al. (2016).

Brand impression was found to have no impact on the purchase intention of consumers which signifies that consumers' perception of the brand's image do not influence their decision to purchase the brand's product or service. This contradicts the finding of Gidaković et al. (2022).

Brand strength was found to have significant impact on purchase intention which indicates that the customers have purchase intention towards strong brands in the market. This result is supported by the article of Bhasin (2022) that stated strong brand has the potential to expand customer base, leading to a rise in both revenue and profits.

Limited studies have examined the intervening role of customer sustainability knowledge. In order to determine the mediating role of customer sustainability knowledge between brand sustainability and purchase intention, mediation analysis was performed. The result was customer knowledge about sustainability does not act as a mediator in the connection between brand sustainability and consumers' intention to make a purchase which is similar to De Pelsmacker et al. (2005). This phenomenon known as the attitude-behavior gap refers to the tenuous connection between consumers' favorable attitudes and their corresponding behaviors. This phenomenon is acknowledged widely in the field (Arbuthnott, 2009; Yates, 2008).

#### **5.2 Conclusions**

Consumers are becoming more conscious of their purchasing habits' environmental effects which leads to an increase in demand for sustainable and eco-friendly products. For apparel brands in Nepal, incorporating sustainability into their operations is important, as sustainability has become a vital component of a brand's image and reputation. The literature review found that when consumers perceive a brand as sustainable, they are more likely to exhibit stronger brand loyalty, making sustainability a factor influencing for purchase intention.

The study focuses on assessing impact brand sustainability has with purchase intentions customer have towards apparel brand in Nepal. The research attempts in assessment of customer sustainability knowledge mediating the association among brand sustainability with purchase intention. The results emphasize the significance of brand sustainability in influencing customers' purchasing decisions. By adopting sustainable practices and effectively communicating them to customers, apparel brands can enhance their reputation and cater to the growing demand for sustainable products in Nepal.

The study concludes that brand sustainability influence consumer purchase intention towards apparel brand. The research has conceptualized key components of brand sustainability: brand equity, brand impression and brand strength. Their impact on consumer purchase intention is also examined. The results indicate that Nepalese consumers are highly influenced by the sustainability of an apparel brand, and that incorporating sustainable practices can lead to increased brand loyalty and profitability. Additionally, the study found that customer sustainability knowledge does not mediate the relationship between brand sustainability and purchase intention, suggesting that apparel brands must focus on effectively communicating their sustainable practices to consumers to achieve maximum impact.

### **5.3 Implications**

### **5.3.1 Practical Implications**

As the apparel industry is rapidly growing, incorporating sustainability as a component of a brand's image and reputation is crucial. The study shows that brand sustainability has a significant impact on consumer purchase intention, indicating that apparel brands should prioritize sustainable practices and communicate them effectively to their consumers to impact consumer purchase intention. The study emphasizes the importance of incorporating sustainability as a key component of a brand's image.

The study also identifies and establishes the components of brand sustainability: Brand Equity, Brand Impression, and Brand Strength. The identification of the components of brand sustainability can guide apparel brands to prioritize specific aspects of sustainability in their operations and marketing efforts. Additionally, the findings highlight the importance of consumer sustainability knowledge and how it influences purchase intention. Apparel brands can use this information to educate their consumers about sustainable practices and products and increase their understanding of the impact of their purchasing decisions on the environment. The findings of the study can be used by apparel brands in Nepal to design and implement marketing strategies that focus on building sustainable brand images and improving their sustainability performance.

The study's finding provides insights into the Nepalese apparel industry. It highlights sustainable brand importance. The results from the study can be used by apparel brands in Nepal to improve their sustainability practices and strengthen their brand. The finding suggest that incorporating sustainability in the Nepalese apparel industry can benefit both the environment and the industry's long-term growth and success.

#### **5.3.2 Implications for Further Studies**

The present study assessed the impact of brand sustainability on purchase intention mediated by customer sustainability knowledge. The interrelation between the variables was conceptualized on the basis of literature review of the relevant field. The study has tried to establish the components of brand sustainability. The study has a sample size of 305. The qualified respondents are not attributed to any specific criteria. Their level of agreeableness was based on their opinion. Setting specific criteria for respondent selection for instance users of sustainable apparel brands may lead to more precise study results.

The study's framework has only included three component of brand sustainability, future researchers can work to explore for other components for assessment of their total

impact on the purchase intention. Besides that the study has used customer sustainability knowledge as the only mediating variable in the study. To increase the scope of future research study, other mediating variables may be integrated in the framework.

The sampling frame of the study is limited to Apparel Brands. Additional segments may be included in the research. The study uses components of brand sustainability for assessment and the lower order constructs themselves have their own indicator, some of which are redundant. This has caused the need for a shortened version of measurement scale as problems less dedication in participants are may be seen in data collection.

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## APPENDIX

## **Questionnaire of the Study**

Dear Respondents,

This study entitled "BRAND SUSTAINABILITY AND ITS IMPACT ON PURCHASE INTENTION: A STUDY ON APPAREL INDUSTRY" is a Graduate Research Project as a partial fulfillment of the requirement for the Masters in Business Administration(MBA) at School of Management, Tribhuvan University. The major objective of the study is to assess the impact of brand sustainability on purchase intention in the context of apparel industry in Nepal.

The researcher is seeking your insight on various aspects of the subjects with the survey questions to draw the conclusion for their research study. Your input on your own opinions would be valuable and appreciated. The information provided by you will be kept confidential and will be used for academic purpose only.

Thank you, for your participation.

Sincerely,

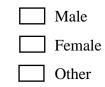
Numa Angbo

MBA Research Scholar

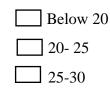
School of Management, Tribhuvan University

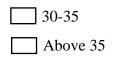
## A.Demographic Questions (Mark only one)

1. Gender:



2. Age (Years):





3. Education:



- Bachelor
- Masters and above

## 4. Monthly Income range

- Less than 30000
- 30000 to 60000
- Above 60000
- 5. Does sustainable fashion apparel (clothing) appeal to you?
  - Yes No

6. Frequency of sustainable apparel purchases

- Rarely (Once a year)
- Often (Once a month)
- Very Often (Once a week)
- 7. Sustainable (apparel) fashion brand is important to you because

It supports good working condition for workers

- - It promotes in protecting the environment
  - - It promotes saving natural resources

## **B. Likert Scale Questions**

Dear respondents, please complete the questionnaire by selecting only one answer for each of the statements where 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5=Strongly Agree

Please respond to the questions based on the Apparel (Clothing) Brand of your choice.

## Please respond to the information regarding Brand Equity.

S.N.	Statement	1	2	3	4	5
	Brand Awareness					
1.	I am aware of the brand.					
2	When I think of apparel brands, it is one of the					
	brands that comes to my mind.					
3.	I am familiar with the brand.					
4.	I know what the brand looks like.					
	Perceived Quality					
5.	The brand offers very good quality products.					
6.	The brand offers products of consistent quality.					
7.	The brand offers reliable products.					
8.	The brand offers products with quality features.					
	Perceived Prestige Value					
9.	The brand has prestigious product.					
10.	The brand has high status in the market.					
11.	The brand is top quality among my friends.					

## Please respond to the information regarding Brand Impression.

S.N.	Statement	1	2	3	4	5
	Brand Competence					
1.	The brand is capable in competing with its					

			1		
	competitors.	L			
2.	The brand is competent in its industry.				
3.	The brand is efficient in making its product.				
4.	The brand's product are skillfully made.				
	Brand Morality				
5.	The brand is fair in dealing with customers				
6.	The brand cares about the environment.				
7.	The brand is compassionate (concerned) towards the				
	environment welfare.				
	Brand Warmth				
8.	The brand is friendly towards the customers.				
9.	The brand is kind towards the environment.				
10.	The brand is likable as it has not been involved in any				
	major controversy.				
11.	The brand has nice (pleasant) public image.				

# Please respond to the information regarding Brand Strength.

S.N.	Statement	1	2	3	4	5
	Innovation					
1.	The brand focuses on research					
2.	The brand has ecofriendly proprietary ingredients.					
3.	The brand's management team supports it in terms of					
	investment					
	Agility					
4.	The brand is able to respond to market challenges and opportunities					

5.	The brand has the desire and ability to constantly evolve			
	and renew itself			
6.	The brand is clear about its customer insights			
	Positioning			
7.	The brand has differentiated positioning distinctive from			
	its competitors			
8.	The brand fits with customer needs			
9.	The brand sells across all the relevant demographics and			
	geographies			
	Delivering the brand promise			
10.	The brand provides good experience in all of their			
	interaction to customers.			
11.	The brand has a defined heritage.			
12.	The brand is capable of delivering high expectations of			
	the customers.			
	Awareness building			
13.	The brands' has distinctive qualities and characteristics			
14.	The brand has positive discussion by customers and			
	opinion formers in media.			
15.	The brand has strong distribution channels and			
	omnipresence in all geographies.			

# Please respond to the information regarding Customer Sustainability Knowledge.

S.N.	Statement	1	2	3	4	5
1.	I am aware of social equity issues such as working conditions of factory worker in the fashion industry.					

2.	I am aware of child labor in the global supply chain in the fashion industry.			
3.	I am informed of environmental issues such as waste and pollution caused by excessive production of garments in the fashion industry.			
4.	I am knowledgeable about the apparel (clothing) brands that sell eco-friendly fashion products.			

# Please respond to the information regarding Purchase Intention.

S.N.	Statement	1	2	3	4	5
1.	The brand is one of the preferred brands I want to buy.					
2.	I would definitely buy the brand in the future.					
3.	I would seriously consider buying the brand.					

Thank you.