Integrating the green consumption dimension: Consumer Styles Inventory scale development and validation

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ABSTRACT

Organisations are increasingly seeking to understand green consumer decision-making and cater for these consumers accordingly. Despite significant practitioner interest, scholarly inquiry into the Green Consumption Styles (i.e., GCS) concept has transpired only relatively recently, resulting in a limited understanding of the concept, and its measurement to-date.

Employing an integrative multimethod approach, this thesis addresses this literature gap by developing a measurement instrument for the 'green consumption scale' (i.e., GCS) in the context of Tanzania and New Zealand.

This thesis is presented in three parts. Part I reports on a literature review and preliminary qualitative research (see Chapters 1-2) conducted to explore/define GCS, and develop an initial GCS item pool. GCS is looked at as "the ways consumers steer their green buying-decision process regarding information searching, evaluation, selection, and purchases."

Part II (Chapter 3-4) provides a theoretical rationale for adopting scale development research in this thesis as well as an overview of the proposed mixed methods research methodology (Chapter 3). It further provides specifications for data-analytical techniques and procedures adopted in this research. Key qualitative research findings were documented in section 3.6, which included the development of the proposed GCS definition, antecedents, and consequences.

Chapter 4 dealt with the quantitative analysis of the thesis. A series of EFA and CFA procedures were consecutively undertaken to further assess the GCS scale in study 1 and 2. To explore the scale's dimensionality, Study 1 an exploratory factor analysis (EFA) results revealed and substantiated a nine-factor, 31-item GCS structure (i.e., green consumption, brand conscious, Recreational, Perfectionistic, Impulsiveness, confused by over-choice, Habitual/brand-loyal, Novelty-fashion-conscious, and Price Conscious) (Table 4.12) using a sample of n=448. Finally, the results suggest a combined (original CSI scale by Sproles and Kendall (1986) plus green scale 9-factor solution with 31-items (see Chapter 4). Using the reduced, 31- item scale and a new sample of n=225 Tanzania and New Zealand-based consumers, confirmatory factor analysis (CFA) is undertaken in study 2 to confirm the nine-factor, 31-item GCS scale (section 4.3). This analysis also facilitated the assessments for the model construct validity (Chapter 4). CFA was also conducted, which served to confirm the nine-factor, 31-item GCS scale. Further, regression analyses have been done to provide predictive validity of the newly developed GCS measure was undertaken. The findings indicated the attainment of high GCS items scores across the two samples; thus, providing evidence for the robustness of the GCS scale across samples and cultures. Furthermore, adequate Cronbach's alphas were reported for each of the proposed GCS factors, in addition to the overall GCS scale.

Part III provides the contributions, limitations and future research directions arising from this thesis (Chapter 5). The chapter commenced with an overview of key contributions of this research, followed by an overview of the key research limitations and directions for future research.

Keywords: Green consumption scale, structural equation modelling, scale development.

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PART I:

PREFACE, LITERATURE REVIEW & CONCEPTUAL DEVELOPMENT

CHAPTER 1 **INTRODUCTION**

1.1 Background of the Study

Marketers believe that consumers' consumption style has an influence on the purchasing decision of a consumer. Yet, the exact structure of the factors influencing the decision is still debated. Specifically, a recent trend in consumer decision making is a growing demand for green and sustainable products. For example organic food demand in China has quadrupled between 2010-2015 and is expected to continue to rise (Li, Ge, & Bai, 2013; McCarthy, 2015). Further, organic food demand has increased by double-digits since 1990 (USDA ERS, 2016; Trauger and Murphy, 2013), growing faster than all other food sectors (Nie & Zepeda, 2011) with demand growth projected at 14% per annum until 2018 (Daniells, 2014; Mosier & Thilman, 2016). Further, certified organic cropland in the United States increased from 163,250 to 1,248,000 hectares between 1992 and 2011 (USDA ERS, 2013). Moreover, organic food sales have experienced tremendous growth in the last decade reaching a USD 43 billion mark in 2016 (Statista, 2017). There is also an increase in organic food research activity and funding (USDA ERS, 2015).

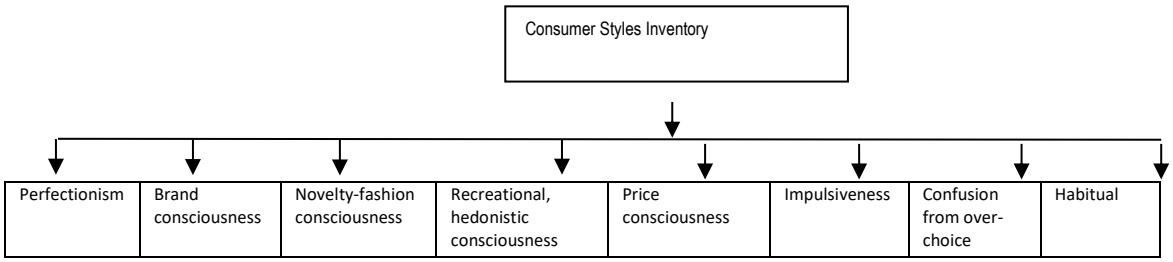
This growing demand for green products reflects changes in consumer decision making-styles and attitudes, as consumers set up a kind of attitude towards green consumption (Yoon, 2013). Yet, measures to capture this green orientation in the context of consumer decision making are still virtually non-existent. This situation therefore calls for researchers and marketers to identify the types of consumption factors that influence consumer's decision-making. This is a gap that this study aims to fill.

1.2 Consumer Decision-Making Styles (CDMS) Concept

The concept of *Consumer Decision-Making Styles* (CDMS) refers to the ways consumers steer their buying-decision process regarding information searching, evaluation, selection, and purchases (Sproles & Kendall, 1986). These styles may differ depending on products and the market (Bauer, Sauer, & Becker, 2006). Marketers use CDMS to evaluate market segments and for developing effective positioning strategies (Walsh, Thurau, & Mitchell, 2001; Wang, Siu, & Hui, 2004), and for understanding cultural differences in buying, decision-making styles, and product adoption (Walsh, Mitchell, & Hennig-Thurau, 2001).

The most generally recognised approach to general Consumer Decision-Making Styles is the study of "Consumers Styles Inventory" (Sproles & Kendall, 1986). The CSI's key assumption is that each consumer has a specific decision-making style, involving individual decision-making dimensions (Wesley, LeHew, & Woodside, 2006). While this CSI inventory undoubtedly represents a systematic measure of buying orientations using decision-making coordination, it does not take the most recent consumer developments, such as emerging changes towards green orientation. Specifically, the CSI construct is comprised of eight dimensions as summarised in Figure 1.1 and Table 1.1 respectively.

Figure 1.1: Consumer Decision-Making Styles



The *Consumer Styles Inventory* (Li et al., 2013; McCarthy, 2015; Zsóka et al., 2013) is defined as a consumer characteristics approach with emphasis on cognitive and affective consumer decision-making styles (CDMS) (Sproles & Kendall, 1986). It also measures the type of mental characteristics that are present when consumers make purchasing decisions (Sinkovics, Leelapanyalert, & Yamin, 2010).

Table 1.1: Consumer Decision-Making Styles: dimension description

No	Decision-making style	Description
1	Perfectionism, high-quality conscious	Search for the best quality in products; shop more carefully, more systematically, or by comparison; not satisfied with the "good enough" product.
2	Brand consciousness / Price Equals Quality	Oriented toward buying more expensive well-known brands. Likely to believe that higher price equals higher quality; have a positive attitude towards stores with brand names and higher prices; prefer bestselling advertised brands.
3	Novelty-fashion conscious	Fashion and novelty conscious; gain excitement and pleasure from seeking out new things; keep up-to-date with styles; like being in style; seek variety.
4	Recreational, hedonistic	Feel pleasure to shop; shop just for fun of it; shop for recreation and entertainment.
5	Price and "value for money"	Look for sale prices; conscious of lower prices in general; concerned with getting the best value for money; comparison shoppers.
6	Impulsiveness, Careless	Do not plan their shopping; unconcerned about how much they spend or about the "best buys."
7	Confused by over-choice	Perceive many stores and brands from which to choose, and have problem in making choices; experience information overload. Proliferation of brands, stores, and consumer information
8	Habitual, brand-loyal	Likely to have favourite brands, stores and form habit to choosing these.

Developed from Sproles and Kendall (1986).

For the past few decades, Consumer Decision-Making Styles (CDMS) outcomes for different cultures have been studied widely using Sproles and Kendall's (1986) CSI framework. The results of those studies (e.g. Chen et al., 2012; Durvasula et al., 1993; Kwan et al., 2008; Sinkovics et al., 2010; Sproles & Kendall, 1986, Sproles and Sproles, 1990; Zhou et al., 2010) generally supported the framework. Hence, Sproles and Kendall's CSI model has been taken as consistent and universal (Chen et al., 2012; Sinkovics et al., 2010; Zhou et al., 2010). Yet, while CSI has been considered the most superior, stable, and widely used CDMS scale across the globe (Hafstrom et al., 1992; Lysonski et al., 1996; Sinkovics et al., 2010; Wickliffe, 2004), there are several important issues raised with this model.

1.3 Culture and CSI

Although the CSI framework has been recognized as universal, prior research suggests that culture is an important moderator of this framework. For example, researchers (Chen et al., 2012; Cowart & Goldsmith, 2007; Wickliffe, 2004; Yang & Wu, 2007) argued that the interpretation of CSI could only be fully understood in the consumption context of a given culture. This means, one CSI style scale that is seen suitable in one culture may be regarded unsuitable in another culture (McCarthy, 2015; Wickliffe, 2004; Yasin, 2009), because among the most important factors that influence consumers' decision-making styles is the contexts they are in.

Consistently, various studies reported that consumers differ in their consumption behaviour patterns due to differences in their cultural background (Solka et al., 2011). For example, when consumers are frequently exposed to a given culture, they become affected by the norms and values of that particular culture. Subsequently, the learned norms and values offer criteria that consumers will use to direct their own consumption decisions. Therefore, these different cultural orientations lead to different consumer decision-making orientation and the meanings given for such interactions may also vary among cultures (Wicklife, 2004).

Further, Wickliffe (2004) argued that Sproles and Kendall's American-based CSI might not be culturally relevant and meaningful to consumers in Asia, Africa, or Latin America as they attribute different meanings to consumption values as for Europeans and North Americans (Melnyk, Giarratana & Torres, 2013). This is because CDMS have been extensively studied in the west, and to a much lesser extent in developing countries (Wang et al., 2004; Byrne, 2010). Consistently, studies (e.g. Kacen & Lee, 2002; Kim et al., 2009) carried out in emerging Asian cultures like China, Taiwan, and Korea have provided evidence that CSI in emerging countries may reveal somewhat different results from those shown in Western cultures; as some CSI factors and dimensions were rejected and new ones emerged (Zhou, Arnold, Pereira, & Yu, 2010).

In additional, there has been variations in the identified CSI dimensions among different studies from different countries (Solka et al., 2011). Many studies have found that the CSI differs between intra-cultural cohorts (Hafstrom et al., 1992; Lysonski et al., 1996). For instance, Kwan, Yeung, and Au (2008) reported that Chinese consumers in different locations display different CDMS. Correspondingly, Kamaruddin and Mokhlis (2003) showed the presence of intra-cultural differences in Chinese Malay. The presence of intracultural differences was as well reported in studies carried out in Taiwan and the US (Chen et al., 2012; Cowart & Goldsmith, 2007; Yang & Wu, 2007). Yet, the nature of the differences remain unclear and there was a call in the literature for extending CSI for emerging countries (Eun Park, Yu, & Xin Zhou, 2010; Kavas & Yesilada, 2007; Sinkovics, 'Mink' Leelapanyalert, & Yamin, 2010) .

1.4 Green Consumption

While CSI has been an established instrument, focusing on culture, age, gender, regular products, and services over the last decade (Cowart & Goldsmith, 2007; Hafstrom, Chae, & Chung, 1992; Kasper, Bloemer, & Driessen, 2010; Lysonski et al., 1996; Solka, Jackson, & Lee, 2011), however, the instrument did not incorporate recent consumer trends, such as the emergence of organic food consumption (Wang et al.,

2004; Yasin, 2009; Dumortier et al., 2017). Furthermore, the CSI has not captured new CDMS dimensions and traits such as fair trade and green consumption.

Green Consumption is taken here to refer to the consumption of goods and services that are: biodegradable, recyclable, fair traded, organic, non-toxic, eco-friendly, or renewable (Autio, Heiskanen, & Heinonen, 2009; Murphy & Jenner-Leuthart, 2011; Ibok & Etuk, 2014; Trauger & Murphy, 2013; Wu & Chen, 2014). As a result, little is known about potential green consumption aspects of the CDMS scale's characteristics, including conceptualisation, profiling, and operationalisation, which are critical for marketers, policy makers, consumer counsellors, and researchers.

1.5 Statement of the Problem and Research Questions

The general goal of this study is to address the two major gaps with regards to the Consumer Decision-Making Styles (CDMS), i.e., 1) to develop a measure that captures the recent developments in the green consumption domain and 2) to test the generalisability of the measure across both developed and developing countries.

In particular, this research aims to 1) develop and comprehensively validate green CSI scale (instrument) in the context of Consumer Decision-Making Styles (CDMS) measure and 2) examine consumers' purchasing decision-making of different products using the newly developed green CSI scale separately and as a part of the CSI measure 3) across both emerging (Tanzania) and developed (Marshall, Baldwin, Peach, 2008) country contexts. Therefore, the present study was designed to answer the following research questions.

Research Question1.

What are the types of green Consumer Decision-Making Styles (CDMS) exercised in New Zealand and Tanzania?

Research Question 2.

Which items should constitute the green consumption scale?

Research Question 3.

To what extent does the newly developed green CSI scale measure consumers' consumption style and is generalizable across both developed and emerging countries?

1.6 Objectives of the Study

The general objectives of this study were (a) to develop and validate green CSI scale, and then (b) to investigate green Consumer Decision-Making Styles (CDMS) with consumers' buying and consumption style. Specifically, the study intends to:

- identify the types of green Consumer Decision-Making Styles (CDMS) exercised in New Zealand and Tanzania.
- Develop and validate a new green CSI scale.
- investigate the extent to which the newly developed green CSI relates to consumers' consumption styles across both developed (Marshall et al., 2008) and emerging (Tanzania) countries.

1.7 Significance of the Study

This study contributes to consumer decision-making research (Chaudhary & Dey, 2016; Merriam, 2017; Sproles & Kendall, 1986; Frimpong, Nwankwo, & Omar, 2015) by developing and comprehensively validating green consumption CSI scale as perceived by consumers about their own consumption styles (Diamantopoulos, Schlegelmilch, Sinkovics, & Bohlen, 2003; Joshi & Rahman, 2015; Lee, 2009; Sehgal, Landran, & Singh). Likewise, this study is significant in developing a green consumption scale that is validated within both developed and emerging economies (New Zealand and Tanzanian respectively) green consumption contexts.

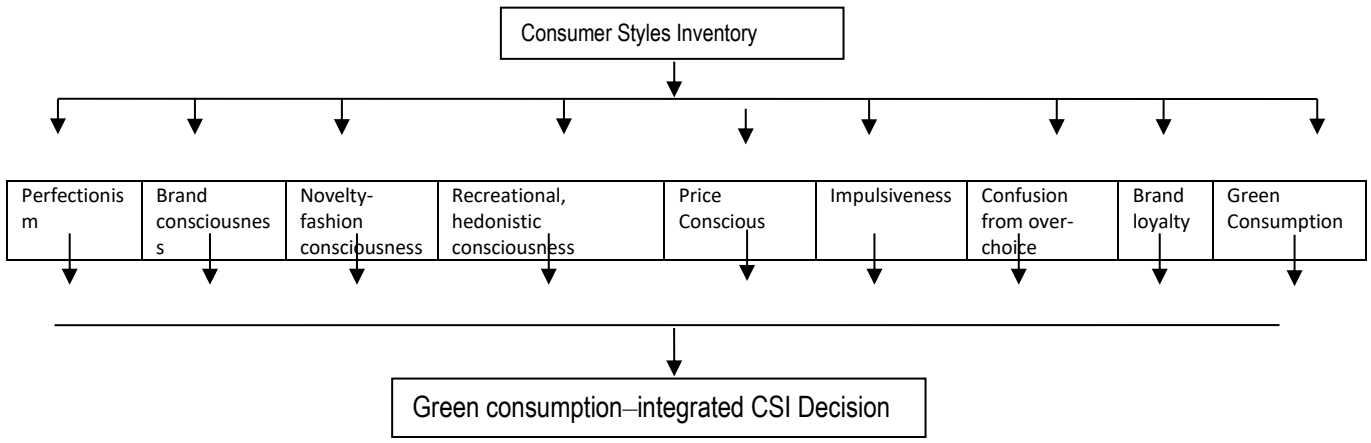
There is a scarcity of studies on CDMS in Tanzania and other African countries, and so one cannot draw a conclusion regarding the predominant consumption style exercised in Tanzania. The newly developed consumption instrument will be of a great importance for researchers, consumers, marketers and other organizations that work with consumers. It is hoped that it will provide researchers with a valid and reliable instrument for measuring green consumption style objectively. Moreover, it provides insight for consumers and other interested stakeholders who work in the area by identifying the most dominant green-consumption style in the said countries.

Finally, developing and validating a suitable green-consumption CSI scale in the context of developing country like Tanzania contributes to the research on environmental issues in emerging countries because such studies are very scarce in the context of the emerging economies (Biswas & Roy, 2015; Saxena & Khandelwal, 2010)

1.8 Theoretical Framework

This research uses Consumer Styles Inventory (Zsóka et al., 2013) theoretical model and concept as its theoretical framework; and the two countries' consumer market providing a worthy context to explore the CSI concept more closely. Furthermore, CSI growth and popularity deem it a worthy scale development research context in which to study consumer decision-making styles (DMS). From different studies, it appears that marketers and academics have not yet identified the predictors, roles, processes, and effects associated with the CSI green consumption dimension (Wesley et al., 2006; Sinkovics et al., 2010). As such, this study proposes a new green dimension CSI framework namely "green consumption". The green consumption dimension is the newly proposed dimension to the original CSI scale as shown in the proposed new framework in Figure 1.2 below.

Figure 1.2 Green - Consumption CSI Framework



1.9 Research design

This study employs multi-method approach, making use of both qualitative and quantitative techniques. First, exploratory research design was employed to explore the types of green Consumer Decision-Making Styles (CDMS) and their indicators qualitatively, then followed by quantitative technique to examine the psychometric properties of the scale. Samples were drawn from the general public in New Zealand and Tanzania using simple random sampling and stratified random sampling.

Data for qualitative analysis was collected using a) focus groups, b) interviews, and c) discussions with expert judges. The data for quantitative analysis were gathered using on-line survey across 2 studies, involving New Zealand and Tanzanian samples.

Based on the qualitative research, a preliminary item pool of 10 Green Consumption Scale (GCS) items are identified and proposed (see Chapters 2 and 3). In order to explore the scale's dimensionality, Study 1 an exploratory factor analysis revealed a 9 Item Solution for the Green Factor using a sample of n=448. Finally, the results suggest a combined (original CSI scale by Sproles and Kendall (1986) plus green scale) nine-factor solution with , 31-item (see Chapter 4). Using the reduced, 31- item scale and a new sample of n=225 Tanzania and New Zealand-based consumers, confirmatory factor analysis is undertaken in study 2 to confirm the nine-factor, 31-item GCS scale (Chapter 4). This analysis also facilitated the assessments for the model construct validity (Chapter 4).

1.10 Thesis Structure

This thesis is structured into three parts representing the stages undertaken in this research process. Part I provides an introduction, literature review and conceptual development for this research. This chapter has presented an introduction and thesis overview by identifying a key literature gap, and addressing how this research attempts to remedy this gap. This chapter has also introduced the conceptual foundations underlying this research, and provided an overview of the research purpose and methodology, as well as the expected contributions. The next chapter provides a review of recent CDMS research in Consumer Behaviour, and addresses the preliminary GCS conceptual development procedures undertaken. Further, Chapter 2 reviews key literature addressing the application of CDMS in green consumption in emerging market settings.

Part II provides an overview of the adopted mixed method research approach and its relevance. Qualitative research using in-depth-interviews and focus group was first conducted to explore the nature and features of GCS (Chapter 3). The GCS scale development procedures and model validity assessments are reported in Chapter 4.

Finally, Part III addresses the research contributions, limitations, and future directions arising from this research. Specifically, Chapter 5 identifies key contributions and implications arising from the research, and provides an overview of selected limitations inherent in this research. The thesis concludes by proposing future research directions.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction and overview

This chapter presents the review of previous research on CDMS, CSI, and scale development and validation. In line with this, a review of relevant consumption research in different countries is discussed as well as the concept of green consumption dimension in CSI scale. This chapter also discusses the scale development and validation models and procedures relevant to this research. Finally, the results of the literature review were summarized, and the directions for the current study are also underscored.

2.2 Consumer Decision-Making Styles (CDMS): Definition and an overview

The concept of CDMS refers to the ways consumers steer their buying-decision process regarding information searching, evaluation, selection, and purchases (Sproles & Kendall, 1986). These styles may differ depending on products and the market (Bauer, Sauer, & Becker, 2006). For example, consumers tend to be more price-, brand-, and quality-conscious for luxury products than convenience goods in their decision-making styles (Leo, Bennett, & Härtel, 2005b).

Marketers use CDMS to evaluate market segments and for developing effective positioning strategies (Walsh, Thurau, & Mitchell, 2001; Wang, Siu, & Hui, 2004), and for understanding cultural differences in buying, decision-making styles, and product adoption (Walsh, Mitchell, & Hennig-Thurau, 2001). However, substantial academic research has focused on traditional products in evaluating CDMS (Walsh, Thurau, Mitchell, 2001) paying little attention to green consumption. Generally, from the above given explanations, it can be said that CDMS involves behavioural, attitudinal, and emotional interactions in which consumer meet consumption needs and wants

CDMS have been popular since the 1950s and used in numerous studies from local to cross-country comparison studies during the late 1980s (Yasin, 2009). Among the three CDMS instruments (the CSI, Consumer Typology, and Consumer lifestyle), this study will concentrate on the CSI for the reasons explained in Chapter 1.

The CSI was developed by Sproles and Kendall in 1986. The main theoretical assumption behind Sproles and Kendall (1986) ideas about CDMS is that consumers have eight different decision-making dimensions that determine the shopping decisions they make. As people continue to buy, it is imperative to understand how they make decisions as consumers, which calls for a better understanding of CDMS because it is linked to their purchase behaviours (Mitchell & Bates, 1998; Yasin, 2009).

The CSI is used to profile, understand, and predict consumers' buying behaviour and loyalty (Zhou et al., 2010). It can also be applied as a consumer education tool and as a counselling device; for market segmentation, positioning, and marketing-mix adjustment strategies for goods and services (Mitchell & Bates, 1998; Yasin, 2009); as a quantitative technique for categorising consumers' heterogeneous decision-making styles into discrete categories (Lysonski et al., 1996). This last feature is one of the factors that informed the choice of methodology approach for this study.

Despite the usefulness of the CSI, it has been observed that some goods and services are not general, some CSI respondents may be encouraged to take one product as their primary point of reference, which limits its ability to measure consumers' decision-making styles (Mitchell & Bates, 1998). Also, the use of the US-based CSI might disguise the richness of country-specific CDMS, which an ethnographically grounded instrument might uncover (Mitchell & Bates, 1998). This is because some cultures differ in the extent to which the CSI dimensions were confirmed (Lysonski et al., 1996). Therefore, in order to have a better understanding of the CSI concept, a discussion of its profile, reliability, validity, applicability, and the newly proposed green consumption dimension is discussed hereunder. I commence with a discussion of the validity, reliability, generalisability, and applicability of the CSI across cultures, demographics, and social classes. This is essential as it is important to establish how the CSI scale performed in past studies in different nations and times.

2.3 CSI validity, reliability, generalizability, and applicability

Debate over the validity, reliability, applicability, and generalisability of the CSI continues. Proponents of the CSI argue that most of its variables have satisfactory or higher reliability (Zhou et al., 2010). This position is also supported by Sproles and Sproles (1990), who found statistically significant relationships between learning and the CSI characteristics. Hafstrom et al. (1992) examined and compared the consumer decision-making styles of US and Korean youth, and found that they shared seven out of eight styles. This may mean that youth across the globe can be marketed to in an almost similar fashion by international marketers, hence reducing marketing costs and improving marketing results. Further, these researchers concluded that the CSI has elements of construct validity and usage potential across nations. In a New Zealand study (Durvasula et al. 1993) the generalisability of the CSI was compared to the US original, the results showed that the similarities between these two countries outweighed the differences, hence providing general support for the CSI scale.

Ten years after the introduction of the CSI, Lysonski et al. (1996) researched the CSI in four diverse countries (Greece, India, New Zealand, and the US) in a major study, and they confirmed seven out of the eight factors with 34 items. Similarly, Mitchell and Bates (1998) found evidence for generalisability of CSI styles and showed that most of the original US traits were found in the UK. Later, Mitchell and Walsh (2004) reported that German consumers found that seven out of eight CSI characteristics were valid for female consumers. Twenty years after the introduction of CSI, Bakewell and Mitchell (2006), confirmed all of the eight original US CSI factors, compared to the previous study in the UK by Mitchell and Bates (1998), which confirmed six factors only. Hence, this shows a good progress on the validity and reliability of the CSI model with time. This may imply that as time goes on so does the confirmation of the CSI instrument. Similarly, Wesley et al. (2006) findings supported the CSI's applicability among adult shoppers in different mall contexts in America. Further, Yang and Wu (2007) confirmed six characteristics of the CSI for Taiwanese internet shoppers, and five years later all eight CSI factors were confirmed in Taiwan (Chen et al., 2012). Likewise, Sinkovics et al. (2010) confirmed the CSI with results that are congruent with findings from earlier studies using student

samples. This confirmatory-oriented progress regarding the CSI could be a good sign of acceptability and reliability of the CSI instrument.

Even though there is some evidence for the cross-cultural validity of the CSI, several face-validity problems became evident when validating the scale by respondents from outside the US, hindering meaningful validation (Mitchell & Bates, 1998). Some studies have shown mixed results in the validity and reliability of the CSI. For example, Lysonski et al. (1996) showed that the CSI requires additional psychometric work before it can be applied to other countries, mainly less-developed countries. Also, some researchers have confirmed less than six factors in their CSI studies (Hiu et al., 2001; Walsh, Thurau, et al., 2001).

Mitchell and Walsh (2004) demonstrated that the CSI is gender-biased and has constructed validity for females, but not for males. If one group of consumers is omitted with regard to the CSI, then this is a sign of a problem. In another study, Wickliffe (2004) showed that the CSI is not a reliable or valid measure of CDMS in both Korea and the US. However, regarding Wickliffe (2004) study, it is unclear whether these differences are caused by population variances, or analytical and interpretation problems (Mitchell & Bates, 1998). Some researchers suggest that the differences among economies may affect the generalisability of the CSI as a consumer decision-making gauge (Lysonski et al., 1996).

Following the above argument, there are some questions that will require answers, such as: what type and level of the economy has a positive or negative impact on the CSI, as well as what effect an economy has on CSI and consumer decision-making styles, and many other questions. Adding to that, some researchers have the opinion that the differences seen in CSI factor loadings may be due to chance variation, researcher bias, recording, coding, data analysis errors, change in the phenomenon over time, difficulty in interpreting the CSI in other countries, and cultural differences in decision-making styles (Lysonski et al., 1996 ; Mitchell & Bates, 1998; Yasin, 2009). However, it seems most studies followed a similar CSI construct and approach to that used in the original study, and still produced different results, as shown in Table 2.1 below. These inconsistent results raise some concern about the CSI scale.

Table 2.1 CSI validity, reliability, generalizability and applicability results (Cronbach Alpha)

No.	Reference	Country	Factors							
			Perfectionist	Brand conscious	Novelty-fashion conscious	Recreational Shopping conscious	Price conscious/Value for the money	Impulsive	Confused by over-choice	Habitual brand loyal
1	(Sproles & Kendall, 1986)	US	0.74	0.75	0.74	0.76	0.48	0.48	0.55	0.53
2	(Hafstrom et al., 1992)	US & KR	0.77	0.84		0.70	0.31	0.54	0.54	0.34
3	(Durvasula et al., 1993)	US	0.74	0.75	0.74	0.76	0.48	0.48	0.55	0.53
		NZ	0.75	0.59	0.70	0.82	0.50	0.71	0.66	0.58
4	(Lysonski et al., 1996)	NZ	0.8	0.59	0.75	0.82		0.71	0.66	0.54
		GR	0.6	0.68	0.63	0.61		0.64	0.55	0.34
		US	0.72	0.63	0.75	0.85		0.68	0.69	0.62
		IN	0.61	0.71	0.72	0.45		0.41	0.64	0.51
5	(Fan & Xio, 1998)	CN		0.61			0.59			
6	(Hiu et al., 2001)	CN	0.68	0.37	0.65	0.72	0.51		0.62	0.40
7	(Walsh, Thurau, et al., 2001)	DE	0.77	0.48	0.71	0.42		0.61	0.76	
8	(Bakewell & Mitchell, 2004)	UK	0.27	0.76	0.73	0.36	0.36	0.26	0.64	0.09

9	(Wickliffe, 2004)	US		0.659	0.842					0.718	
		KR			0.839			0.563		0.622	
10	(Mitchell & Walsh, 2004)	DE	Male	0.76	0.76				0.69	0.71	
			Female	0.77	0.79	0.73	0.69		0.71	0.79	
11	(Tai, 2005)	CN			0.67	0.66		0.68			0.63
12	(Bakewell & Mitchell, 2006)	UK	Male	0.47	0.76	0.73	0. 56	0.36	0.26	0.64	0.09
			Female	0.64	0.76	0.79	0.38	0.39	0.48	0.71	0.43
		UK		0.74	0.75	0.74	0.76	0.48	0.55	0.53	?
13	(Wesley et al., 2006)	US		0.80	0.70	0.45	0.77		0.77	0.69	0.62
14	(Yang & Wu, 2007)	TW		0.83	0.74	0.79			0.74	0.71	0.76
15	(Hanzaee & Aghasibeig, 2008)	IR		0.57	0.79	0.80	0.72	0.62	0.25	0.71	0.42
16	(Yasin, 2009)	TR		0.775	0.821	0.840	0.849	0.720	0.699	0.845	0.684
17	(Mokhlis & Salleh, 2009)	MY			0.77	0.67		0.3		0.61	
18	(Zhou et al., 2010)	CN		0.86	0.81	0.77	0.76	0.69	0.68	0.73	0.70
19	(Kasper et al., 2010)	NL		0.855		0.853	0.812	0.687			0.610
20	(Nayeem, 2012)	AU		0.649	0.671		0.438	0.689		0.738	0.731

Key: CN – China, DE- Germany, GR- Greece, IN -India, IR-Iran, KR- Korea, MY- Malaysia, NL- Netherlands, NZ-New Zealand, TR-Turkey, TW-Taiwan, UK-The United Kingdom, US-United States of America

In addition, researchers have used different Cronbach alpha cut-off points for testing CSI reliability. Some adopted the Sproles and Kendall (1986) cut-off point of 0.4, while others have used 0.7 (Hair, Black, and Babin, 2006), Nunnally and Bernstein (1994), and Robinson, Shaver, and Wrightsman (1991) (Table 2.2a). However, no reasons were given for researchers choosing a particular cut-off point rather than just indicating that it is recommended. This could be why some researchers decided to have their own cut-off points. For example, some chose a 0.5 cut-off point (Bakewell & Mitchell, 2006; Fan & Xio, 1998 ; Hanzaee & Aghasibeig, 2008; Hiu et al., 2001; Mitchell & Bates, 1998; Mokhlis & Salleh, 2009; Tai, 2005; Zhou et al., 2010), while others 0.6 (Bakewell & Mitchell, 2004; Kasper et al., 2010; Kwan et al., 2008; Sinkovics et al., 2010; Solka et al., 2011). Although this research generally aimed for Nunnally's cut-off point, it is important to point out that due to the multidimensional nature of the CSI scale some of the alphas are below Nunnally's cut-off point.

Regarding sample size, Hair, Anderson, Tatham, and Black (1998) suggest a sample of 100 or more. To validate Hair at al's (1998) findings, Reise, Waller, and Comrey (2000) generated a sampling guide indicating the following size quality: 100 being poor, 200 as reasonable, 300 as decent, 500 being very good; and 1000 and above as excellent. Yet, Sapnas and Zeller (2002) found that even with a sample size of 50 it is sufficient to conduct factor analysis. As seen above, the sample size required to complete a factor analysis varies significantly, which is not helpful for researchers (Williams, Brown, & Onsman, 2012). It was further observed that differences in content, language, the number of items, and factors in the data collection instrument have also contributed to the different results regarding CSI reliability (from 17 to 44 per instrument; from 4 to 15 factors), see Table 2.2a below. Another concern is the mismatch between the objectives of some of these studies, and the methodological analysis approaches, causing challenged research results.

Mitchell and Walsh (2004) used exploratory factor analysis and did not consider confirmatory factor analysis to examine the validity of the CSI as an instrument designed to measure CDMS with German male and female consumers as participants. As a result, only six factors were confirmed, despite the lowest cut-off point of 0.4. And in turn nine extra factors were formed. However, in later studies among these fifteen factors, only six studies considered these new factors and two studies did not confirm them (Table 2.2a and Appendix I). What is required is a better CSI confirmation test, with consistency in sample sizes, instruments, analysis, and a reliable/consistent Cronbach alpha cut-off point.

Table 2.2a Sample, instrument, analysis, and Cronbach Alpha

3	KR	(Hafstrom et al., 1992)	310 college students	CSI scale, 44 items, 5-point Likert scale	As Sproles and Kendall (1986)	0.4	7	1
4	NZ	(Durvasula et al., 1993)	210 undergrad students	Sproles and Kendall (1986)	As Sproles and Kendall (1986)	0.4	8	0
5	GR IN NZ US	(Lysonski et al., 1996)	486 undergrad students	CSI scale	As Sproles and Kendall (1986)	0.7	7	1
6	CN	(Fan & Xio, 1998)	271 undergrad students	CSI scale, 7-factor, 40 items, 5-point Likert scale	As Sproles and Kendall (1986)	0.5	1	7
7	UK	(Mitchell & Bates, 1998)	401 undergrad students	CSI scale, 10-factor 38 items, 5-point Likert scale	As Sproles and Kendall (1986)	0.5	8	0
8	CN	(Hiu et al., 2001)	381 adult consumers	CSI scale, 8-factor, 40 items, 5- point Likert scale	Exploratory and confirmatory factor analysis.	0.5	7	1
9	DE	(Walsh, Thurau, et al., 2001)	455 male and female	CSI scale	As Sproles and Kendall (1986)	0.4	6	2
10	UK	(Bakewell & Mitchell, 2004)	244 female undergrads	CSI scale	As Sproles and Kendall (1986)	0.6	3	5
11	DE	(Mitchell & Walsh, 2004)	358 German shoppers	CSI scale, 4 common factors, 22 items, 5 Male factors of 19 items, 5- Female factors of 17 items	As Sproles and Kendall (1986)	0.4	6	2
12	CN	(Wang et al., 2004)	431 adults in Guangzhou	CSI scale, 7-factor, 18-items, 5- point Likert scale	MANOVA, then canonical discriminant analysis		8	0
13	KR, US	(Wickliffe, 2004)	126 American factory workers and students, 156 Korean factory workers and students	CSI scale	As Sproles and Kendall (1986)	0.7	0	8
14	CN	(Tai, 2005)	148 Hong Kong, 126 Shanghai	CSI scale	As Sproles and Kendall (1986)	0.5	4	4
15	UK	(Bakewell & Mitchell, 2006)	480 undergraduate students aged 18-22 years	CSI scale, 38-items, 8-factors, new 4-male factors, 3-female factors, 5- point Likert scale	Principal component analysis with an orthogonal rotation	0.5	8	0
16	US	(Wesley et al., 2006)	527 adult consumers	CSI scale, 8-factor, 39-items, 5- point Likert scale	Exploratory Data Analysis (EDA)	0.4	8	0
17	TW	(Yang & Wu, 2007)	472; 240 females, 232 males. about 20–30 years old, with college education	40-item CSI, 5 five-point scale	EFA, principal components analysis with varimax rotation and eigenvalue	0.7	6	2
18	IR	(Hanzaee & Aghasibeig, 2008)	354 female and 338 male undergraduate students	CSI scale, 40-items	Principal component analysis with varimax (orthogonal) rotation. Kaiser– Mayer–Oklin (KMO) used to measure sampling adequacy Factor analysis.	0.5	7	1
19	CN	(Kwan et al., 2008)	264 undergrads in Beijing, Shanghai, Guangzhou, Hong Kong and Taipei	CSI scale, 8-factor, 40 items, 5- point Likert scale	Confirmatory and exploratory factor analyses, were employed.	0.6	6	2
20	MY	(Mokhlis & Salleh, 2009)	419 undergrad students	CSI scale, 8-factor, 40, 5-point Likert scale	Factor analysis with principal component	0.5	8	0
21	NL	(Kasper et al., 2010)	203 Dutch mobile phone users	CSI scale, 8-factor, 41 items. 5- point Likert scale	Cluster analysis using Mancova	0.6	5	3
22	AT	(Sinkovics et al., 2010)	225 general public Austrian consumers	CSI, scale 6-factor, 54-items, 5- point Likert scale	Descriptive analyses, Factor analysis	0.6	8	0
23	CN	(Zhou et al., 2010)	coastal 195 students (114 females and 81 males), inland, 245 students (152 females and 90 males)	7-point Likert scale, 39 items from Sproles and Kendall	correlation analysis, 39 items, confirmatory factor analysis	0.5	8	0
24	PL	(Solka et al., 2011)	188 Polish students and 208 Americans	5-factor model of 41 items, 5- point Likert scale	principal component factor analysis"	0.6	2	6
Key: CN – China, DE- Germany, GR- Greece, IN -India, IR-Iran, KR- Korea, MY- Malaysia, NZ-Tanzania, TR-Turkey, TW-Taiwan, UK-United Kingdom, US-United States of America								

In addition, despite its popularity, few studies confirmed all eight CSI factors, such as in the US, Tanzania, China, and Taiwan (Chen et al., 2012; Durvasula et al., 1993 ; Sproles & Kendall, 1986; Zhou et al., 2010), while the majority of studies supported between six and seven factors (Kwan et al., 2008; Sinkovics et al., 2010), and only one study rejected all eight CSI factors (Wickliffe, 2004). Those studies which confirmed all

of the eight factors came from different countries and cultures such as China, the US, and Taiwan. This could mean that culture may have a limited effect on consumer decision-making styles. Also it has been observed that within the same country and culture, the CSI has given different results, as exhibited with some studies done in Taiwan and the US (Chen et al., 2012; Cowart & Goldsmith, 2007; Yang & Wu, 2007). These mixed findings concerning the CSI may be a sign that there is a set of mixed factors that influence the diverse results regarding CDMS applicability and generalisability, or CSI sensitivity to sampling and methodological approaches.

Most studies were carried out on students, for the reason that it is good to test the instrument using comparable or matched samples to demonstrate whether the CSI can be applied across nations on a similar demographic category and give similar results (Lysonski et al., 1996). However, the CSI model should not only be limited to students. Thus, it is necessary that the CSI be tested on non-student samples if the instrument is to be applied to the general population. Moreover, in order to achieve generalisability, more refinement and development of the CSI scale is needed, rather than developing a new scale altogether (Mitchell & Bates, 1998). This is because it is vital to establish the applicability of the CSI to different contexts and societies for it to achieve international validity and reliability (Yasin, 2009), as there is no such instrument yet in place (Yasin, 2009). That is why further research on application and validation of the CSI scale across cultures and populations is encouraged (Sproles & Kendall, 1986).

Studies discussed so far have explored the dynamics of validity, applicability, reliability, and generalisability of the CSI as a consumer decision-making styles instrument. The discussions above have shown that CSI validity, reliability, applicability, and generalisability is dynamic and complex. Despite the non-research factors affecting the CSI, some research factors, such as the Cronbach alpha cut-off point differences (i.e. 0.4, or 0.5, or 0.6, or 0.7), have resulted in different outcomes, as discussed above. This has an effect on validity and reliability of the CSI scale. Therefore, researchers need to develop one standard Cronbach alpha for testing a scale.

In the concluding remarks of some studies, researchers have commented on the CSI's validity, reliability, applicability, and generalisability. These remarks are summarised in Table 2.2b below:

Table 2.2b: Researchers concluding remarks on the CSI's validity, reliability, applicability, and generalisability

RELIABILITY TABLE	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Over-choice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Brand Loyal	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking
1	US	(Sproles & Kendall, 1986)	*	*	*	*	*	*	*	*														
2	US	(Sproles & Sproles, 1990)	*	*	*	*	*	*	*	*														
3	KR US	(Hafstrom et al., 1992)	*	*	x	*	*	*	*	*						*								
4	NZ	(Durvasula et al., 1993)	*	*	*	*	*	*	*	*														
5	GR IN NZ US	(Lysonski et al., 1996)	*	*	*	*	x	*	*	*														
6	CN	(Fan & Xio, 1998)	x	*	x	x	x	x	x	x	*				*		*			*				
7	UK	(Mitchell & Bates, 1998)	*	*	*	*	*	*	*	*						*			*					
8	CN	(Hiu et al., 2001)	*	*	*	*	*	x	*	*														
9	DE	(Walsh, Thurau, et al., 2001)	*	*	*	*	x	*	*	x														
10	UK	(Bakewell & Mitchell, 2004)	*	*	*	*	*	*	*	*						*			*					
11	DE	(Mitchell & Walsh, 2004)	*	*	*	*	x	*	*	x	*	*	*	*		*					*	*	*	*
		(Wickliffe, 2004)	x	x	x	x	x	x	x	x														
12	UK	(Bakewell & Mitchell, 2006)	*	*	*	*	*	*	*	*						*			x					
13	US	(Wesley et al., 2006)	*	*	*	*	*	*	*	*														
14	TW	(Yang & Wu, 2007)	*	*	*	x	x	*	*	*														
15	IR	(Hanzaee & Aghasibeig, 2008)	*	*	*	*	*	*	*	*		*				*								
16	CN	(Kwan et al., 2008)	*	*	x	*	*	*	*	*														
17	MY	(Mokhlis & Salleh, 2009)	*	*	*	*	*	*	*	×					x	*		x			x			
18	NL	(Kasper et al., 2010)	*	*	x	*	*	x	x	*		*		*										
19	AT	(Sinkovics et al., 2010)	*	*	*	*	*		*															
20	CN	(Zhou et al., 2010)	*	*	*	*	*	*	*	*														
21	PL US	(Solka et al., 2011)	x	*	x	x	*	x	x	x	*		*				*							

No.	Country	Reference	Study Objective	Sample	Instrument	Analysis	Results-Conclusion
1	US	Sproles, G.B., & Kendall. 1986. A methodology for profiling consumers' decision-making styles. Journal of Consumer Affairs 20 (2). 267-279	method for measuring characteristics of CDMS	501 US high school students	8-factor method of 48 items, 5-point Likert scale	The principal component method with varimax rotation of factors, communality estimates of 1.0. A constrained 8-factor solution was extracted to test the 8 characteristics model	CSI is useful for consumer-interest professionals. Further application and validation of the CSI across the population is encouraged. 8 factors of 40 items
2	US	E.K. Sproles and Sproles (1990)	To explore the relationships between individuals' learning styles and their CDMS	501 US high school students	Sproles and Kendall (1986)	Sproles and Kendall (1986)	Found statistically significant relationships between learning and decision-making characteristics
3	KR	Hafstrom, J.L., Chae, J.S., & Chung, Y.S. (1992). Consumer decision-making styles: Comparison between the United States and Korean young consumers. The Journal of Consumer Affairs, 26(1), 114-122.	To identify CDMS of young Koreans and find if they are similar to those of US consumer	310 college students in Korea	Sproles and Kendall (1986). 44 items, 5-point Likert scale	Factor analysis, principal component method varimax rotation, 8-factor solution (for comparison)	The observed generality of several CDMS of young US. and Korean consumers. CSI has elements of construct validity and usage potential across nations
4	NZ	Durvasula, Srinivas; Lysonski, Steven; Andrews, J. Craig (1993). Cross-cultural generalizability of a scale for profiling consumers' decision-making styles. Journal of Consumer affairs, 27(1). 55-65	To test the generalisability of CSI in Tanzania	210 undergrad students at a large university in Tanzania	Sproles and Kendall (1986).	Sproles and Kendall (1986).	Similarities outweigh the differences hence provided general support for CSI

5	GR, IN, NZ US	Lysonski, S., Durvasula, S., & Zotos, Y. (1996). Consumer decision-making styles: Multi-country investigation. European Journal of Marketing, 30(12), 10-21.	To investigate the Consumers decision-making profiles of four diverse countries	486 Undergrad. students from GR, IN, NZ, US	Sproles and Kendall (1986) 40 items, 5-point scale same as Sproles & Kendall	Same method as Sproles and Kendall's (1986)	Confirmed 7 factors out of 8 with 34 items. CSI requires additional psychometric work before it can be applied to other countries, mainly the less developed.
6	CN	Fan, J. X. & Xio, J. J. (1998). Consumer decision-making styles of young-adult Chinese. Journal of Consumer Affairs, 32(2), 275-294.	To examine dimensions and profiles of Chinese CDMS compared to American and Korean	271 undergrad. students in China	Sproles and Kendall (1986). 7-factor model of 40 items 5-point Likert scale	Same method as Sproles and Kendall's (1986)	The consumer decision-making styles are similar in the three countries, but the maturity of the consumer market may impact the differences in CDMS. 5 factors of 31 items
7	UK	Mitchell, V.W. & Bates, L. (1998). UK consumer decision-making styles. Journal of Marketing Management, 14(1-3), 199-225.	To examine the generalisabity of Sproles and Kendall's (1986) CSI in an extension work in the UK	401 undergrad students in the UK	Sproles and Kendall(1986) 10-factor model 38 items 5-point Likert scale	Same method as Sproles & Kendall's (1986)	Most of the original US traits were found in the UK, the addition of new store-loyalty and time-energy saving traits. The CSI is sensitive enough and able to assess cultural differences and produce sensible results.
8	CN	Hiu, A. S. Y., Siu, N. Y. M., Wang, C. C. L. and Chang, L. M. K. (2001), "An Investigation of Decision-Making Styles of Consumers in China," Journal of Consumer Affairs, Vol. 35, No. 2, pp. 326-345.	To investigate Chinese CDMS	381 adult consumers in China	Sproles and Kendall (1986). Double analysis method, 8-factor model of 40 items 5- point Likert scale	Exploratory and confirmatory factor analysis. Cluster analysis for determining market segment in the future	Five CDMS are valid and reliable in Chinese culture (perfectionist, novelty-fashion conscious, recreational, price conscious, and confused by over-choice. 7 factors and 5 market segments derived
9	DE	Walsh, G., Wayne-Mitchell, V., & Hennig-Thurau, T. (2001). German consumer decision-making styles. *The Journal of Consumer Affairs*, *35*(1), 73-8	To test the generalizability of CDMS in different countries and with non-student German shoppers	455 German male and female shoppers (eighteen and older)	Sproles and Kendall (1986)	Sproles and Kendall (1986)	supported six factors only
10	UK	Bakewell, C., & Mitchell, V. (2003). Generation Y female consumer decision-making styles. *International Journal of Retail & Distribution Management*, *31* (2), 95-106.	Examine the decision making of adult female generation Y consumers	244 Female undergraduate students in the UK	Sproles and Kendall (1986)	Sproles and Kendall (1986)	Shoppers change as a function of their generation membership due to macro-environmental influences and 5 decision-making groups emerged
11	DE	Mitchell & Walsh. 2004. Gender differences in German consumer decision-making styles. Journal of consumer behaviour. 3 (4). 331-346	To examine the validity of an instrument designed to measure CDMS of German male and female consumers	358 German shoppers	Sproles and Kendall (1986) 4 common factors model of 22 items, 5 Male factors of 19 items, 5- Female factors of 17 items	Exploratory principal component method with varimax rotation of factors	Five new male factors (satisfying, enjoyment-variety seeking, fashion-sale seeking, time restricted and economy seeking). CSI has constructed validity for females, but not males.
12	CN	Cheng-Lu Wang, Noel Y.M. Siu, Alice S.Y. Hui, (2004),"Consumer decision-making styles on domestic and imported brand clothing," European Journal of Marketing. 38 (1). 239 - 252	To investigate the relationship between Chinese CSI and their choice between domestic and imported clothing brands	431 adult Chinese in Guangzhou	Sproles and Kendall (1986), 7-factor, 18-items, 5- point Likert scale	Began with the multivariate analysis of variance (MANOVA), followed by canonical discriminant analysis	General support for the usefulness of purified CSI in understanding Chinese CDMS in relationship to consumers' preference for domestic or imported clothing brands.
13	KR, US	Wickliffe, V.P. (2004). Refinement and reassessment of the consumer decision-making style instrument. Journal of Retailing and Consumer Services, 11, 9-17.	To examine the psychometric properties of a popular the instrument used to	126 American factory workers and students	Sproles and Kendall (1986)	Sproles and Kendall (1986)	CSI not a reliable or valid measure of CDMS for both Korea and the US. The confused impulsive consumer was the new

			measure CDMS and its findings were compared to earlier studies	156 Korean factory workers and students			construct and in contrast with previous studies.
14	CN	Tai, S. (2005). Shopping styles of working Chinese female. *Journal of Retailing and* Consumer Services, 12, 191-203.	To create a typology of the shopping style dimensions of working female consumers aged 18- 44 in Shanghai and Hong Kong	148 Hong Kong 126 Shanghai	Sproles and Kendall (1986)	Sproles and Kendall (1986)	Identified 10 CDMS relevant to Chinese working females and four new non-CSI dimensions (personal style consciousness, environment and health consciousness, reliance on mass media, and convenience and time consciousness)
15	UK	Bakewell, C., & Mitchell, V.-W. (2006). Male versus female consumer decision-making styles. Journal of Business Research, 59(12), 1297-1300.	To investigate male and female CDMS	a non-probability sample of 245 male and 245 female undergraduate students aged 18-22 years (usable items 480)	Sproles and Kendall (1986), 38-items, 8-common factors, 4-male factors, 3-female factors 5- point Likert scale	Principal component analysis with an orthogonal rotation	All 8 US original CSI were confirmed and largely-female, decision-making traits.
16	US	Wesley, S., LeHew, M., & Woodside, A. G. (2006). Consumer decision-making styles and mall shopping behavior: Building theory using exploratory data analysis and the comparative method. Journal of Business Research, 59(5), 535-548.	To assess the relationship between CDMS and shopping malls behaviour	527 adult consumers aged 18 to 85 plus	Sproles and Kendall (1986), 8-factor, 39-items, 5- point Likert scale	adopted Exploratory Data Analysis (EDA)	Empirical research supported CDMS existence among adult shoppers in different mall contexts. Gender is a prime antecedent associated CDMS. CDMS influence on mall shopping indirect Perfectionist consumers are ranked high in planned mall expenditures
17	AT	Sinkovics, R. R., 'Mink' Leelapanyalert, K., & Yamin, M. (2010). A comparative examination of consumer decision styles in Austria. Journal of Marketing Management, 26(11-12), 1021-1036.	To examine and compare CDMS in Austria and previous CSI studies in other countries (Replica for generalisation) To test the CSI's explanatory power in a sample drawn from general public	225 Austrian consumers, from the general public	Sproles and Kendall (1986), 6-factor, 54-items, 5- point Likert scale	Descriptive analyses, Factor analysis (principal components, varimax rotation).	Results are highly congruent with findings from earlier studies using student samples.
18	CN	Zhou, J. X., Arnold, M. J., Pereira, A., & Yu, J. (2010). Chinese consumer decision-making styles: A comparison between the coastal and inland regions. Journal of Business Research, 63(1), 45-51.	to develop a better understanding of the variations in CDMS between coastal and inland China	coastal sample of 195 students (114 females and 81 males). inland sample, 245 students (152 females and 90 males)	7-point Likert scale (1=strongly disagree to 7 = strongly agree). 39 items from Sproles and Kendall (1986)	"An item-total correlation analysis of the 39 items revealed that 4 Correlation and a multi-group confirmatory factor analysis to assess the measurement invariance between the two groups	consumers in the two regions are similar in utilitarian shopping styles and differ in hedonic shopping styles. China is heterogeneous rather than homogeneous market

19	Poland, US	Solka, A., Jackson, V. P., & Lee, M.-Y. (2011). The influence of gender and culture on Generation Y consumer decision making styles. The International Review of Retail, Distribution and Consumer Research, 21(4), 391-409.	To examine gender and culture as predictors of CDMS.	188 Polish students and 208 Americans	Sproles and Kendall (1986), 5-factor model of 41 items, 5- point Likert scale	principal component factor analysis"	Found 4 out of 5 shopping characteristics to be different between Poland and the US (enjoyment, shopping aversion, price consciousness and quality consciousness) and 3 out 5 differ between genders (enjoyment, shopping aversion and brand consciousness).

Throughout the discussion, it has been observed that the CSI is not yet universally developed. This calls for a wider investigation into the matter. Therefore, this study will investigate the currency, validity, reliability, applicability, and generalisability of the CSI scale in respect of today's consumers.

Accordingly, the following section discusses the general picture of CSI profiles, features, and dimensions as a foundation upon which to develop the green consumption dimension about consumers' decision-making styles.

2.4 CSI profiles and dimensions

This section will discuss the features, profiles, and dimensions of the CSI's eight factors in different contexts. These factors are Perfectionism; Brand consciousness; Novelty-fashion consciousness; Recreational/Hedonistic shopping consciousness; Price & value-for-money consciousness; Impulsiveness; Confusion from over-choice; and Brand Loyalty (Sproles & Kendall, 1986).

2.4.1 Perfectionism

Sproles (1985), Sproles and Kendall (1986), and Wesley et al. (2006) define perfectionism in the CSI as a situation whereby a consumer searches for the best quality in products; shops more carefully, more systematically, or by comparison; and is not satisfied with the "good enough" product. Perfectionists are likely to be highly satisfied with their purchases because they tend to plan their expenses (Wesley et al., 2006). Perfectionists are neither brand nor price loyal (Kasper et al., 2010; Wesley et al., 2006); they are only loyal to quality. Perfectionist consumers identify and look for specific qualities in a product based on the information search they conducted before deciding to buy (Wesley et al., 2006). Further, perfectionists do not buy before they have comprehensively evaluated the product they want and are satisfied with it (Kasper et al., 2010). Sproles (1985); Sproles & Kendall (1986) demonstrated that perfectionist consumers also have a tendency to intensify their shopping processes and time in order to obtain the maximum utility.

Mitchell and Walsh (2004); Wiedmann, Walsh, and Mitchell (2001); and Yasin (2009) report that female consumers tended to be more perfectionist in practice than males. However, this research did not explain why women are like that. Further, perfectionist consumers exhibit utilitarian buying characteristics (Kim, Yang, & Lee, 2009; Zhou et al., 2010), which makes them more functional than emotional buyers. Hence, marketers can take advantage of this perfectionist characteristic by focusing on quality, functionality,

effectiveness, and practicality as their unique selling points towards these types of customers as well as use market experts to communicate a product of high quality, prestige, and self-esteem (Wiedmann et al., 2001). However, for marketers to take advantage of this situation, identifying and comprehending the theoretical explanation behind perfectionism as a consumer decision-making style is necessary as researchers and marketers would then better understand perfectionism in the CSI instrument.

Durvasula et al. (1993) and Wickliffe (2004) have indicated that consumer perfectionism is one of the most stable CSI characteristics, and this has been confirmed in many countries such as Tanzania, Australia, the US, Korea, Greece, India, China, the UK, continental Europe, and in many other countries at different times (Canabal, 2002b; Durvasula et al., 1993 ; Hafstrom et al., 1992; Hiu et al., 2001; Lysonski et al., 1996 ; Mishra, 2010; Sinkovics et al., 2010; Sproles , 1985; Sproles & Kendall, 1986). However, investigations in countries like China, Korea, and Poland did not confirm perfectionism factor (Cowart & Goldsmith, 2007; Fan & Xio, 1998 ; Solka et al., 2011; Wickliffe, 2004).

Table 2.3 Studies that do not support Perfectionism

No.	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Over choice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	CN	(Fan & Xio, 1998)	x	✓	x	x	x	x	x	x	✓	●	●	●	✓	●	✓	●	●	✓	●	●	●	●	●	●	●	●
2	US	(Cowart & Goldsmith, 2007)	x	✓	✓	✓	x	✓	x	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3	KR US	(Wickliffe, 2004)	x	x	x	x	x	x	x	x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4	PL US	(Solka et al., 2011)	x	✓	x	x	✓	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●
Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered , CN-China, US- United States of America, KR-Korea, PL-Poland																												

It can also be observed that some countries have confirmed perfectionism in one part, while other parts of the same country rejected perfectionism, as seen in Table 2.3 above. This may mean that people from the same country may have different orientations, impressions, attitudes, and perceptions regarding consumer perfectionism. Researchers and marketers may also be confronted by the question of what can be done to cope with such a situation in these countries. Sometimes these factor rejections may be caused by sampling issues. For example, Wickliffe (2004) exampled a sample of 286 respondents (Table 2.4), below the norm for a multi-country study, which requires a minimum of 400 usable responses on average (Lysonski et al., 1996 ; Solka et al., 2011). Also, this sample included irrelevant respondents (Korean students studying in the US), while the study indicated that the focus was on American students and American factory workers in America, rather than Korean students and Korean workers in Korea.

Table 2.4 The Wickliffe study summary

Country	Reference	Study Objective	Sample	Instrument	Analysis	Results-Conclusion
KR, US	(Wickliffe, 2004)	To examine the psychometric properties of a popular instrument used to measure CDMS and its findings were compared to earlier studies	126 American factory workers and students 156 Korean factory workers and students	Sproles and Kendall (1986) CSI	Sproles and Kendall (1986) Factor Analysis	CSI not a reliable or valid measure of CDMS for both Korea and the US. The confused impulsive consumer was the new construct and in contrast with previous studies.
Key: KR- Korea, US-United States of America						

Kasper et al., (2010); and Sproles (1985) also indicated that perfectionists are less confused by over-choice and information overload because if a product does not meet their criteria it is dropped off the list. As a result, the perfectionist approach to consumer decision-making has been viewed as an effective way to shield the consumer against confusion and information overload, and of downsizing the set of considerations (Kasper et al., 2010; Mitchell, Walsh, & Yamin, 2004; Wiedmann et al., 2001). For perfectionists are regarded as knowledgeable consumers (Kasper et al., 2010; Sproles & Sproles, 1990), with a probability that they can make an informed buying decision. The more knowledgeable the consumer is, the less their confusion, and the higher the probability of uncovering buying risks.

Therefore, marketers should give quality a higher priority when dealing with perfectionists. Marketers should also be aware that this type of customer can handle information overload, and confusion, and can challenge marketers because they are knowledgeable and follow a serious systematic approach to learning (Sproles & Sproles, 1990). On the other hand, there is a concern that the information consumers search for, to help them make decisions, can be biased, manipulated, inadequate, concealed (patented information) or miscomprehended by the consumer, and hence imperfect decisions with undesirable outcomes. This can cast a shadow on the concept of a perfectionist consumer decision-making style.

High-income earners tend to exhibit perfectionism more than their counterparts (Wesley et al., 2006) because a high income empowers them to demand and afford quality. However, Wang et al., 2004 have shown that people of lower incomes may also demand high quality, not just the rich. In addition, Baoku, Cuixia, and Weimin (2010) concluded that even in poor rural areas there are perfectionists. This could be a sign that perfectionism is not only for the rich and affluent. Also, the original CSI was tested with students, who in an economic sense are dependents on their parents or guardians, yet they were able to show perfectionism. Therefore, it can be inferred that economic status has limited influence on perfectionism.

When it comes to social class in relation to perfectionism, research shows that the higher the social class the higher the perfectionism (Shim, 1996). Bakewell & Mitchell, 2006 concluded that perfectionism is one of the ways of showing superiority where perfectionists classed as high-end consumers tend to spend more than average (Wesley et al., 2006).

Perfectionist consumers seem to be more responsible shoppers, and more rational than emotional (Kasper et al., 2010) (even though it is not known yet about their green consumption behaviour). This could be due to the fact that consumer education has a direct influence on them (Shim, 1996), which makes them highly knowledgeable and responsible shoppers (Sproles & Sproles, 1990; Sproles , 1985; Sproles & Kendall, 1986; Wang et al., 2004). However, it is not only consumer education that influences perfectionism; some researchers have indicated that collectivist societies are likely to be perfectionists (Doran, 2002) for any of the following three reasons: to show off; being frugal with their finances; or peer influence (Shim, 1996). Bakewell and Mitchell (2006) has shown that most men are perfectionists in order to show their superiority. In addition, Baoku et al. (2010) reported that even uneducated poor peasants can be perfectionists, which means that perfectionism is not influenced by education only, but by a combination of different factors such as the market and macro environments (Kwan et al., 2008). This is to say, the perfectionist consumer may seem more responsible and rational due to their high knowledge, but one should not ignore other factors that influence the perfectionism decision-making style, as discussed above.

2.4.2 Brand consciousness

Consumers who prominently exhibit brand consciousness are oriented toward buying expensive, well-known brands (Shim, 1996). They also believe that higher price reflects higher quality, and have a positive attitude towards pricey high-end stores with bestselling advertised brands (Sproles & Kendall, 1986). In addition, brand conscious–oriented consumers use price and brand as a sign of quality, prestige, and superiority (Bakewell & Mitchell, 2006; Fan & Xio, 1998 ; Wang et al., 2004), and they may be the attributes to higher prices (Forsythe, 1991). Some brand-conscious consumers use brand-conscious orientation to convey fashion, image, and meaning, particularly those from individualistic cultures (Bao, Zhou, & Su, 2003; G.-S. Kim, Lee, & Park, 2010; Park & Rabolt, 2009).

Most brand-conscious consumers use brand and price as symbols of status and prestige and are common in areas where there is a high-power distance culture (Hofstede & Hofstede, 2001). It seems that these consumers are also price conscious; however, they see price in a positive, rather than a negative way. It is unknown why they behave in such a manner. Brand-conscious people do not respond well to consumer education and learning and they lean much towards hedonism (Shim, 1996; Sproles & Kendall, 1987; Zhou et al., 2010). This may pose a challenge to consumer educators, counsellors, advisors, and guardians.There seems to be some crossover between brand consciousness and perfectionism (Wesley et al., 2006; Wickliffe, 2004), which can cause some confusion when it comes to precisely differentiating these two dimensions of the CSI. For example, both brand-conscious and perfectionist consumers are highly educated (Wang et al., 2004) and are likely to downsize the set of considerations (Kasper et al., 2010); have high income and plan their expenditures (Wesley et al., 2006); have high sensory innovativeness tendencies, and are not comparison shoppers (Zhou et al., 2010). However, the question remains: how do they choose a brand or service without comparing different alternatives? In this case, it may be true for the price but not for other factors, as brand-conscious consumers are associated with price insensitivity (Warrington & Shim, 2000).

Demographically, urban consumers are more brand conscious than those in rural areas (Zhou et al., 2010). This could be due to the higher presence of media channels used by brands in urban, rather than rural, areas. Also, females seem to be more brand conscious than males (Mitchell & Walsh, 2004; Yasin, 2009). In contrast, when it comes to online buying, male consumers have stronger brand consciousness than women (Sinkovics et al., 2010). However, Bakewell and Mitchell (2006) show that men are as brand conscious as women at equal levels. Yet, Shim (1996) reported mixed results on brand consciousness between boys and girls.

Furthermore, (Kasper et al., 2010; Wang et al., 2004 ; Weiss, 2003) reported that youths are more brand conscious than consumers of other ages. On the other hand, (Shim & Gehrt, 1996; Solka et al., 2011) found contradictory results indicating that most youths have a lower level of brand consciousness than others. From the above observations, it can be inferred that demographically things have been changing from mixed results to female brand consciousness, then to males, and later to youth dominance in brand consciousness. Therefore, it can be noted that, demographically there is a trend showing the youth leading on brand consciousness. Hence, marketers can take advantage of this trend to enhance their marketing success within the youth market segment.

Other studies have shown that brand consciousness is at a different state of development in different cultures (Lysonski et al., 1996) because culture affects brand consciousness (Leo, Bennett, & Härtel, 2005a). For example, collective culture societies are more brand conscious than individualistic ones (Watson & Wright, 2000). This is why brand consciousness is growing in popularity amongst collective societies, such as with Chinese consumers, as Wang et al. (2004) indicated.

The growing popularity of brand consciousness among these collective societies makes it one of the most applicable and stable CSI factors (Durvasula, Lysonski, & Andrews, 1993; Hafstrom et al., 1992; Hiu et al., 2001; Leo et al., 2005a; Lysonski et al., 1996 ; Mitchell & Bates, 1998; Mitchell & Walsh, 2004; Sproles & Kendall, 1986; Walsh, Thurau, et al., 2001; Zhou et al., 2010). However, as an exception, research conducted in Malaysia (Mokhlis & Salleh, 2009a, 2009b) does not confirm the brand consciousness factor.

2.4.3 Novelty-fashion consciousness

Consumers who are fashion and novelty conscious are interested and excited in the pleasure of seeking out new things; keeping up-to-date with latest products and styles; and variety seeking (Khare, 2012; Sproles & Kendall, 1986; Wesley et al., 2006). This calls for marketers to stress variety and novelty when marketing to this type of consumer (Michaelidou, 2012). Also, novelty-conscious consumers are more cognitive and visually oriented (Zhou et al., 2010), therefore the marketer may use more visuals when marketing to this kind of customer.

However, some research findings give the impression that novelty-fashion-conscious and recreational, hedonistic consumers are indistinguishable (Lysonski et al., 1996). And their argument is that novelty-fashion consumers are more hedonistically inclined, the same as recreational consumers (Babin & Harris, 2009; Zhou et al., 2010). Also, there are features that are found in both groups, such as: being easy going, light-hearted, dreamers, impulsive, and loving pleasure (Zhou et al., 2010). Both groups treat shopping as a

recreational activity (Shim & Gehrt, 1996) and are less concerned with the implications of their purchase of new and novel products (whether it is negative or positive) (Sproles & Sproles, 1990); and they care less about prices (Kasper et al., 2010).

Novelty- and fashion-conscious consumers tend to be passive learners (Sproles & Sproles, 1990), and prone to information overload and ambiguity (Mitchell et al., 2004). Hence, communication with them should be clear, precise, and concise. Furthermore, novelty-conscious consumers place high importance on the value-expressive type of consumption (Kim et al., 2009), so that they can make a statement through their purchases. Therefore, to be successful with these consumers, marketers need to develop brands that are expressive enough to make a statement.

Adding to this, males, in general, are less novelty and fashion conscious compared to women (Bakewell & Mitchell, 2004; Mitchell & Walsh, 2004; Yasin, 2009). Nonetheless, they exhibit features of novelty consciousness with electronic, high-tech products, and sports equipment (Kwan et al., 2008). In addition, while older people are less fashion-conscious (Wang et al., 2004), young consumers between the ages of 17 and 23 years are more novelty conscious than other age groups (Weiss, 2003).

Due to their nature of trying new things (Kasper et al., 2010), novelty seekers tend to be brand switchers (Michaelidou, 2012); risk takers with a high level of risk tolerance; and innovative, compared to other consumer groups (Fiore, Lee, & Kunz, 2004; Michaelidou, 2012). In this case, marketers should put in place a mechanism that will reduce brand switching when dealing with novelty- and fashion-conscious consumers. This can be done by treating them as brand pioneers and fashion trendsetters.

Also by being oriented to trying new things, novelty-conscious consumers are highly associated with product innovators and adopters (Kasper et al., 2010; Wang et al., 2004). This is because they are naturally committed to finding better and new options (Kasper et al., 2010). Hence, to be successful with this market segment, marketers may need to develop new and better brands constantly, and ensure that they are the trendsetters in their product and market category.

Lysonski et al. (1996) have pointed out that novelty consciousness is one of the stable factors across nations, despite the instrument needing to be modified to match factors for different countries. Conversely, Mitchell and Bates (1998) state that novelty-fashion-conscious consumers may not be confirmed in developing countries, Tanzania being one of them. However, these researchers have not yet explained why this factor may not be confirmed in less-developed countries. On the other hand, research by Hafstrom et al. (1992) observed an absence of novelty and fashion consciousness in South Korea, while it is a developed and not a developing country.

Therefore, it can be concluded that novelty consciousness may not be confirmed with developed or developing consumers. Hence, the level of country development may have a limited role in the confirmation of the novelty-consciousness dimension. Also, the level of social or economic development within societies may not influence the confirmation of novelty consciousness; for example, Shim and Gehrt (1996) report that native Americans are more novelty-oriented than other American ethnicities, while it is understood that the majority of native Americans are less developed economically compared to other American ethnicities (e.g. Caucasians). Thus, it may be inferred that individual economic development or status may

play a minor role in influencing novelty consciousness. Despite the indication by Lysonski et al. (1996) that novelty consciousness is one of the confirmed stable factors, several studies report the factor as being unconfirmed in different countries, cultures, and levels of development, as per Table 2.5 below.

Table 2.5 Studies that do not support Novelty-Fashion consciousness

No	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic	Price-Value Conscious	Impulsiveness	Confused by Over-choice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	KR US	(Hafstrom et al., 1992)	✓	✓	x	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●	●
2	CN	(Fan & Xio, 1998)	x	✓	x	x	x	x	x	x	✓	●	●	●	✓	●	✓	●	●	✓	●	●	●	●	●	●	●	●
3	CN	(Kwan et al., 2008)	✓	✓	x	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4	MY	(Mokhlis & Salleh, 2009)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	x	✓	●	●	●	●	x	●	●	●	●	●	●	●
5	PL US	(Solka et al., 2011)	x	✓	x	x	✓	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●
6	AU	(Nayeem, 2012)	✓	✓	x	✓	x	x	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered.AU- Australia, CN – China, KR- Korea, MY- Malaysia, PL-Poland, US-United States of America																												

2.4.4 Recreational, hedonistic-shopping consciousness

Recreational and hedonistic consumers are those buyers who feel shopping provides pleasure, fun, and is recreational and entertaining (Bakewell & Mitchell, 2006; Sproles & Kendall, 1986). Because of the feeling of pleasure and enjoyment when shopping, recreational customers have the highest frequency of visiting shopping outlets of any consumers in the CSI scale (Wesley et al., 2006). In addition, recreational consumers are browsers, ambience seekers, hedonistic, more impulsive, and self-expressive-oriented (Sinha & Uniyal, 2005; Zhou et al., 2010). This calls for researchers and marketers to research and develop products with fashionable and relaxing brand personalities (Cowart, Fox, & Wilson, 2008). Also, due to the impulsive nature of recreational consumers, most of them have a tendency to buy unintentionally (Cowart et al., 2008). Hence, emotional marketing seems suitable for such a consumer market segment.

Recreational consumers have a tendency towards developing hedonistic value and enjoyment benefits from shopping with an emphasis on quality (Babin, Darden, & Griffin, 1994; Mitchell & Bates, 1998). Bakewell and Mitchell (2004) that recreational buyers comprise 10% of all new product innovators. Here the question is whether the consumer segment of this size can be worth more research, as innovators comprise only 2.5% of the whole targeted market when it comes to new product adoption (Rogers, 2010). Therefore, 10% of 2.5% can be inadequate, except for global products which are also hard to find. Likewise, young people

tend to be more dominant recreational shoppers than others (Shim & Gehrt, 1996), while older people are less hedonistic (Wang et al., 2004). Yet it remains unclear whether this trend is the same in less-developed countries (LDCs) like Tanzania.

Nevertheless, some contradictions emerged about the learning behaviour of recreational-conscious consumers. For instance, some studies show that recreational consumers tend to seek more information and do more extensive comparison shopping than consumers in other groups (Levy, Weitz, & Beitelspacher, 2009). This could mean they are high-learning consumers. Yet other research show that indulging and impulsive consumers tend to be low on learning (Sproles & Sproles, 1990; Sinha & Uniyal, 2005; and Lysonski et al. 1996); hence there is a contradiction.

Another contradiction emerged when Roy and Thill (2004) pointed out that females are more likely to be identified as recreational shoppers while Wesley et al. (2006) and Bakewell and Mitchell (2006) report that both males and females lean equally towards recreational shopping. This is an indication that the orientation of a consumer's decision-making style changes as time goes by. This situation makes it necessary to have constant research on these CDMS to uncover more insights.

Furthermore, over time, research has revealed that consumers in developed countries are more recreational and hedonistic than those from developing countries (Zhou et al., 2010). Nothing is known to confirm the assertion regarding Tanzania. However, Table 2.6 below paints the opposite picture. It has also been discovered that collectivist societies are inclined more towards recreational shopping than individualistic societies (Doran, 2002). Another research revelation is that recreational consciousness can be used to build a brand (Zhou et al., 2010) by using recreational and hedonistic brand characteristics. Therefore, marketers can use recreational, hedonistic shopping consciousness to build their brand. Finally, Roy and Thill (2004) indicated that the location of a shopping place determined the type, frequency, and level of recreational shoppers; nevertheless, their study did not explain how.

Regarding confirmatory studies on recreational, hedonistic shopping consciousness, it has been observed that it is one of the CSI factors that are less confirmed by different country studies compared with other factors. In the early 1990s, Hafstrom et al. (1992) showed that recreational consciousness overlaps with the time-energy conserving factor, hence causing confusion that could have hindered its confirmation as a CSI factor. However, a year later, (Durvasula et al., 1993) showed that this factor was stable in the USA and Tanzania. But most of the later research supported the results of Hafstrom et al.'s (1992) study in showing that recreational, hedonistic shopping consciousness is not a stable factor. These studies include Mitchell and Bates (1998), who found that the recreational consciousness factor has low internal consistency (poor Cronbach alpha) and suggested the items in this factor be re-designed to improve its trait measurement. Additionally, Bauer et al. (2006) suggested that recreational and hedonistic consciousness be excluded from the CSI due to its instability.

Indeed, these studies shed a light on some gaps in this CSI factor, which is crucial for advancing research in CDMS. Nonetheless, these critics neither came up with preferred re-designed items for the factor, nor a replacement for the factor in the CSI inventory respectively. The Table 2.6 summarises the studies and countries where a recreational factor was not confirmed and leaves us with the question of whether the

same results will exhibit themselves with this study in relation to this factor. Despite hedonism being one of the dominant features in five of the eight CSI factors, as indicated by the literature, it is the second most rejected factor after the price-consciousness factor (see Table 2.6).

Table 2.6 Studies that do not support the recreational, hedonistic shopping consciousness

No.	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic	Price-Value Conscious	Impulsiveness	Confused by Over-choice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	GR IN NZ US	(Lysonski et al., 1996)	✓	✓	✓	✓	x	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2	CN	(Fan & Xio, 1998)	x	✓	x	x	x	x	x	x	✓	●	●	●	✓	●	✓	●	●	✓	●	●	●	●	●	●	●	●
3	UK	(Mitchell & Bates, 1998)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	●	✓	●	●	●	●	●	●	●	●	●
4	CN	(Hiu et al., 2001)	✓	✓	✓	✓	✓	x	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5	DE	(Walsh, Thurau, et al., 2001)	✓	✓	✓	✓	x	✓	✓	x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
6	DE	(Mitchell & Walsh, 2004)	✓	✓	✓	✓	x	✓	✓	x	✓	✓	✓	✓	●	✓	●	●	●	●	✓	✓	✓	✓	●	●	●	●
7	TW	(Yang & Wu, 2007)	✓	✓	✓	x	x	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
8	MY	(Mokhlis & Salleh, 2009)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	x	✓	●	●	●	●	x	●	●	●	●	●	●	●
9	NL	(Kasper et al., 2010)	✓	✓	x	✓	✓	x	x	✓	●	✓	●	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●
10	PL US	(Solka et al., 2011)	x	✓	x	x	✓	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●

Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered, CN – China, DE- Germany, GR-Greece, IN-India, MY-Malaysia, NL-The Netherlands, NZ-Tanzania, PL-Poland, TW- Taiwan, UK-United Kingdom, US – United States of America

The literature also reveals that hedonism influences brand-conscious consumers to lean towards it (Shim, 1996; Sproles & Kendall, 1987; Zhou et al., 2010). The influence of hedonism has made novelty-fashion consumers more hedonistically inclined (Babin & Harris, 2009; Zhou et al., 2010) to the extent that the two have become indistinguishable (Babin & Harris, 2009; Lysonski et al., 1996 ; Zhou et al., 2010). Furthermore, impulsiveness is also influenced by hedonism, which is why they are closely associated (Sinha & Uniyal, 2005; Zhou et al., 2010) and that habitual brand-loyal consumers make most of their decisions based on hedonistic behaviour (Zhou et al., 2010). Despite the influence hedonism has on many other CSI factors, this factor is highly unconfirmed. Maybe its overlapping nature could be the cause of it being highly unconfirmed compared to other CSI factors.

2.4.5 Price and value-for-money consciousness

Price- and value-conscious customers look for the best value for money, bargains, sales, and lower prices (Sproles & Kendall, 1986); they are not brand loyal but likely to be more cognitive in nature (Zhou et al., 2010). They prefer active, analytical, detailed (comprehensive) learning, and careful comparison (Fan & Xio, 1998 ; Sproles & Sproles, 1990), the way perfectionists do. However, they are also less likely to reduce the consideration set (Kasper et al., 2010), which is the opposite tendency to perfectionists. They are less educated, with low income, and are less trendy (Wang et al., 2004). Due to this, they do not plan their purchases (Wesley et al., 2006) as they depend on sales or seasonal low prices. The other feature of these price-conscious consumers is that they are less confused by over-choice, information overload, or ambiguity (Kasper et al., 2010; Mitchell & Walsh, 2004), because they mostly have two criteria: best quality and best price, caused by their tendency to carefully watch how much they spend (Wiedmann et al., 2001).

Moreover, price-conscious consumers use the Internet to find cheaper deals and coupons (Beynon, Moutinho, & Veloutsou, 2010; Jepsen, 2007). In addition, price-conscious consumers are sometimes referred to as economic shoppers (Solomon, 2010), or frugal consumers (Hahn & Kean, 2009; Kim et al., 2009). Adding to this, the price-conscious-based decision-making style is common on seasonal products as it was found by (Bauer et al., 2006). This may mean that product seasonality can influence the decision-making style of a consumer.

In addition, price-conscious consumers exhibit utilitarian behaviour (Zhou et al., 2010), and they do not respond to sensational marketing; they are mainly attracted to price-related marketing (Michaelidou, 2012). Further, price-conscious consumers are good information searchers (Bauer et al., 2006) like perfectionist consumers. Thus, marketers can use their hunger for information to influence them. Nevertheless, marketers should be aware that these consumers are utilitarian, frugal, and price conscious; hence they may well exhibit some conservative or laggard behaviour.

Another discovery from research is that most men tend to be more low-price seeking than women (Bakewell & Mitchell, 2004; Shim, 1996; Sinkovics et al., 2010; Wiedmann et al., 2001). They go for price-value for money for the following reasons: to show off that they are tough negotiators, and to beat the sellers (Bakewell & Mitchell, 2006). Further, Kasper et al. (2010) reported that males are more price conscious than females.

Regarding the youth, some research has shown different results on how youth exhibit price consciousness decision-making behaviour. On the other hand, Bakewell and Mitchell (2006) and Shim (1996) report that youngsters are less likely to be price conscious. On the other hand, Solka et al. (2011) say that youth has high price consciousness. The former situation is likely because some youths receive allowances and are still dependent on their parents, hence are less conscious of the prices of the products they buy as they have not yet experienced how difficult it is to earn money. The latter situation may occur because some youth have irregular or limited incomes, which make them price conscious, as they do not know when they will receive an income. Situations like this call for thorough understanding of the price-conscious factor in the CSI scale.

Pricewise, price-conscious consumers always look for value for money (Bakewell & Mitchell, 2004; Zhou et al., 2010) and they may postpone their decision to buy until they find an acceptable value-for-money item. Their key principle is value for money (Kim et al., 2009), which makes them good at bargaining and price negotiations (Roy & Thill, 2004). Therefore, marketers have to communicate quality and price (value for money) (Zhou et al., 2010) if they want to win these consumers. With value for money in their mind, price-conscious consumers buy as much as possible during sales, aiming at getting the best price possible. They stock up during sales periods and, therefore, have few and infrequent shopping trips (Roy & Thill, 2004). Hence, we should not treat them as frequent buyers.

Consumers identified in this dimension seem to be extremely price sensitive. For example, they are unwilling to pay high prices (Lichtenstein, Ridgway, & Netemeyer, 1993; Wesley et al., 2006). However, there is a contradiction in the findings on the relationship between price consciousness and quality. The findings by Wang et al. (2004) show that price-conscious consumers are less quality conscious, while Shim and Gehrt (1996) indicate that these consumers respect both price and quality. Kasper et al., (2010) reported that price-conscious consumers also exhibit quality orientation, which is why they exhibit value-for-money behaviour (i.e. best quality at the best price possible).

Also, it is worth noting that price-related loyalty programmes will work for price-conscious consumers (Bakewell & Mitchell, 2004, 2006). Research has also pointed out that those who have higher price consciousness seem to exhibit lower fashion, brand loyalty, and quality traits (Kwan et al., 2008); they have negative perceptions about price (Sternquist, Byun, and Jin, 2004); and they are very price conscious, rather than impulsive (Li, Daugherty, & Biocca, 2003).

The price-conscious construct has faced some criticisms regarding its reliability (see Table 2.7). For instance, Wickliffe (2004) pointed out that the price-conscious construct was established using student samples only, and it has not produced significant reliabilities across countries. Zhou et al. (2010) show that the price-conscious factor did not do well in their Chinese study. Further, Kwan et al. (2008) found this factor to be insignificant, even though it was identified in their study. In addition, this factor was not confirmed in Germany (Walsh, Thurau, et al., 2001), nor in Tanzania (Lysonski et al., 1996). This means that it may not be a reliable factor, and hence the need for refinement or reconstruction.

Table 2.7: Studies that do not support the price-value consciousness factor

No.	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Over-choice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	GR IN NZ US	(Lysonski et al., 1996)	✓	✓	✓	✓	x	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2	CN	(Fan & Xio, 1998)	x	✓	x	x	x	x	x	x	✓	●	●	●	✓	●	✓	●	●	✓	●	●	●	●	●	●	●	●
3	CN	(Hiu et al., 2001)	✓	✓	✓	✓	✓	x	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4	DE	(Walsh, Thurau, et al., 2001)	✓	✓	✓	✓	x	✓	✓	x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5	DE	(Mitchell & Walsh, 2004)	✓	✓	✓	✓	x	✓	✓	x	✓	✓	✓	✓	●	✓	●	●	●	●	✓	✓	✓	✓	●	●	●	●
6	US	(Cowart and Goldsmith, 2007)	x	✓	✓	✓	x	✓	x	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
7	TW	(Yang & Wu, 2007)	✓	✓	✓	x	x	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
8	IR	(Hanzaee & Aghasibeig, 2008)	✓	✓	✓	✓	x	✓	✓	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	✓	x
9	MY	(Mokhlis & Salleh, 2009)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	x	✓	●	●	●	●	x	●	●	●	●	●	●	●
10	NL	(Kasper et al., 2010)	✓	✓	x	✓	✓	x	x	✓	●	✓	●	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●
11	PL US	(Solka et al., 2011)	x	✓	x	x	✓	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●
12	AU	(Nayeem, 2012)	✓	✓	x	✓	x	x	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered																												

2.4.6 Impulsiveness

Generally, impulsive customers are characterised by not planning their shopping, by being careless, and being unconcerned about how much they spend on what they buy (Sproles & Kendall, 1986; Mitchell & Bates, 1998; Zhou et al., 2010), which is the opposite of comparison-buying consciousness (To, Liao, & Lin, 2007). This means they can be associated with hedonistic consumers (Zhou et al., 2010).

Most impulsive-oriented consumers buy impulsively and then regret it later (Kwan et al., 2008; Yang & Wu, 2007). These customers are also associated with poor decision-making such as over-spending (Bakewell & Mitchell, 2004; Kim et al., 2009). They cannot resist the persistent urge to buy immediately (Solomon, 2010) as they are prone to the influence of advertising (Bakewell & Mitchell, 2004; Lysonski et al., 1996 ; Wickliffe, 2004). This is why marketers use sales-promotion advertising to influence impulsive product purchasers (Balabanis & Craven, 1997; Hassay & Smith, 1996) by targeting consumers' emotions, which in turn triggers impulsive buying decision-making.

Unfortunately, some unethical marketers use impulsive vulnerability to market addictive products and services (Pechmann, Levine, Loughlin, & Leslie, 2005). This calls for serious government intervention through rules, laws, policies, government orders, and regulations. In addition, the impulsive factor has been associated with some consumer buying and consumption aspects, such as fashion and getting excited about new products (Zhou et al., 2010; Bakewell & Mitchell, 2004; and Baoku et al., 2010).

Despite impulsive buying having some positive effects (Forney, Gopinath, & Nyer, 2005), and being a valuable pastime (Hausman, 2000), it is negatively associated with non-adaptive and struggling learning consumers, which makes them a target for consumer education (Sproles & Sproles, 1990). Additionally, it is considered to be an undesirable consumer decision-making orientation (Kim et al., 2009). It is regarded as a factor that represents low-income and less-organised people (Roy & Thill (2004). Impulsiveness is treated as an undesirable orientation (Shim, 1996); and seen as a less important decision-making style (Walsh, Thurau, et al., 2001).

However, Li et al. (2003) argue that consumers are not generally impulsive and careless shoppers; they may only be experiencing an unplanned purchase. In an attempt to explain these researchers' differing opinions on the relationship between impulsive and unplanned purchases, Solomon (2010) elaborates that the latter situation occurs when one is reminded to buy something after they have seen it. Despite the clarification by Solomon (2010), it still appears that consumers can make poor buying decisions due to impulsiveness (Shim & Gehrt, 1996). Therefore, it is critical that governments intervene through policies, procedures, rules, regulations, education, de-marketing, "sin-taxes," and consumption discouragement. Similarly, encouraging consumers to plan before going shopping will help them to reduce impulsive purchasing (Baumeister, 2002).

Demographically, research indicates that youths are more impulsive than the older generation (Wickliffe, 2004). Gender-wise, some research shows that women are more impulsive than men, especially when buying clothing and cosmetics (Fischer & Arnold, 1990; Mitchell & Walsh, 2004). On the other hand, men are more impulsive when purchasing electronics than women (Bakewell & Mitchell, 2004; Sinkovics et al., 2010). However, Wiedmann et al. (2001) and Mitchell and Walsh (2004) reached different observations that men are equally as impulsive as women.

On cultural aspects, limited research has been undertaken in collective societies regarding impulsive buying (Vohs & Faber, 2007). Within that limited research, results show that consumers from collectivist societies, such as Asians, are more rational and less impulsive than their counterparts from individualistic societies (Kacen & Lee, 2002; Kim et al., 2009; Sharma, Sivakumeran & Marshall, 2011). This is because they fear fellow members in society will judge them whereas consumers from collective societies are encouraged to suppress impulsive buying since it is considered a hedonistic desire (Kim et al., 2009), instead seeing it as an act of deliberate self-indulgence (Sharma et al., 2011). Other findings from consumer research show that consumers with better disposable income are prone to impulsive buying (Shim, 1996); nonetheless, the question is, if better disposable income leads to a proneness to be impulsive, then why are consumers who are perfectionist or brand conscious not prone to impulsiveness, despite their better disposable incomes as shown above?

Mixed results have been recorded regarding the reliability of the impulsiveness factor. Some studies do not confirm the factor (see Table 2.8) and others show that the factor is low on Cronbach alpha (Hafstrom et al., 1992: Lysonski et al., 1996; Mitchell & Bates, 1998; Hiu et al., 2001). As a result of this challenge, Wickliffe (2004) identifies the "confused impulsive consumer" as a new construct, in contrast with previous studies. Likewise, the impulsive factor has low reliability and needs some improvement, as pointed out by Bakewell and Mitchell (2004), and Zhou et al. (2010).

Another criticism of the impulsive factor is that it overlaps with habitual brand loyalty (Fan & Xiao, 1998). However, a low score on the impulsive factor is considerably desirable because this behaviour is considered negative/unhealthy (Sproles & Kendall, 1987); therefore, most people do not indicate this trait because they fear that they will be labelled as careless buyers. On the other hand, some studies support the impulsive factor, for example, Durvasula et al., (1993) and Walsh, Thurau, et al. (2001) show that the impulsive factor is highly supported for internal consistency in Tanzania.

Table 2.8: Studies that do not support impulsiveness factor

No.	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Overchoice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	CN	(Fan & Xio, 1998)	x	✓	x	x	x	x	x	x	✓	●	●	●	✓	●	✓	●	●	✓	●	●	●	●	●	●	●	●
2	CN	(Hiu et al., 2001)	✓	✓	✓	✓	✓	x	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3	US	(Wesley et al., 2006)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4	NL	(Kasper et al., 2010)	✓	✓	x	✓	✓	x	x	✓	●	✓	●	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5	AT	(Sinkovics et al., 2010)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
6	PL US	(Solka et al., 2011)	x	✓	x	x	✓	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●
7	AU	(Nayeem, 2012)	✓	✓	x	✓	x	x	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered.

2.4.7 Confusion from over-choice

Despite the absence of a generally accepted definition of the confusion from over-choice factor (Mitchell et al., 2005), it has been established that consumers in this category identify themselves with many stores, which causes a problem in making choices, due to information overload (Mitchell & Bates, 1998; Shim, 1996; Sproles & Kendall, 1986). This makes them feel that there is too much to choose from (Wiedmann et al., 2001). Furthermore, confusion from over-choice is also treated as an undesirable orientation because it is

considered a poor decision-making style (Kim et al., 2009), like the way the impulsive factor has been considered, as set out in the discussion above.

Consumers who are confused from over-choice are regarded as non-pragmatic and overpowered shoppers (Shim & Gehrt, 1996). Because they feel overpowered, these consumers exhibit anger, frustration, anxiety, and irritation, as demonstrated by Mitchell et al. (2004), traits which are unacceptable in most societies. Therefore, to hide these socially unacceptable behaviours, these consumers end up being passive, non-adaptive and struggling learners (Sproles & Sproles, 1990). This is because they have already lost confidence in themselves. Moreover, these authors have also added that overly detailed people are prone to being victims of confusion and overload (Bao et al., 2003; Kim et al., 2009).

Another feature of these consumers is that they are prone to confusion, and have difficulty in making decisions (Zhou et al., 2010). They also tend to seek help from others, such as opinionated leaders, as explained by Fan and Xio (1998). Confused purchasing commonly exhibits itself in more inexperienced consumers (Baoku et al., 2010), such as youth and first-time buyers of a certain product or service. In addition, Zhou et al. (2010) see confusion from over-choice as a utilitarian factor; nevertheless, there is concern about their assertion because utilitarians are not fancy. So, it is unclear why they are associated with the confusion factor.

Moreover, in her study of Korea and the US, Wickliffe (2004) indicates that there is a positive link between confusion by over-choice and impulsiveness, by showing that the higher the information overload, the higher the impulsiveness. Yet, she was not able to explain why and how. Another related observation was made by Bakewell and Mitchell (2004), who revealed that time-restricted consumers are prone to confused purchasing. This could be that they have a lot of buying decisions to make in a very short time, and therefore do not make the right decisions.

The confusion from over-choice and information-overload factor has been demographically exhibited in different ways. For example, it has been observed that children are easily confused by over-choice when engaged in more deliberate and extensive information because they have less consumer-related skills and experience (Kim et al., 2009; Shim, 1996). Therefore, advertisements to children should not have too much information, otherwise they will get confused. In relation to senior citizens, research shows that they are easily confused by over-choice and information overload due to their reduced information-processing competencies because of aging (Wang et al., 2004).

On the contrary, Mitchell et al. (2005) and Wickliffe (2004) show that age may reduce confusion based on past buying experiences of older consumers. However, Mitchell & Bates (1998) assert that young intelligent consumers are not confused by product information. This is because their brains can handle a large amount of information. This assertion contradicts those put forward by Shim (1996) and Kim et al. (2009), as indicated above. These different opinions may mean that this factor is contingent on the situation and time at hand in relation to socio-demographics.

Gender-wise, research has shown that men tend to be more easily confused by over-choice than women, as women are more experienced with different product information than men (Kwan et al., 2008; Mitchell et al., 2004). On the contrary, Mitchell and Walsh (2004) and Yasin (2009) show that men are less confused by over-choice, and females are slightly more confused than men. Such contradictions call for further research on the CSI dimension in order to address them. Contrastingly, a different picture emerges regarding product-specific research. For domestic items, men seem to be more confused than women while men are less confused in relation to car accessories than women; and old people are more confused with electronics than youth (Turnbull, Leek, & Ying, 2000). Therefore, it can be inferred that confusion may not only be caused by over-choice, but also by product type, consumer age, and gender.

Consumers who are better educated, with a good income and higher social class status have shown less evidence of confusion by information overload and over-choice (Bakewell & Mitchell, 2006; Shim, 1996). This could be due to the fact that educational experience has given them competence in acquiring, managing, comprehending, and effectively utilising huge amounts of information. On the other hand, people who are less educated are prone to over-choice confusion and information overload (Wang et al., 2004) due to their limited ability in analysing, synthesising information, and in making choices effectively and efficiently.

Likewise, different societies have different outcomes regarding this factor. Studies on diverse societies using the CSI have shown that most collective societies tend to be confused by over-choice (Kim et al., 2009). Further, Baoku et al. (2010) indicated that rural dwellers exhibit confused purchasing more than urbanites and observed that the bigger the family, the higher the possibility of confused purchases.

After some discussion on the features of confusion by over-choice factor, it is necessary to discuss its causes. One of the causes is the presence of too many similar and unclear stimuli (Mitchell et al., 2004), because unclear stimuli send unclear messages, which in turn cause confusion. Also, too many similar stimuli cause chaos in a consumer's mind, which leads to confusion. Other causes of consumer confusion are brand similarity, information overload, the number of characteristics considered, complex products, ambiguous information, false product claims, poor product manuals, non-transparent pricing, conflicts between beliefs, time pressures, and look-alike packaging (Chryssochoidis, 2000; Kasper et al., 2010; Lee & Lee, 2004; Mitchell et al., 2004; Solomon, 2010; Walsh, Hennig-Thurau, & Mitchell, 2007).

In addition, further factors that can influence the level of confusion are: age, education, tolerance to ambiguity, cognitive style, learning style, decision-making style, the environment, time, mood, expectation, experience, and level of involvement (Bakewell & Mitchell, 2006; Mitchell et al., 2004). However, some researchers have a different opinion on the matter, advocating that people should not blame excessive information on confusion and that people should understand that it is an excessive choice, rather than excessive information, which seems to cause confusion (Kasper et al., 2010). This may be a plausible explanation, because it is the choice of consumers to choose which type of information to accept or reject; they are not forced.

Moving from causes of confusion from over-choice and information overload, it is also necessary to discuss its impacts on different CDMS stakeholders. These impacts include: negative word-of-mouth, dissatisfaction, dissonance, shopping fatigue, decreased brand loyalty, decreased trust, product misuse, and reduced self-confidence (Chernev, 2003; Kim et al., 2009; Mitchell et al., 2004; Walsh, Mitchell, Kilian, & Miller, 2010). These impacts of confusion make consumers fail to familiarise, comprehend, and compare goods and services alternatives available to them (Kasper & Driessen, 2010).

These impacts also create buying difficulties, which in turn hamper marketers' efforts to achieve their goals (Leek & Kun, 2006). Nevertheless, Zhou et al. (2010) argue that confusion resulting from over-choice has a limited effect on long-term benefits of products or services. However, this argument needs some explanation and response to questions, such as, for instance: if confusion by overchoice causes negative effects, then why does the long-term continuation of the same have limited negative long-term impacts on products and services?

To address the challenge of confusion from over-choice and information overload, different suggestions have been put forward. Some of these suggestions include using perfectionism as a shield against confusion, because perfectionism encourages systematic information searching, and knowing exactly what is needed (Mitchell et al., 2004). Also, consumers can cope with confusion by adopting buying-decision risk-reduction approaches, which include: abandoning purchases, clarifying buying goals, seeking relevant information, narrowing down selection criteria and alternatives, sharing or delegating the purchase, doing nothing, adopting brand loyalty, or postponing the purchase (Auger, Devinney, Louviere, & Burke, 2010; Kasper et al., 2010; Mitchell et al., 2004).

Further, to reduce the effect of confusion by over-choice, some consumers resort to buying well-known brands (Wiedmann et al., 2001) to limit the possibility of making wrong buying decisions. The other strategy consumers may use to address this challenge is to avoid commercials, as it is believed that fewer commercials create less confusion (Lysonski et al., 1996). For companies to develop and sustain long-term relationships with consumers, they have to reduce confusion to consumers (Wilson, Zeithaml, Bitner, & Gremler, 2012). This will help consumers in making effective and efficient buying decisions.

Regarding reliability, this factor has exhibited mixed results. For example, in some cases it gave reliable results and in some cases, it did not (Wickliffe, 2004). Similarly, some studies conclude that this factor requires some refinement as it has low reliability (Durvasula et al., 1993 ; Shim & Gehrt, 1996). By contrast, Yasin (2009), Bakewell and Mitchell (2004), and Sinkovics et al. (2010) indicate that this factor is statistically significant, and stable across cultures. In a sample of 22 studies across nations, only four did not confirm the factor (see Table 2.9). However, it is important to study and discover the origin of these differences. It is also important to research these factors for developing countries' consumers and see whether the same results will be exhibited.

Table 2.9 Studies that do not support confusion from overchoice

2.4.8 Habitual, Brand Loyal

No.	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational,hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Overchoice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	CN	(Fan & Xio, 1998)	x	*	x	x	x	x	x	x	*	●	●	●	✓	●	✓	●	●	✓	●	●	●	●	●	●	●	●
2	US	(Cowart and Goldsmith, 2007)	x	✓	✓	✓	x	✓	x	✓	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●
3	NL	(Kasper et al., 2010)	✓	✓	x	✓	✓	x	x	✓	●	✓	●	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4	PL US	(Solka et al., 2011)	x	✓	x	x	✓	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●
Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered																												

The eighth and final factor in the original CSI scale is brand loyalty. Brand loyalists refer to the consumers who are likely to have favourite brands and stores (Sproles & Kendall, 1986; Zhou et al., 2010). These loyal consumers are less likely to compare prices (Wiedmann et al., 2001) because they have a habit of exhibiting less information-seeking, decision-making, and brand-evaluation behaviours (Mitchell et al., 2004). Moreover, they make decisions based on hedonistic habitual behaviours and not on information-intensive cognitive (Zhou et al., 2010).

Other features of this factor are that it is associated with conspicuous traits and tends to be high in sensory innovativeness (Shim, 1996; Zhou et al., 2010). This gives it a high potential for influencing other consumers' behaviours (Wood & Neal, 2009). It is also associated with careful, serious analytical learning (Sproles & Sproles, 1990). Nevertheless, this argument is contrary to the above-stated views of Mitchell et al. (2004), who argue that habitual brand loyalists exhibit less information-seeking behaviour.

Significance-wise, brand loyalty is one of the key factors for business success (Ambler, 2003; Walsh et al., 2010) because it has a close relationship with most consumers' lifestyle characteristics (Kwan et al., 2008). However, some research shows that due to brand loyalty's ability to influence consumers' lifestyle characteristics, the capacity of consumers to make rational decisions is reduced (Poiesz, 2004). This is due to its tendency to affect biased emotional connections towards a particular brand. In the same line of argument, research has also revealed that supermarket customers are relatively loyal, compared to others (Beynon et al., 2010). In addition, Decrop & Snelders (2005); Wiedmann et al. (2001) revealed that tendencies towards risk aversion, quality, and best value for money may lead to brand loyalty.

Contrariwise, the brand-loyalty factor has limited influence on consumers who are variety seekers. This is because high variety seekers tend to not be loyal to any particular product, service, or brand (Trivedi & Morgan, 2003). The brand-loyalty factor can influence consumers who are low variety seekers as they tend to be loyal (Michaelidou, 2012). Another group of consumers for whom the brand loyalty factor has limited influence is novelty seekers, because they tend to exhibit multiple loyalties (Michaelidou, 2012), which may hinder brand-loyalty success. In addition, Mitchell et al. (2004) reveal that confused consumers tend to be less brand loyal because they are prone to brand confusion, making them unstable when it comes to brand

choices and loyalty. Other areas brand loyalty cannot influence are culture and word of mouth. This is because culture and word of mouth influence the brand loyalty factor (Lerman, Maldonado, & Luna, 2009) and they can either weaken or improve it (Wiedmann et al., 2001).

Demographically, brand loyalty seems to be more relevant for male rather than female consumers (Wiedmann et al., 2001). Yet Bakewell and Mitchell (2006) show that males tend to be less brand loyal, while Mitchell and Walsh (2004) observed different results, indicating that there is no difference between males and females on habitual brand loyalty. Doran (2002) indicates that individualist consumers are more brand loyal than collectivist consumers, while Shim (1996) shows that progress in age has a positive relationship with this factor.

Regarding brand loyal factor reliability, research has revealed that even though brand loyalty is one of the stable factors (Lysonski et al., 1996), it did not do well in some countries such as Austria, Germany, China, India, and Greece, as well as south-west America (Durvasula et al., 1993 ; Fan & Xio, 1998 ; Shim, 1996; Sinkovics et al., 2010; Siu, Wang, Chang, & Hui, 2001; Walsh, Thurau, et al., 2001) (see Table 2.10). This factor has been regarded by some researchers as less stable and needing more refinement (Durvasula et al., 1993 ; Wiedmann et al., 2001). Hafstrom et al. (1992) and Sinkovics et al. (2010), stated that the factor is one of the least important factors for people from the Middle and Far East. However, Mitchell and Bates (1998) and Wickliffe (2004), indicate that it is a stable factor; hence more research on clarifying this issue is required.

Concerning its uses, brand loyalty has been used by marketers as well as consumers for different purposes. For example, brand-loyalty strategy can be suitably used for companies that offer complicated as well as fast-changing products, such as electronics or smartphones (Walsh et al., 2010). Likewise, loyalty is used to win and retain customers through creating a brand personality (Shim, 1996; Zhou et al., 2010), and a particular market segment that can identify itself with it. Brand loyalty is also used as a risk-reduction strategy, because it eliminates the need to search for new information (Singh, 2006). Finally, brand loyalty is one of the ways consumers reduce information overload because it equates to making fewer comparisons (Mitchell et al., 2004).

Table 2.10. Studies that do not support the habitual, brand loyal factor

No.	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Overchoice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	CN	(Fan & Xio, 1998)	x	✓	x	x	x	x	x	x	✓	●	●	●	✓	●	✓	●	●	✓	●	●	●	●	●	●	●	●
2	UK	(Mitchell & Bates, 1998)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	●	✓	●	●	●	●	●	●	●	●	●
3	DE	(Walsh, Thurau, et al., 2001)	✓	✓	✓	✓	x	✓	✓	x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4	DE	(Mitchell & Walsh, 2004)	✓	✓	✓	✓	x	✓	✓	x	✓	✓	✓	✓	●	✓	●	●	●	●	✓	✓	✓	✓	●	●	●	●
5	T W	(Yang & Wu, 2007)	✓	✓	✓	x	x	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
6	NL	(Kasper et al., 2010)	✓	✓	x	✓	✓	x	x	✓	●	✓	●	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●
7	AT	(Sinkovics et al., 2010)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
8	PL US	(Solka et al., 2011)	x	✓	x	x	✓	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●
Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered.																												

2.5 Profiles, dimensions, and features of the CSI Scale

In summary, this section discussed features of the CSI and its dimensions, in order to facilitate an understanding of CSI factors in relation to different demographics, economic, and socio-cultural environments. It is feasible to suggest that the utilisation of the instrument across different circumstances with variation in sample size and most naturally, combinations of preferences based on personal experiences would generate mixed results.

Despite the non-research factors' effect on the CSI, some research factors such as the Cronbach alpha cut-off point differences (i.e. 0.4 or 0.7) have resulted in different outcomes, as discussed and shown in section 2.2. This has an effect on the validity and reliability of the CSI scale. Therefore, researchers have to develop one standard Cronbach alpha for testing a scale.

Through the discussion, it can be seen that currently the CSI is not yet universally developed, accepted or generally known. In addition, from the discussion above, it seems that there is a need for the CSI scale to be updated to meet the ever-changing current customers. This calls for identifying, developing and refining CSI dimensions that will be applicable to contemporary consumers (such as green consumers).

After a discussion about the profiles, dimensions, and features of the CSI, the next section, which is the third part of this literature review, is set out. This section focuses on the key trends of the CSI in general and its inference to consumers. Particularly, the discussion focuses on CSI trends and new factors and dimensions emerging across nations, samples, and products.

2.6 The CSI and its Applicability in Different Cultures

In this section, the CSI model trends in Asia, Europe, and Australasia, as well as its trend regarding students and the general public population, will be covered, followed by a discussion on the newly identified CSI factors and my proposal to integrate the green consumption dimension.

The CSI has experienced different results from different cultures over time. Studies carried out in the US during the mid-1980s to early 1990s, where the original study was initiated, show that the instrument is statistically significant, can be generalised, and has elements of construct validity, as well as the potential to be used across nations (Hafstrom et al., 1992; Sproles & Sproles, 1990). However, the instrument was criticised for focusing on a student population only, which does not represent the whole spectrum of consumers (Hiu et al., 2001; Walsh, Thurau, et al., 2001; Wang et al., 2004) from different demographics and cultures. Hence, the need for further CSI research in relation to the general public, and beyond the US. Twenty years after the establishment of the CSI, a study was conducted on the general public to test the applicability of the CSI to other populations, rather than high school students (Wesley et al., 2006) found that empirical research supported CSI's applicability among adult shoppers in different mall contexts in the US. This may mean that in the US, the instrument is relevant to different populations: from high school to undergraduate students, to the general population, as indicated in Table 2.11 below.

Table 2.11 The CSI trend in the US

	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic shopping consciousness	Price-Value Conscious	Impulsiveness	Confused by Overchoice	Habitual, Brand Loyal
1	US	Sproles, G.B., & Kendall. (1986).	✓	✓	✓	✓	✓	✓	✓	✓
2	US	Sproles, E.K. and Sproles (1990)	✓	✓	✓	✓	✓	✓	✓	✓
3	US	Wesley, LeHew, and Woodside (2006)	✓	✓	✓	✓	✓	✓	✓	✓

No.	C'ntry	Reference	Study Objective	Sample	Instrument	Analysis	Results-Conclusion
1	US	Sproles & Kendall. (1986).	method for measuring characteristics of CDMS	501 US high school students	8-factor method of 48 items, 5-point Likert scale	The principal component method with varimax rotation of factors, communality estimates of 1.0. A constrained 8-factor solution was extracted to test the 8 characteristics model	CSI is useful for consumer-interest professionals. Further application and validation of the CSI across the population is encouraged. 8 factors of 40 items
2	US	Sproles and Sproles (1990)	To explore the relationships between individuals' learning styles and their CDMS	501 US high school students	Sproles and Kendall (1986)	Sproles and Kendall (1986)	Found statistically significant relationships between learning and decision-making characteristics
3	US	Wesley, LeHew, and Woodside (2006)	To assess the relationship between CDMS and	527 adult consumers aged	Sproles and Kendall (1986),	adopted Exploratory Data Analysis (EDA)	Empirical research supported CDMS existence among adult shoppers in different mall contexts.

			shopping malls behaviour	18 to 85 plus	8-factor, 39-items, 5- point Likert scale		Gender is a prime antecedent associated CDMS. CDMS influence on mall shopping indirect Perfectionist consumers are ranked high in planned mall expenditures
Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered, US-United States of America							

However, when the CSI was tested with a sample drawn from different cultures, the results were problematic, leading to some CSI factors being unconfirmed. For example, Hafstrom et al. (1992), with a sample combining respondents from two different cultures (Korea and the US), rejected the novelty-fashion-conscious factor. It is plausible that, during the early 1990s, Asian cultures like China and others were not as fashion conscious as their American counterparts (Zhou et al. (2010).

In addition, Koreans by practice seem to be more time-factored (Hafstrom et al., 1992), rather than novelty-fashion consciousness did not appeal to them, and was therefore not confirmed. This may confirm that cultural factors affect consumer decision-making styles. Therefore, testing CSI items on a diverse, multicultural sample of respondents may lead to poor factor loading if care is not taken. This is due to different cultural perceptions towards the CSI factors, hence translating to poor reliability and validity of the instrument.

Hafstrom et al. (1992) also developed a new factor called Time-Energy Conserving which could be a result of the influence of Korean members who made up a majority in the sample. Previous and later studies with only a US based sample or a sample taken from the US together with respondents from other countries did not confirm this factor (see Table 2.12 below). It suggests that the culture of most of the sample's members may influence CSI results, positively or negatively. Therefore, care should be taken when a multicultural sample is drawn in terms of representation.

Table 2.12: Culture and sample structure influence

No.	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Over-choice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	US	(Sproles & Kendall, 1986)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3	KR US	(Hafstrom et al., 1992)	✓	✓	x	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●	●
4	NZ	(Durvasula et al., 1993)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5	GR IN NZ US	(Lysonski et al., 1996)	✓	✓	✓	✓	x	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
6	US	(Wesley et al., 2006)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

7	PL US	(Solka et al., 2011)	x	✓	x	x	✓	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●
8	TW US	Chen, Chen, and Lin (2012)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered, GR- Greece, IN -India, KR- Korea, NZ-Tanzania, US-United States of America																												

Following the line of study, Wickliffe (2004) found that the CSI is not a reliable or valid measure of CDMS for both Korea and the US. Another observation of this study was the influence of the quantity (proportion) of representation of a certain culture in a multi-cultural sample. When a particular culture has the majority proportion of representation in the sample, like the one in Wickliffe (2004) study where Koreans were the majority (156 against 126 Americans), then there is a possibility that they (the Koreans, in this example) will influence/bias the results.

A similar trend was exhibited following an investigation employing multiple countries (US, NZ, IN, GR) (Lysonski et al., 1996), where the price-value consciousness factor was rejected. Two countries (India and Greece) were grouped as less developed where consumers who have lower disposable income are prone ot be price conscious (Lysonski et al., 1996). Therefore, if this is the case, then it is expected that price consciousness could be confirmed; however, it was not confirmed. This could have been due to a biased sample towards developed countries in that study; the US and Tanzania being the majority (95 Greece, 73 India, 210 Tanzania, and 108 USA). Also the sample was not representative of all cross-sections of each population (Lysonski et al. (1996).

Solka et al. (2011), engaged a multicultural sample comprised of Poles and Americans, which revealed that only the brand-consciousness factor was confirmed out of the eight CSI factors. This could be due to factors such as the past economic and political ideological legacies (Polish: communism: American: free-market economy); cultural influences (Solka et al., 2011); and inconsistencies in sample development which may affect CSI generalisability. Results from these studies remind us that testing the CSI on mixed culture samples can bring mixed results. This can be a challenge regarding the practical and theoretical advancement of this construct and may not be useful to marketers, policy makers, consumer-educationists, and consumer-counselling professionals (Table 2.13).

As a result, researchers have proposed some solutions to the above challenge. One proposed solution has been developed by Chen et al. (2012), who conducted a multi-country (culture) study (the US and Taiwan). While bearing in mind the possible differences between the countries and cultures, these researchers adopted an approach that catered for specific results within country cultures, then across the two countries, and thereafter the two countries combined (i.e. a supplementary analysis). The result from this study was that all eight CSI factors were confirmed.

Therefore, it can be inferred that the right sample development and right methodological approach will lead to the right results. Thus, it can be suggested that the CSI should be tested on individual cultures first, on a case-by-case basis before they are combined, because consumers from diverse cultures have different approaches to decision making and priorities, and they respond differently to factors influencing their decision-making styles (Table 2.13).

Table 2.13 Studies with Multi-cultural samples

	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Over-choice	Habitual, Brand Loyal	Quality Conscious	Enjoyment-Variety Seeking	Recreational-Hedonistic consumer	Price Conscious	Time-Energy Conserving	Time conscious
1	GR, IN, NZ, US	Lysonski, Durvasula & Zotos (1996).	✓	✓	✓	✓	x	✓	✓	✓	●	●	●	●	●	●
2	KR, US	(Wickliffe, 2004)	x	x	x	x	x	x	x	x	●	●	●	●	●	●
3	PL, US	Solka, Jackson & Lee (2011).	x	✓	x	x	✓	x	x	x	✓	✓	●	✓	●	✓
4	TW,US	Chen, Chen & Lin (2012).	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●

	Country	Reference	Study Objective	Sample	Instrument	Analysis	Results-Conclusion
1	GR, IN, NZ US	Lysonski, Durvasula & Zotos (1996).	To investigate the Consumers decision-making profiles of four diverse countries	486 Undergrad. students from GR, IN, NZ, US	Sproles and Kendall (1986) 40 items, 5-point scale same as Sproles & Kendall	Same method as Sproles & Kendall's (1986)	Confirmed 7 factors out of 8 with 34 items. CSI requires additional psychometric work before it can be applied to other countries, mainly the less developed.
2	KR, US	(Wickliffe, 2004)	To examine the psychometric properties of a popular instrument used to measure CDMS and its findings were compared to earlier studies	126 American factory workers and students 156 Korean factory workers and students	Sproles and Kendall (1986)	Sproles and Kendall (1986)	CSI not a reliable or valid measure of CDMS for both Korea and the US. The confused impulsive consumer was the new construct and in contrast with previous studies.
3	PL, US	Solka, Jackson & Lee (2011).	To examine gender and culture as predictors of CDMS.	188 Polish students and 208 Americans	Sproles and Kendall (1986), 5-factor model of 41 items, 5- point Likert scale	principal component factor analysis"	Found 4 out of 5 shopping characteristics to be different between Poland and the US (enjoyment, shopping aversion, price consciousness and quality consciousness) and 3 out 5 differ between genders (enjoyment, shopping aversion and brand consciousness).
4	TW, US	Chen, Chen & Lin (2012).	To examine CDMS scores of two cultures (Taiwan and US) to understand better their preferences	Undergrad students: 159 Taiwanese, 151 Americans	Sproles and Kendall (1986), 8-factor model of 40 items, 5- point Likert scale	correlational analyses, Hotelling's T-Squares, factorial MANOVAs (univariate tests and post hoc tests were deem appropriate)	Consumers from different cultures differ in decision-making styles. Understanding the different CDMS can help in identifying suitable sales, marketing, and distribution competitive advantages.

Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered, GR-Greece, IN-India, KR-Korea, NZ- Tanzania, PL- Poland, TW-Taiwan, US-United States of America

The CSI trends in countries other than the US have exhibited a variety of outcomes. Some studies have been chosen to represent these trends in cultural and geographical terms. China will be used to represent Asian countries. For Europe, the United Kingdom, Germany, the Netherlands, and Austria have been selected. Australia, Tanzania, and Malaysia will represent Australasia and the Oceania region. The reason for this decision is to have a wide representation of cultures and countries in relation to CSI trends. Unfortunately, not much research has been done in South America and Africa (Tanzania in particular) with regards to the CSI.

2.6.1 The CSI in Asia (China)

Starting with China, the trend shows that early studies in the country did not confirm the CSI instrument (Fan & Xio, 1998). However, later studies have exhibited a steadily increasing trend in confirming the CSI instrument (Hiu et al., 2001); Kwan et al. (2008); and Zhou et al. (2010), as seen in Table 2.14 below. This may mean that the spread of globalisation and fast Chinese social and economic changes have blurred the social- and economic-difference demarcations. If this trend continues, there is a possibility that the CSI instrument can be widely used in different cultures. It can also be observed from Table 2.14 that the brand-conscious factor is prominent in China. The acceptance of the CSI in China has been growing by time, as shown in the Table 2.14 below. For example, Fan and Xio (1998), confirmed one factor only. Three years later Hiu et al., (2001) confirmed five CSI factors compared to one factor in 1998. Seven years later, seven factors were confirmed by Kwan et al. (2008). And by 2010 all eight original CSI factors were confirmed (Zhou et al., 2010).

Table 2.14 The CSI trend in China

	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Overchoice	Habitual, Brand Loyal	Quality Conscious	Recreational-Hedonistic	Price Conscious	Time conscious	Information Utilization
1	CN	Fan & Xio (1998).	x	✓	x	x	x	x	x	x	✓	●	✓	✓	✓
2	CN	Hiu, Siu, Wang & Chang (2001)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●
3	CN	(Kwan et al., 2008)	✓	✓	x	✓	✓	✓	✓	✓	●	●	●	●	●
4	CN	Zhou, Arnold, Pereira, and Yu (2010)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●

No.	Country	Reference	Study Objectives	Sample	Instrument	Analysis	Results-Conclusion
1	CN	Fan & Xiao (1998).	To examine dimensions and profiles of Chinese CDMS compared to American and Korean	271 undergrads. students in China	Sproles and Kendall (1986). 7-factor model of 40 items 5-point Likert scale	Same method as Sproles and Kendall's (1986)	The maturity of the consumer market may impact the differences in CDMS. 5 factors of 31 items
2	CN	Hiu, Siu, Wang & Chang (2001),	To investigate Chinese CDMS	381 adult consumers in China	Sproles and Kendall (1986). Double analysis method,	Exploratory and confirmatory factor analysis. Cluster analysis for determining market segment in the future	Five CDMS are valid and reliable in Chinese culture (perfectionist, novelty-fashion conscious, recreational, price conscious, and confused by over-choice. 7 factors and 5 market segments derived

					8-factor model of 40 items 5- point Likert scale		
3	CN	(Kwan et al., 2008)	to explore the relationship between consumers' lifestyle and CDMS towards casual wear for Chinese consumers aged 18 to 30	264 male and female university students in Beijing, Shanghai, Guangzhou, Hong Kong and Taipei	Sproles and Kendall (1986). 8-factor model of 40 items 5- point Likert scale	confirmatory and exploratory factor analyses, were employed.	a seven-factor CDMS model was identified for the Chinese samples. Chinese consumers in different locations display different CDMS to better understand CDMS, further research is suggested in order to explore more the fundamental influencing CDMS
4	CN	Zhou, Arnold, Pereira, and Yu (2010)	to develop a better understanding of the variations in CDMS between coastal and inland China	coastal sample of 195 students (114 females and 81 males), inland sample, 245 students (152 females and 90 males)	7-point Likert scale (1=strongly disagree to 7 = strongly agree). 39 items from Sproles and Kendall	Correlation and a multi-group confirmatory factor analysis to assess the measurement invariance between the two groups	consumers in the two regions are similar in utilitarian shopping styles and differ in hedonic shopping styles. China is heterogeneous rather than homogeneous market
Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered, CN- China							

2.6.2 The CSI in Germany

Studies carried out in Germany have quite different outcomes compared to the Chinese ones. Both studies done in Germany did not confirm the same three factors: recreational, hedonistic shopping consciousness, price-value consciousness, and brand loyalty (Mitchell & Walsh, 2004; Walsh, Thurau, et al., 2001). These two studies suggested a total of 10 additional factors to the CSI, with Walsh, Thurau, et al. (2001) suggesting three factors: variety-seeking, time-energy conserving, and price consciousness. Three years later, Mitchell and Walsh (2004) suggested the remaining seven factors: quality consciousness; enjoyment-variety seeking; recreational-hedonistic; economy seeking; fashion-sale seeking; time restricted; and satisfying, as per Table 2.15.

Only one of the newly suggested factors in Germany (variety-seeking), proposed by Walsh, Thurau, et al. (2001), was later confirmed by Mitchell and Walsh (2004). The reasons for the other two suggested factors being not confirmed in the subsequent study yet remain to be explored. The following questions need to be explored: Is it a methodological or other factor? How can this be addressed? In addition, despite the belief that Europe and America are closely related culturally, socially, and economically, the CSI still did not perform well and it remains unclear why it is the case. On the other hand, the latter study ended up developing a further seven factors on top of the existing ones, which might indicate that Germans as consumers are more volatile in their decision-making styles than most of the other countries. This could pose a challenge to marketers, counsellors, and consumer educationists.

Table 2.15 The German CSI

	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumer	Price-Value Conscious	Impulsiveness	Confused by Overchoice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking
1	DE	(Walsh, Thurau, et al., 2001)	✓	✓	✓	✓	x	✓	✓	x	●	●	●	●	●	●	●	●	●	●
2	DE	(Mitchell & Walsh, 2004)	✓	✓	✓	✓	x	✓	✓	x	✓	✓	✓	✓	●	✓	✓	✓	✓	✓

No.	Country	Reference	Study Objective	Sample	Instrument	Analysis	Results-Conclusion
1	DE	(Walsh, Thurau, et al., 2001)	To test the generalisability of CDMS in different countries and with non-student German shoppers	455 German male and female shoppers (eighteen and older)	Sproles and Kendall (1986)	Sproles and Kendall (1986)	supported six factors only
2	DE	(Mitchell & Walsh, 2004)	To examine the validity of an instrument designed to measure CDMS of German male and female consumers	358 German shoppers	Sproles and Kendall (1986) 4 common factor model of 22 items, 5 Male factors of 19 items, 5- Female factors of 17 items	Exploratory principal component method with varimax rotation of factors	Five new male factors (satisfying, enjoyment-variety seeking, fashion-sale seeking, time restricted and economy seeking). CSI has constructed validity for females, but not males.

Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered, DE- Germany

2.6.4 The CSI in United Kingdom

In the case of the UK, a study performed by Mitchell and Bates (1998) did not confirm two CSI factors: recreational, hedonistic shopping consciousness; and habitual, brand loyalty. Instead, four new factors were developed; these include: recreational-hedonistic; time-energy conserving; brand loyal; and store loyal (Mitchell & Bates, 1998). However, eight years later, a study by Bakewell and Mitchell (2006), also using UK consumers, confirmed all eight original CSI factors, and disconfirmed the ones that were developed earlier by Mitchell and Bates (1998) (see Table 2.16 below). This shows a favourable trend towards confirmation of CSI factors in other countries other than the US. This may mean that this instrument has some possibilities of being used widely worldwide.

Table 2.16 The CSI in the United Kingdom

	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic consumers	Price-Value Conscious	Impulsiveness	Confused by Overchoice	Habitual, Brand Loyal	Store Promiscuous	Time-Energy Conserving	Imperfectionism	Store Loyal
1	UK	Mitchell, & Bates (1998)	✓	✓	✓	✓	✓	✓	✓	✓	●	✓	●	✓
2	UK	Bakewell & Mitchell (2006)	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	x

Sr. No.	Country	Reference	Study Objective	Sample	Instrument	Analysis	Results-Conclusion
1	UK	(Mitchell & Bates, 1998)	To examine the generalisability of CSI UK	401 undergrad students in the UK	Sproles and Kendall(1986) 10-factor model 38 items 5-point Likert scale	Same method as Sproles & Kendall's (1986)	Most of the original US traits were found in the UK, the addition of new store-loyalty and time-energy saving traits. The CSI is sensitive enough and able to assess cultural differences and produce sensible results.
2	UK	(Bakewell & Mitchell, 2006)	To investigate male and female CDMS	a non-probability sample of 245 male and 245 female undergraduate students aged 18-22 years (usable items 480)	Sproles and Kendall (1986), 38-items, 8-common factors, 4-male factors, 3-female factors 5- point Likert scale	Principal component analysis with an orthogonal rotation	All 8 US original CSI were confirmed and largely-female, decision-making traits. 4 traits were of which 3 differ between genders.

Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered, UK- United Kingdom

2.6.5 The CSI in Australasia

In Australasia, research conducted by Nayeem (2012) investigated the relationship between individualism-collectivism and CDMS in the automobile industry. The results revealed that individualist and collectivist cultures differ significantly in terms of brand consciousness, and are confused by over-choice; with collectivists scoring higher. There was not much difference in the rest of the factors. These results reinforce the influence of culture on CDMS as one of the CSI influencers.

Further, from the discussion, it appears that the brand-conscious factor is the most confirmed CSI factor across cultures, as shown in the above summary tables. This may mean that brand consciousness is a universal factor; hence marketers may put more effort into creating a strategic fit between their brand and the country they are targeting.

Adding to that, perfectionism also has a wide confirmation from different cultures, except for one Chinese study by Fan and Xio (1998). This may mean that people from diverse cultures care not only about the brand

but also want a perfect quality brand. Therefore, marketers should build a quality and not a mediocre brand. Novelty factor seems also to be widely accepted across cultures except for two studies done in China (Fan & Xio, 1998 ; Hiu et al., 2001). This could be a sign that Chinese may be lagging when it comes to novelty-buying behaviour, due to the influence of communism before the domestic policy shift to a more market-based economy started to show some effects.

However, despite wide coverage of the CSI across the world, little, if any, research has been undertaken in an African developing-country context, such as Tanzania. Therefore, there is a significant and immediate need for further research on the CSI in respect of developing countries in Africa.

2.6.6 CSI trends among student consumers

Some studies investigated the applicability of the CSI to youth and students, including high school to undergraduate students, from different nations and cultures, with various results as indicated in Table 2.17 below. The use of students in the CSI was started by Sproles and Kendall (1986), who used them to develop the CSI as a method for measuring CDMS. The outcome indicates that the CSI is useful for consumer-interest professionals. However, because it was only tested on students, it needed further test research on its application and validation across other population groups. The next study to use students in the CSI was conducted by Sproles and Sproles (1990), investigating the relationship between students' individual learning styles and their CDMS. They found that there is a statistically significant relationship between learning and CDMS characteristics.

Other studies were conducted to investigate whether there is any similarity in students' CDMS characteristics across cultures. These include a study by Hafstrom et al. (1992) which investigated the CDMS of young Korean students to discover if they were similar to their US counterparts. These researchers observed the generality of several CDMS of young US and Korean consumers. This may mean that the CSI has elements of construct validity and usage potential regarding youths across nations. On the same theme of CSI trends in students across nations, Mitchell and Bates (1998) examined the generalisabity of Sproles and Kendall (1986) CSI. They observed that most of the original US students' CSI traits were also found in their UK counterparts, with an addition of two new factors: store-loyalty and time-energy saving traits.

The study also revealed that the CSI is sensitive enough and able to assess cultural differences among student samples, and can produce sensible results. Durvasula et al. (1993) found that similarities outweighed the differences between Tanzania and US students. These findings have provided general support for the CSI among students. Lysonski et al. (1996) investigated students' CSI profiles in four diverse countries (US, NZ, IN and GR), and found seven factors out of eight were confirmed. However, these researchers believed the CSI requires additional psychometric work before it can be applied to other countries, mainly in less developed such ones, which would include Tanzania.

Further, Fan and Xio (1998) examined dimensions and profiles of Chinese students' CDMS, compared to their American and Korean counterparts. Their findings showed that CDMS are similar in these three countries, but the maturity of the consumer market may have been influenced by the differences in CDMS. This could be why only five factors were confirmed in this study. These findings are an additional indicator

that examining the CSI in one multi-country sample with different social, economic, and cultural backgrounds can be tricky with regard to CSI instrument testing.

Bakewell and Mitchell (2004) explored decision-making styles of Generation-Y female-student consumers in the UK established that shoppers change as a function of their generational membership, due to macro-environmental influences; and as a result, five decision-making groups emerged. Three years later, Bakewell and Mitchell (2006) explored male and female students' CDMS in the same country (UK). The results were that all eight factors of the original US CSI were confirmed as largely female decision-making traits. This could be a good sign that CSI acceptance is gaining momentum beyond American borders.

Moreover, Solka et al. (2011) examined gender and culture as predictors of students' CDMS from Poland and the US. The researchers found that four out of five shopping characteristics were different between Poland and young US consumers. These include enjoyment, shopping aversion, price consciousness, and quality consciousness. They also noted that three out of five shopping characteristics differ between genders: enjoyment, shopping aversion, and brand consciousness. These findings suggest that despite the growing acceptance of the CSI among students in different countries, some cultures have not fully embraced it. Regarding the Asian context, Mokhlis and Salleh (2009) explored Malay young adults' CDMS and found general support for the CSI, which signals the acceptability of the CSI among eastern and Asian cultures.

In examining variations in CDMS characteristics of student consumers within a country, Zhou et al. (2010) examined the variations between coastal and inland China student consumers. The findings indicate that the two regions are similar in utilitarian shopping styles, but differ in hedonistic shopping styles. It also revealed that China is a heterogeneous, rather than a homogeneous market as most people would have thought.

Further, Kamaruddin and Mokhlis (2003) investigated how the process of consumer socialisation determines adolescents' CDMS. Significant relationships were found between social-structural factors and the socialisation process. The study also found that the influence of socialisation agents on adolescents may vary according to certain demographic characteristics which were not identified in this study. However, these researchers did not identify those demographic characteristics; hence the need for further research in the area.

In summary, it seems that most student consumers have similar CDMS despite differences in their social, economic, and cultural backgrounds. It is plausible that these students have greater exposure to the influences of globalisation in their quest for knowledge, which in turn may shape their decision-making styles in a certain direction depending on the product or service in question. Nonetheless, less is known about the CSI in relation to students from African developing countries.

Table 2.17 CSI trends among student consumers

No.	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic	Price-Value Conscious	Impulsiveness	Confused by Over-choice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	US	(Sproles & Kendall, 1986)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2	US	(Sproles & Sproles, 1990)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3	KR US	(Hafstrom et al., 1992)	✓	✓	x	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●	●
4	NZ	(Durvasula et al., 1993)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5	GR IN NZ US	(Lysonski et al., 1996)	✓	✓	✓	✓	x	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
6	CN	(Fan & Xio, 1998)	x	✓	x	x	x	x	x	x	✓	●	●	●	✓	●	✓	●	●	✓	●	●	●	●	●	●	●	●
7	UK	(Mitchell & Bates, 1998)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	●	✓	●	●	●	●	●	●	●	●	●
8	UK	(Bakewell & Mitchell, 2004)	x	✓	✓	x	x	x	✓	x	●	●	●	●	●	✓	●	x	x	●	●	x	●	●	●	●	●	●
9	UK	(Bakewell & Mitchell, 2006)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	x	x	●	●	●	✓	●	✓	✓	●	●
10	MY	(Mokhlis & Salleh, 2009)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	x	✓	●	●	●	●	x	●	●	●	●	●	●	●
11	CN	(Zhou et al., 2010)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
12	PL US	(Solka et al., 2011)	x	✓	x	x	✓	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●
13	TW US	(Chen et al., 2012)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Sr. No.	Country	Reference	Study Objective	Instrument	Analysis	Sample	Results-Conclusion
1	US	(Sproles & Kendall, 1986)	method for measuring characteristics of CDMS	8-factor, 40 items, 5-point Likert scale	The principal component method with varimax rotation of factors, communality estimates of 1.0. A constrained 8-factor solution was extracted to test the 8 characteristics model	501 US high school students	CSI is useful for consumer-interest professionals. Further application and validation of the CSI across the population is encouraged. 8 factors of 40 items
2	US	(Sproles & Sproles, 1990)	To explore the relationships between individuals' learning styles and their CDMS	Sproles and Kendall (1986)	Sproles and Kendall (1986)	501 US high school students	Found statistically significant relationships between learning and decision-making characteristics

3	KR	(Hafstrom et al., 1992)	To identify CDMS of young Koreans and find if they are similar to those of US consumer	CSI, 44 items, 5-point Likert scale	Factor analysis, principal component method varimax rotation, 8-factor solution (for comparison)	310 college students in Korea	The observed generality of several CDMS of young US and Korean consumers. CSI has elements of construct validity and usage potential across nations
4	NZ	(Durvasula et al., 1993)	To test the generalisability of CSI in Tanzania	Sproles and Kendall (1986).	Sproles and Kendall (1986).	210 undergrad students	Similarities outweigh the differences hence provided general support for CSI
5	GR, IN, NZ US	(Lysonski et al., 1996)	To investigate the Consumers decision-making profiles of four diverse countries	CSI, 40 items, 5-point scale	Same method as Sproles & Kendall's (1986)	486 Undergrads (95 GR, 73 IN, 210 NZ, 108 USA)	Confirmed 7 factors out of 8 with 34 items. CSI requires additional psychometric work before it can be applied to other countries, mainly the less developed.
6	CN	(Fan & Xio, 1998)	To examine dimensions and profiles of Chinese CDMS compared to American and Korean	CSI, 7-factor, 40 items 5-point Likert scale	Same method as Sproles & Kendall's (1986)	271 undergrad. students	The consumer decision-making styles are similar in the three countries, but the maturity of the consumer market may impact the differences in CDMS. 5 factors of 31 items
7	UK	(Mitchell & Bates, 1998)	To examine the generalisabity of Sproles and Kendall's (1986) CSI in an extension work in the UK	CSI, 10-factor model 38 items 5-point Likert scale	Same method as Sproles & Kendall's (1986)	401 undergrad students	Most of the original US traits were found in the UK, the addition of new store-loyalty and time-energy saving traits. The CSI is sensitive enough and able to assess cultural differences and produce sensible results.
8	UK	(Bakewell & Mitchell, 2004)	Examine the decision making of adult female generation Y consumers	Sproles and Kendall (1986)	Sproles and Kendall (1986)	244 Female undergrad.	Shoppers change as a function of their generation membership due to macro-environmental influences and 5 decision-making groups emerged
9	UK	(Bakewell & Mitchell, 2006)	To investigate male and female CDMS	CSI, 38-items, 8-common factors, 4-male factors, 3-female factors 5- point Likert scale	Principal component analysis with an orthogonal rotation	480 non-probability sample undergrads. 18-22 years	All 8 US original CSI were confirmed and largely-female, decision-making traits. 4 traits were of which 3 differ between genders.
10	MY	(Mokhlis & Salleh, 2009)	To investigate the CDMS of Malay young-adults	CSI, 8-factor, 40 items, 5- point Likert scale	Factor analysis with principal component method was conducted on decision-making style scale items	419 undergraduate students	general support to CSI
11	CN	(Zhou et al., 2010)	to develop a better understanding of the variations in CDMS between coastal and inland students	7-point Likert scale, 39 items	Correlation and a multi-group confirmatory factor analysis to assess the measurement invariance between the two groups	Coastal- 195. Inland- 245	consumers in the two regions are similar in utilitarian shopping styles and differ in hedonic shopping styles. China is heterogeneous rather than homogeneous market
12	PL, US	(Solka et al., 2011)	To examine gender and culture as predictors of CDMS.	CSI, 5-factor, 41 items, 5- point Likert scale	principal component factor analysis"	188 Polish students and 208 Americans	Found 4 out of 5 shopping characteristics to be different between Poland and the US (enjoyment, shopping aversion, price consciousness and quality consciousness) and 3 out 5 differ between genders (enjoyment, shopping aversion and brand consciousness).
13	TW, US	(Chen et al., 2012)	To examine CDMS scores of two cultures (Taiwan and US) to understand better their preferences	CSI, 8-factor, 40 items, 5- point Likert scale	correlational analyses, Hotelling's T-Squares, factorial MANOVAs (univariate tests and post hoc tests were deem appropriate)	Undergrad students: 159 Taiwanese, 151 Americans	Consumers from different cultures differ in decision-making styles. Understanding the different CDMS can help in identifying suitable sales, marketing, and

							distribution competitive advantages.
Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered.							

2.6.7 CSI trends in general public samples

After the criticism that the CSI was student-biased, CSI researchers started investigating the instrument in relation to the general public (see Table 2.18). Hiu et al. (2001) pioneered this approach by investigating Chinese CDMS and found that five among the eight CSI factors were valid and reliable in a Chinese general public consumers segment. These factors were: perfectionism, novelty-fashion consciousness, recreational/hedonistic consumer, price consciousness, and confusion by over-choice.

Wang et al. (2004) investigated the relationship between the Chinese CSI and the Chinese general public's choice between domestic and imported clothing brands. It was found that there is general support for the usefulness of the purified CSI in understanding Chinese CDMS in relation to consumers' preferences for domestic or imported clothing brands. In addition, Tai (2005) furthered CSI research in China by incorporating two parts of the country: mainland China and Hong Kong. The objective of the research was to create a CDMS typology of working female consumers aged between 18 and 44 in Shanghai and Hong Kong. The study identified ten CDMS relevant to Chinese working females, four being new non-CSI dimensions: personal style consciousness, environment and health consciousness, reliance on mass media, and convenience and time consciousness. This means there is some sort of support of the CSI, among general, public consumers. It also means that the original CSI is not comprehensive enough, hence resulting in the addition of these new factors.

Walsh, Thurau, et al. (2001), tested the generalisability of CDMS in different countries, focusing on non-student German shoppers. The study supported six factors only. Three years later, in the same country, Mitchell and Walsh (2004) examined the validity of the CSI to measure CDMS of German male and female consumers. Five new male factors were identified: satisfying, enjoyment-variety seeking, fashion-sale seeking, time-restricted, and economy seeking. The researchers concluded that the CSI has construct validity for female consumers, but not for males. Several reasons can be drawn from this: that CDMS characteristics of consumers in Germany may differ between genders and that Germans are quite different from their counterparts from other western countries. This is because the first study only supported six factors and the second resulted in five new factors for male Germany customers. This raises the need for understanding what the essence of dissimilarity with other cultures on the part of male Germans, and similarity with other cultures on the part of female Germans.

In another European nation, Sinkovics et al. (2010) examined and compared CDMS in Austria with previous CSI studies in other countries (replica for generalisation). They tested the CSI's explanatory power in a sample drawn from the general public other than students. The results were highly congruent with findings from earlier studies that used student samples. This shows that despite Austria and Germany being geographically close to each other, with significant cultural similarities, they still have different CDMS characteristics. This may mean that despite significant similarities between countries there are still noteworthy differences in their CDMS. In America, Wesley et al. (2006) assessed the relationship between

CDMS and shopping mall behaviour. Empirical research supports CDMS existence among adult shoppers in different shopping contexts. It can be inferred that, to a certain extent, the CSI can be confirmed by both the student population as well as the general public.

Although there is an on-going discussion about the generalizability of the exact CSI scale across countries, in this research for the sake of completeness, I choose to use the full version (instead of a reduced version) of the CSI scale to test its validity across Tanzania and New Zealand. Moreover, as there were virtually no validation of this scale in developing countries, it is crucial that the full potential of this scale is tested.

Table 2.18 CSI trends in general public samples

Sr. No.	Country	Reference	Study Objective	Sample	Instrument	Analysis	Results-Conclusion
1	CN	(Hiu et al., 2001)	To investigate Chinese CDMS	381 adult consumers in China	Sproles and Kendall (1986). Double analysis method, 8-factor model of 40 items 5- point Likert scale	Exploratory and confirmatory factor analysis. Cluster analysis for determining market segment in the future	Five CDMS are valid and reliable in Chinese culture (perfectionist, novelty-fashion conscious, recreational, price conscious, and confused by overchoice. 7 factors and 5 market segments derived
2	DE	(Walsh, Thurau, et al., 2001)	To test the generalizability of CDMS in different countries and with non-student German shoppers	455 German male and female shoppers (eighteen and older)	Sproles and Kendall (1986)	Sproles and Kendall (1986)	supported six factors only
3	MY	(Kamarudd in & Mokhlis, 2003)	To investigate how the process of consumer socialisation will determine adolescents' decision-making styles	934 Chinese, Malays, and Indians adolescents	Sproles and Kendall (1986)	Sproles and Kendall (1986)	Significant relationships were found between social structural factors and socialisation process, suggesting that the influence of socialisation agents on adolescents may vary according to certain demographic characteristics
4	DE	(Mitchell & Walsh, 2004)	To examine the validity of an instrument designed to measure CDMS of German male and female consumers	358 German shoppers	Sproles and Kendall (1986) 4 common factors model of 22 items, 5 Male factors of 19 items, 5- Female factors of 17 items	Exploratory principal component method with varimax rotation of factors	Five new male factors (satisfying, enjoyment-variety seeking, fashion-sale seeking, time restricted and economy seeking). CSI has constructed validity for females, but not males.
5	CN	(Wang et al., 2004)	To investigate the relationship between Chinese CSI and their choice between domestic and imported clothing brands	431 adult Chinese in Guangzhou	Sproles and Kendall (1986), 7-factor, 18-items, 5- point Likert scale	Began with the multivariate analysis of variance (MANOVA), followed by canonical discriminant analysis	General support for the usefulness of purified CSI in understanding Chinese CDMS in relationship to consumers' preference for domestic or imported clothing brands.
6	CN	(Tai, 2005)	To create a typology of the shopping style dimensions of working female consumers aged 18- 44 in Shanghai and Hong Kong	148 Hong Kong 126 Shanghai	Sproles and Kendall (1986)	Sproles and Kendall (1986)	Identified 10 CDMS relevant to Chinese working females and four new non-CSI dimensions (personal style consciousness, environment and health consciousness, reliance on mass media, and convenience and time consciousness)
7	US	(Wesley et al., 2006)	To assess the relationship between CDMS and shopping mall behaviour	527 adult consumers aged 18 to 85 plus	Sproles and Kendall (1986), 8-factor, 39-items, 5- point Likert scale	adopted Exploratory Data Analysis (EDA)	Empirical research supported CDMS existence among adult shoppers in different mall contexts.

							Gender is a prime antecedent associated CDMS. CDMS influence on mall shopping is indirect Perfectionist consumers are ranked high in planned mall expenditures
8	AT	(Sinkovics et al., 2010)	To examine and compare CDMS in Austria and previous CSI studies in other countries (Replica for generalisation) To test the CSI's explanatory power in a sample drawn from general public	225 Austrian consumers, from the general public	Sproles and Kendall (1986), 6-factor, 54-items, 5- point Likert scale	Descriptive analyses, Factor analysis (principal components, varimax rotation).	Results are highly congruent with findings from earlier studies using student samples.
9	AU	(Nayeem, 2012)	To investigate the relationship between individualism-collectivism and CDMS in the automobile industry.	202 adults	Sproles and Kendall (1986), 6-factor model of 33 items. 7-point Likert scale	Exploratory and confirmatory factor analysis conducted on Sproles & Kendall's (1986) CSI. Followed by MANCOVA	Individualists and collectivists differ significantly on brand consciousness and confused by overchoice; with collectivists scoring higher. No much difference on the rest factors
Key: CN-China, DE-Germany, MY-Malaysia, US-United States of America, AT-Austria, AU-Australia							

In addition to the above discussion, it seems that these CSI trends results are the outcome of some influencers like those summarised in the Table 2.19 below:

Table 2.19: CSI Trends Influencers

No.	CSI influencers		Reference	Country	Comments/ Findings
1	Culture	1	(Durvasula, Lysonski, & Andrews, 1993)	NZ	Culture affects CSI, hence different culture leads to different CSI impact on consumer decision-making
		2	(Shim, 1996)	US	The findings indicate that each ethnic group is characterised by a unique shopping approach
		3	(Lysonski, Durvasula, & Yiorgos Zotos, 1996)	GR, IN, NZ, US	Culture has a huge influence on the universality of CSI hence use it first by establishing its applicability to a specific culture
		4	(Walsh, MITCHELL, & HENNIG-THURAU, 2001)	DE	CSI in its original form cannot be directly applied in different cultures
		5	(Siu, Wang, Chang, & Hui, 2001)	CN	In order to apply CSI in various settings, more psychometric work is needed
		6	(Li, 2004)	ZA	Culture becomes an important influence of CSI
		7	(Leo, Bennett, & Härtel, 2005)	AU, SG	Culture is prevalent in consumer behaviour
		8	(Hanzaee & Aghasibeig, 2008)	IR	International marketers should use CSI with the cultural effects considerations.
		9	(Mokhlis & Salleh, 2009)	MY	Despite the cultural differences between US and Malaysia, 7 out of 8 CSI factors were validated and confirmed
		10	(Leng & Botelho, 2010)	BR, US, JP	Culture influences the variances in CSI
		11	(Sinkovics, Leelapanyalert, & Yamin, 2010)	AT	Results show that some CSI dimensions are universal while some national peculiarities also were exhibited
		12	(Solka, Jackson, & Lee, 2011)	PL	Identified culture as predictors of CSI
		13	(Nayeem, 2012)	AU	Individualists and collectivists differ on brand consciousness and confused by overchoice; with collectivists scoring higher.
		14	(Chen, Chen, & Lin, 2012)	TW, US	Consumers from different cultures differ in CSI
		15	(Mitchell & Bates, 1998)	UK	CSI is sensitive enough to differences caused by culture
2	Gender	16	(Wiedmann, Walsh, & Mitchell, 2001)	DE	Male and female market mavens in terms of demographics showed that they are closely the same
		17	(Bakewell & Mitchell, 2003)	UK	Generation Y female consumers are highly leaning towards leisure and enjoyment shopping
		18	(Mitchell & Walsh, 2004)	DE	CSI has constructed validity for females, but not males. Also, females are more impulsive in apparels buying than males
		19	(Kwan, Yeung, & Au, 2004)	CN	Women are more hedonistic than men.
		20	(Tai, 2005)	CN	Gender has influence on impact of CSI dimensions on consumer buying decision
		21	(Bakewell & Mitchell, 2006)	UK	All 8 US original CSI were confirmed on female's decision-making traits but less to males
		22	(Chyan Yang & Wu, 2006)	TW	Men are dominated with price and brand consciousness while females by perfectionism and novel-fashion consciousness
		23	(Wesley et al., 2006)	US	Gender is one of prime antecedent influencing CSI
		24	(Yang & Wu, 2007)	TW	Female Internet CSI is dominated by novel-fashion while male by brand.
		25	(Hanzaee & Aghasibeig, 2008)	IR	Male generation Y Iranian consumers exhibited Non-perfectionist, Brand Indifference CSI
		26	(Bae & Miller, 2009)	US	Gender has an influence on CSI impact differences between female and male students in terms of fashion, impulse, and brand
		27	(Solka et al., 2011)	PL	Identified gender as predictors of CSI
		28	(Kavkani, Seyedjavadain, & Saadeghvaziri, 2011)	IR	Females are more perfectionist, fashion oriented and hedonistic than men while men are more impulsive
		29	(Khare, 2012)	IN	gender moderates CSI in predicting Indian consumers' loyalty
		30	(Madahi, Sukati, Mazhari, & Rashid, 2012)	MY	In Malaysia, gender has higher influence on CSI compared to other independent variables
		31	(Anic, Rajh, & Bevanda, 2012)	BA	Men seem to be unbiased consumers while women exhibited hedonism
		32	(Chen et al., 2012)	TW, US	Male Taiwanese enjoy buying new electronics more than their female counterparts, US men and females US females enjoy buying for fun more than any of the other groups.
		33	(Potgieter, Wiese, & Strasheim, 2013)	ZA	Female gender orientation tends to influence recreational, novelty/fashion, price-conscious, confused by over-choice than male gender orientation
3	Peers, families, and Socialisation	34	(Kamaruddin & Mokhlis, 2003)	MY	Peers highly influence both desirable and undesirable CSI
		35	(Niu, 2013)	TW	Adolescent consumers are affected by peers regarding online shopping
		36	(Tahmid Nayeem & Casidy, 2013)	AU	some consumers rely on friends, peers, families, and dealers as important sources of product information
		37	(Shim & Koh, 1997)	US	socialization and social structure significantly influence adolescents' CSI
		38	(Bae & Lee, 2010)	SG	Singaporean youth purchases are affected by their parents before and during shopping

		39	(Baoku, Cuixia, & Weimin, 2010)	CN	Family population affects the CSI
		40	(Hanzaee & Lotfizadeh, 2011)	IR	Family structure impacts the CSI of Iranian consumers
4	Market maturity	41	(Fan & Xio, 1998)	CN	Maturity of the consumer market may impact the differences in CSI
5	Macro environment	42	(Bakewell & Mitchell, 2004)	UK	macro environmental factors influence the impact of CSI on consumers
6	Local Vs. Global	43	(Wickliffe, 2004)	CN	Chines CSI Is influenced by preferences between local and imported clothing brands
7	Age	44	(Wesley et al., 2006)	US	There is CSI existence among adult shoppers in different mall contexts.
		45	(Ruzane, 2012)	ZA	CSI impact changes as consumers' age evolves
		46	(Khare, 2012)	IN	Age moderates CSI in predicting Indian consumers' loyalty
		47	(Madahi et al., 2012)	MY	The effect of age on CSI decreases as age increases
		48	(Potgieter et al., 2013)	ZA	Consumers aged 41-60 years exhibit quality-conscious, the youth are price-conscious, while senior citizens are more brand-loyal
8	Product involvement	49	(Bauer, Sauer, & Becker, 2006)	DE, UK	CSI is directed by consumers' perceived product involvement.
10	Geographic location	50	(Kwan, Yeung, & Au, 2008)	CN	Chinese consumers in different locations display different CSI
		51	(Zhou et al., 2010)	CN	China is heterogeneous rather than homogeneous market
11	internet	52	(Ruzane, 2012)	ZA	The internet has impact on CSI
12	Race & ethnicity	53	(Ruzane, 2012)	ZA	Race has impact on CSI
		54	(Potgieter et al., 2013)	ZA	Ethnicity tends to influence CSI impact on consumers; for example, African consumers are more quality, recreational shoppers; novelty/fashion; brand, price, impulsive, less value-conscious and less brand-loyal than their Caucasian counterparts.
13	Religion	55	(Hanzaee & Lotfizadeh, 2011)	IR	Islamic religion has deep impact on CSI of Iranian consumers
		56	(Essoo & Dibb, 2004)	MU	Differences in Mauritius consumer CSI patterns can be attributed to religious group affiliation
14	Product brand	57	(Padmanabhan, 2012)	IN	Type of product brand may influence CSI process
15	Urbanism	58	(Madahi et al., 2012)	MY	Urbanism has influence CSI in Malaysia
16	Education	59	(Potgieter et al., 2013)	ZA	Level of education of the consumer influences the CSI orientation whereby lower educated were more brand conscious than those with post-school education; university graduate were less price-conscious, also less impulsive than those with lower qualifications
Key: AT- Austria, BR-Brazil, AU-Australia, BA-Bosnia, CN – China, DE- Germany, GR- Greece, IN -India, IR-Iran, JP-Japan, KR- Korea, MY- Malaysia, MU-Mauritius, NZ-Tanzania, PL-Poland, SG-Singapore, TR-Turkey, TW-Taiwan, UK- United Kingdom, US-United States of America, ZA-South Africa					

2. 7 Newly identified CSI factors

Since 1992, extant research has suggested 14 new CSI factors. The first new factor *time-energy conserving*, was identified by Hafstrom et al. (1992) in their Korean and US study, and confirmed to be so in the UK (Mitchell & Bates, 1998) and in a German-US investigation (Walsh, Thurau, et al., 2001), and Cowart and Goldsmith (2007). Nevertheless, this newly suggested time-energy conserving item is not consistent among these researchers, despite having the same label. Each study had its own type and number of items within this same factor (See Table 2.20). This may confuse respondents and other researchers who may need to use this factor in future studies. Also, time conserving and energy conserving may not be compatible, as they are not closely related; a person can save time but at the same time use a lot of energy, they do not necessarily save time and energy simultaneously. Therefore, these possibly should be two independent factors: time saving and energy saving respectively.

Table: 2.20 Time-energy conserving

Reference	Time-energy conserving	Consumer Styles Inventory		Remarks
(Hafstrom et al., 1992)	Factor 5. Time-Energy conserving consumer			Time conserving and energy conserving cannot be put together as they are not closely related. It is not necessarily true that whenever one saves time they save energy as well. One can save time but at the same time use a lot of energy and vice versa. Therefore, there should be two independent factors; time saving and energy saving respectively.
	A brand recommended in a consumer magazine is an excellent choice for me			This item is more related to brand consciousness and brand loyalty dimensions
	I go to the same stores each time I shop	39	I go to the same stores each time I shop	Can't it be store loyalty? Brand loyalty? As consumers can go to the same store each time and still spend more time in the same store.
	I usually compare advertisements to buy fashionable products			Comparing does not save time. One can take even longer to conduct a comparison of the alternatives especially when there are many of them.
Mitchell and Bates (1998)	Factor 5 Time-Energy Conserving			
	I really don't give my purchases much thought or care.	5	I really don't give my purchases much thought or care	This item could be more suitable for the perfectionist, or impulsive purchase factor than this one (i.e. time-energy conserving).
	I normally shop quickly, buying the first product I find that seems good enough	7	I shop quickly, buying the first product or brand I find that seems good enough	This question is problematic as it is a double-barrelled question asking two things at once (i.e. shopping quickly and good enough quality). Therefore, the first part of the question should be put as time. Both the original CSI (i.e. CSI item no. 7) and this one have this problem
	I spend a little time deciding on the products and brands I buy.			This item could be a right fit for this factor (time-saving/ but not for energy conserving)
	Shopping in different stores is a waste of time.			This item is ambiguous as it does not indicate whether it is shopping for different products from different stores or one product from different stores? Hence, respondents can be misled in responding to a question of this nature
	I should spend more time deciding on the products I buy.			This item could be a right fit for this factor regarding time-saving, but not for energy conserving
(Mitchell & Walsh, 2004)	Factor 4: Time-energy conserving			
	I shop quickly, buying the first product or brand I find that seems good enough.	7	I shop quickly, buying the first product or brand I find that seems good enough	This question is problematic as it is a double-barrelled question asking two things at once (i.e. shopping quickly and good enough quality). Therefore, the first part of the question should be put as time. Both the original CSI (i.e. CSI item no. 7) and this one have this problem
	I really don't give my purchases much thought or care.	5	I really don't give my purchases much thought or care	This item could be more suitable for the perfectionist, or impulsive purchase factors than this one (i.e. time-energy conserving).

	I make my shopping trips fast.	24	I make my shopping trips fast	This item is suitable for the time conserving factor. However, it seems that the item reflects the item above (i.e. I shop quickly, buying the first product or brand I find that seems good enough) in the same factor category, which means it is a repetition of the same thing in different words, hence respondent confusion and poor results for the scale factor.
KEY: This colour block represents items not considered in the original CSI				

In addition, two other studies came up with a very similar factor related to time-energy conserving. These are *time conscious* and *time restricted* factors, introduced respectively by Fan and Xio (1998) and Mitchell and Walsh (2004). Nevertheless, these factors seem to be an unnecessary duplication of the above time-conserving factor. Likewise, the contents (items) of these newly suggested factors do not reflect the name of the factor. For example, both of these factors indicated that "I am impulsive when purchasing." This item does not fit under the time-conscious or time-restricted factor. There is no match between the factor title and its content items (see Tables 2.21 and 2.22).

Table 2.21 Time conscious

Reference	Time conscious	Consumer Styles Inventory		Remarks
Fan, and Xio (1998).	Factor 2: Time consciousness			The items that do not reflect time consciousness to the respondents should be removed as they are not valid for the factor
	I take the time to shop carefully for best buys	31	I take the time to shop carefully for best buys	Suitable for this factor
	I enjoy shopping just for the fun of it	23	I enjoy shopping just for the fun of it	Suitable for recreational factor
	I keep my wardrobe up-to-date with changing fashions	16	I keep my wardrobe up-to-date with the changing fashions	This item suits fashion-conscious factor
	Shopping the stores waste my time (-)	22	Shopping the stores wastes my time	This item is suitable for this factor
	I cannot choose products by myself (-)	33	There are so many brands to choose from that often I feel confused	This item fits the confused by over-choice factor
	I make my shopping trips fast (-)	24	I make my shopping trips fast	This item is suitable for this factor
	I am impulsive when purchasing	29	I am impulsive when purchasing	This item suits impulsive factor
KEY: This colour block represents items not considered in the original CSI				

Table 2.22 Time restricted

Reference	Time restricted	Consumer Styles Inventory		Remarks
Mitchell & Walsh. 2004.	Factor 4: Time restricted			This factor seems to be a duplicate of some of the items in the above time-conscious factor. It also includes some items that are not a suitable fit with the factor
	A product doesn't have to be perfect, or the best, to satisfy me.	8	A product doesn't have to be perfect, or the best, to satisfy me	Quality-conscious factor item
	I am impulsive when purchasing.	29	I am impulsive when purchasing	For impulsive factor
	I take the time to shop carefully for the best buys.	31	I take the time to shop carefully for best buys	A duplicate from the above time-conscious factor
	I buy as much as possible at the sale price.	25	I buy as much as possible at sale price	For price-conscious factor
KEY: This colour block represents items not considered in the original CSI				

The fourth factor was *quality conscious*, (Fan & Xio, 1998) was among the four new factors explored in their Chinese study. The other factors were price conscious, time conscious, and information utilisation. Quality conscious, was also identified in German (Mitchell & Walsh, 2004), and in Poland-US contexts (Solka et al., 2011). Further, it can be observed that the studies that support this new factor do not support the original factor of perfectionism, with the exception of Mitchell and Walsh's (2004) study, which supported both perfectionism and quality-consciousness factors.

Perfectionism features are based on quality orientation, therefore the latter factor may be a duplication of perfectionism, under a different name, as shown in Table 2.23. Besides, the problem of heading-item mismatch appears to be prevalent in most of the new factors. This may cast a shadow of doubt on the criteria for assigning items to a certain factor dimension or category, as well as the methodological approach that resulted in the given factor. This is not to say that the original CSI scale is perfect; it may also need some adjustments. Some of the new suggestions are valid, like the one suggested by Mitchell and Walsh (2004) stating that "nice department and speciality stores offer me the best products," which is a good fit with the quality-consciousness factor.

Table 2.23 Quality Conscious

Reference	Quality Conscious	Consumer Styles Inventory		Remarks
Fan, and Xio (1998)	Factor 3: Quality consciousness			This new factor seems to have a lot in common with the perfectionist factor of the original CSI. However, it has additional items, but they seem to be unrelated to quality consciousness as indicated below. Should the perfectionist factor in the original CSI be changed into quality consciousness and remain only with the elements that reflect quality consciousness? This will need more discussion.
	My standards and expectations for products I buy are very high	6	My standards and expectations for products I buy are very high	Reflects the original CSI perfectionist factor element.
	I make special effort to choose the very best quality products	4	I make special effort to choose the very best quality products	Reflects the original CSI perfectionist factor element.
	I usually buy well-known, national, or designer brands	9	The well-known national brands are best for me	Is well-known, national, or designer brand reflective of quality? There are several brands well-known for their poor quality. This fits in the brand consciousness factor
	When it comes to purchasing products, I try to get the very best or perfect choice	2	When it comes to purchasing products, I try to get the very best or perfect choice	Reflects the original CSI perfectionist factor element.
	It is fun to buy something new and exciting	19	It's fun to buy something new and exciting	Does buying something new and exciting reflect quality? This item may not be relevant for this new factor
	I should plan my shopping more carefully than I do	28	I should plan my shopping more carefully than I do	Reflects the original CSI perfectionist or impulsive factor elements.
Mitchell & Walsh. 2004.	Factor 3: Quality consciousness			
	The most advertised brands are usually very good choices.	14	The most advertised brands are usually very good choices	This item seems to reflect brand consciousness and not quality consciousness factor
	The lower price products are usually my choice.	26	The lower price products are usually my choice	This item is suitable for the price-conscious factor, not for quality consciousness. Quality reflects strengths, performance, and durability. Price has very limited influence on reflecting the quality of a product due to the presence taxes and tariffs, production costs, subsidies, price syndicates and cartels, stimulus packages, as well as inflation and monetary policies.
	Nice department and speciality stores offer me the best products.			This item fits this new factor

	To get variety, I shop in different stores and choose different brands	18	To get variety, I shop in different stores and choose different brands	This item reflects the novelty-fashion consciousness factor or brand consciousness.
Solka, Jackson, and Lee (2011)	Factor five, quality conscious, measures consumers' orientation towards quality. The items in this factor include			
	choosing the best quality products			The item has low reliability
	paying a higher price to get good quality			The item has low reliability
KEY	This colour block represents items not considered in the original CSI			

The fifth suggested factor was *price conscious*, as proposed by Fan and Xio (1998) and later adopted by Hiu et al. (2001); Kasper et al. (2010); and Solka et al. (2011). Despite this, most of the items in this new price-conscious factor reflect the price and "value for money" shopping consciousness of the original CSI scale. Fan and Xio (1998) developed an item that appears to fit into the factor called "I consider price first" (Table 2.24) below. Furthermore, Mitchell and Walsh (2004) recommend a new, sixth factor called *economy seeking.* However, items in this factor look like duplicates of those in the price-conscious factor as per Table 2.25. Therefore, this factor may be deleted.

Table 2. 24 Price Conscious

Reference	Price Conscious	Consumer Styles Inventory		Remarks
Fan, and Xio (1998).	Factor 4: Price Consciousness:			
	I carefully watch how much I spend	32	I carefully watch how much I spend	This item reflects the price and "value for money" shopping consciousness of the original CSI scale
	I consider price first			This item fits with this factor
	The lower price products are always my choice	26	The lower price products are usually my choice	
	I usually buy well-known, national, or design brands	9	The well-known national brands are best for me	This item does not reflect price consciousness. It can be useful for brand consciousness factor
Hiu, Siu, Wang, and Chang (2001),	Factor 5: Price-conscious consumer			
	Look for best value	27	I look carefully to find the best value for the money	It reflects the price and "value for money" shopping consciousness factor
	Take time to shop			This item does not fit in this factor. It may have a good fit with the time-conscious factor
	Watch how much I spend	32	I carefully watch how much I spend	
Kasper, Bloemer, and Driessen (2010).	Price conscious			
	The lower price products are usually my choice	26	The lower price products are usually my choice	These low prices seeking factor items are from the price conscious/value for money consumer in the original CSI scale.
	I buy as much as possible at sale prices	25	I buy as much as possible at sale prices	
Solka, Jackson, and Lee (2011)	Factor three, price consciousness, measures consumers' willingness to purchase merchandise based on price			This study was qualitative based data, hence difference in methodology of data collection, which may lead to difference in results

Table 2.25 Economy seeking

Reference	Economy seeking	Consumer Styles Inventory		Remarks
Mitchell & Walsh. 2004.	Factor 5: Economy seeking			The items in this factor seem to be a duplication of the price-conscious factor items; hence there is no need to have duplication with a different factor title heading. Therefore, this factor may be deleted
	The lower price products are usually my choice.	26	The lower price products are usually my choice	
	My standards and expectations for products I buy are very high.	6	My standards and expectations for products I buy are very high	
KEY: This colour block represents items not considered in the original CSI				

The seventh newly recommended factor named *variety seeking* was suggested by Walsh, Thurau, et al. (2001), then adopted by Mitchell and Walsh (2004) in their German study. The factor was also adopted by Kasper et al. (2010) in their Netherlands study. Although this factor appears to overlap with the novelty-fashion consciousness of the original CSI, most of its items show a good fit within it. Also, it has been observed that some items may be appropriate for testing more than one factor. For example, an item named "I go to the same stores each time I shop" may be used for testing variety seeking, as well as for the brand-loyalty factor. The other item named "I go to the same stores each time I shop" may be used for testing variety seeking as well as the brand loyalty factor, as summarised in Table 2.26 below.

Table. 2.26 Variety Seeking

Reference	Variety Seeking	Sproles and Kendall		Remarks
Walsh, Mitchell, and Thurau (2001)	Factor 7: Variety seeking			This factor overlaps with the CSI original factor of novelty-fashion consciousness. Therefore, the original novelty-fashion consciousness may remain with items for fashion consciousness; and this factor to be a novelty and variety seeking factor containing only the items that identify with the factor
	I change brands I buy regularly	40	I change brands I buy regularly	This item can be a good fit with this factor
	Once I find a product or brand I like, I stick with it	38	Once I find a product or brand I like, I stick with it	This item can be a good fit with this factor
	To get variety, I shop in different stores and choose different brands	18	To get variety, I shop in different stores and choose different brands	This item can be a good fit with this factor
	Nice department and speciality stores offer me the best products	12	Nice department and specialty stores offer me the best products	This item may be suitable for the quality-conscious factor
Mitchell & Walsh. 2004.	Factor 5F: Variety seeking			
	I go to the same stores each time I shop.	39	I go to the same stores each time I shop	This item may be used for variety seeking even though it fits well with the brand loyalty factor. The reason for this is that if the respondent replies negatively to this item it means they are variety seeking oriented.
	I change brands I buy regularly	40	I change brands I buy regularly	This item is related to variety seeking
Kasper, Bloemer, and Driessen (2010).	Variety seeking			
	I change providers regularly	40	I change brands I buy regularly	This item is related to variety seeking
	Once I find a provider I like, I stick with them			This item may fit better the store loyalty
	I have one favorite provider I choose over and over (R)			This item may be used for variety seeking even though it fits well with the store loyalty factor. The reason for this is that if the respondent replies negatively to this item it means they are variety seeking oriented.
	To get variety, I always choose a different provider			This item fits the variety seeking factor
	Often, I later wish I had not chosen that particular provider	30	Often, I make careless purchases I later wish I had not	This item fits the impulsive factor and not variety seeking factor
KEY: This colour block represents items not considered in the original CSI				

Closely related to the "variety seeking" factor is the eighth newly suggested factor named *enjoyment-variety seeking*, as proposed by Mitchell and Walsh (2004). However, this factor looks like a duplication of the recreational and variety-seeking factors as shown in Table 2.27 below. Also, enjoyment and variety seeking may not go well together because it is not necessarily true that a consumer who seeks variety also experiences enjoyment. It has been observed that some of the items proposed by these researchers are suitable for other factors rather than this one.

Table 2.27. Enjoyment-Variety Seeking

Reference	Enjoyment-Variety Seeking	Sproles and Kendall		Remarks
Mitchell & Walsh. 2004.	Factor 2: Enjoyment-variety seeking			A duplication of recreational and variety seeking factors as shown in tables above. Also, enjoyment and variety seeking do not go well together because it is not necessarily true that a consumer who seeks variety also experiences enjoyment.
	It's fun to buy something new and exciting.	19	It's fun to buy something new and exciting	
	To get variety, I shop in different stores and choose different brands.	18	To get variety, I shop in different stores and choose different brands	
	Going shopping is one of the enjoyable activities of my life.	21	Going shopping is one of the enjoyable activities of my life	
	I am impulsive when purchasing.	29	I am impulsive when purchasing	Suitable for impulsive factor
	Shopping in many stores wastes my time.	22	Shopping the stores wastes my time	Suitable for time-conscious factor
KEY: This colour block represents items not considered in the original CSI				

The ninth new proposed factor, *recreational, hedonistic consciousness* was introduced by Hiu et al. (2001), and used by Kasper et al. (2010). Hiu et al. (2001) eliminated two items from the recreational-hedonistic consumer-consciousness factor from the original CSI scale (these items are: "Shopping at the stores wastes my time" and "I make my shopping trips fast"). This decision seems to be appropriate since the eliminated factors have a limited match with the recreational-hedonistic buying factor. On the other hand, Kasper et al. (2010) eliminated three items from the original recreational-hedonistic factor, one more than the previous study (these include: "Shopping at the stores wastes my time," "I enjoy shopping just for the fun of it," and "I make my shopping trips fast"). However, eliminating the item "I enjoy shopping just for the fun of it" for this factor seems unfeasible because shopping for fun is part of recreation. Also, there seems to be an overlap among the following three factors: recreational/hedonistic, variety seeking, and novelty-seeking.

One good thing though is that researchers from this study made the scale product-specific, which is a suitable thing to do when one is studying a specific product in a specific market. This feature helps marketers to understand CDMS of specific consumers for a specific product or service. However, some items that Kasper et al. (2010) adopted looks like they are asking for the same thing, while other items appear to be suitable for other factors, as demonstrated in the Table 2.28 below.

Table 2.28 Recreational, hedonistic conscious

Reference	Recreational, hedonistic conscious	Sproles and Kendall		Remarks
Hiu, Siu, Wang, and Chang (2001),	Factor 4: Recreational, Hedonistic consumer			This factor eliminated two items from the original CSI factor of recreational, hedonistic consciousness (these items are: shopping the stores wastes my time and I make my shopping trips fast) which seem to be appropriate as these eliminated factors do not match with recreational, hedonistic buying
	Shopping is not a pleasant activity	20	Shopping is not a pleasant activity to me	
	Shopping is enjoyable	21	Going shopping is one of the enjoyable activities of my life	
	Shop for fun	23	I enjoy shopping just for the fun of it	
Kasper, Bloemer, and Driessen (2010).	Recreational, hedonistic			This factor eliminated three items from the original recreational, hedonistic factor (these include: shopping the stores wastes my time, I enjoy shopping just for the fun of it, I make my shopping trips fast). However, eliminating the item "I enjoy shopping just for the fun of it" for this factor seem unfeasible. Also, there seems to be an overlap among the following three factors: recreational hedonistic, variety seeking, and novelty seeking. Researchers in this study have made the scale product specific, which is good when studying a specific product in a specific market, hence helping marketers to understand CDMS of specific consumers for a specific product or service.
	It's fun and exciting to buy a new mobile phone plus contract	19	It's fun to buy something new and exciting	
	Buying a mobile phone plus contract is not a pleasant activity to me (R)	20	Shopping is not a pleasant activity to me	
	I enjoy buying a mobile phone plus contract			These two items seem to be asking the same thing
	Buying a mobile phone plus contract is one of the enjoyable activities in life	21	Going shopping is one of the enjoyable activities of my life	
	To get variety, I always buy different mobile phones	18	To get variety, I shop different stores and choose different brands	This item may be suitable for the variety seeking factor.
KEY: This colour block represents items not considered in the original CSI				

The tenth proposed new factor, *Information utilisation* was identified by Fan and Xio (1998). The intention of this factor was to treat information utilisation independently of the confusion from over-choice factor. This suggestion seems to be appropriate because it helps to understand the items on information more easily and effectively. Despite having items that look like they fit other factors, the information utilisation factor has items that reflect it well, as per Table 2.29 below.

Table 2.29 Information Utilization

Reference	Factor 5: information utilization	Sproles and Kendall		Remarks
				Treating information independently from confusion from over-choice seem to be appropriate which helps to understand the impact of each item on the appropriate factor
Fan, and Xio (1998).	All the information I get on different products confuses me	36	All the information I get on different products confuses me	Suitable for this factor
	There are too many brands to choose from so that often I feel confused	33	There are so many brands to choose from that often I feel confused	For brand consciousness
	Often, I made careless purchases I later wish I had not	30	Often, I make careless purchases I later wish I had not	For impulsive factor

The eleventh new proposed factor is *brand loyal* (See Table 2.30) proposed by Mitchell and Bates (1998) and used by Yang and Wu (2007). From observation, this factor appears to be a duplication of two items of the habitual, brand-loyal orientation consumer factor in the original CSI scale (1986). Also one of the items from the original brand loyalty factor, which seems to fit this factor, was not included in this new factor (i.e. "I change brands I buy regularly").

The twelfth newly proposed factor, *store loyal*, by the same researchers Mitchell and Bates (1998), is one of the commendable factors (see Table 2.30). This is because the existence of this factor will allow it to become independent from the brand loyal factor. This gives the impression that it is a suitable item because it is not necessarily true that a consumer who is loyal to the brand will also be loyal to the store as well and vice-versa. Therefore, making them independent factors will help in the process of better understanding CDMS regarding store loyalty as well as brand loyalty. Also, this factor seems to have suitable items in it, as well as those which do not reflect it well.

Table 2.30 Brand loyal

Reference	Brand loyal	Sproles and Kendall		Remarks
Yang and Wu (2007)	Factor 5: Brand loyal			This factor seems to be a duplication of two items of the habitual, brand-loyal orientation consumer factor in the original CSI scale. Also, one of the items from the original brand loyalty factor, which seem to fit this factor was not included in this new factor (i.e. I change brands I buy regularly).
	I have favourite brands I buy (brand-loyal) over and over.	37	I have favourite brands I buy over and over	
	Once I find a product or brand I like, I stick with it.	38	Once I find a product or brand I like, I stick with it	
Mitchell and Bates (1998)	Factor 10 Brand Loyalty			
	Once I find a product I like, I buy it regularly.	38	Once I find a product or brand I like, I stick with it	
	I have favourite brands I buy every time.	37	I have favourite brands I buy over and over	

Table 2.31 Store Loyal

Reference	Store loyal	Sproles and Kendall		Remarks
Mitchell and Bates (1998)	Factor 9 Store Loyalty			Development of this factor for it to become independent from brand loyal factor seems to be suitable because it is not necessarily true that a consumer who is loyal to the brand will also be loyal to the store and vice-versa. Therefore, making them independent factors will help in better understanding CDMS regarding store loyal as well as brand loyal.
	I go to the same stores each time I shop.	39	I go to the same stores each time I shop	Suitable items for the store loyal factor
	To get the variety I shop in different stores and buy different brands.	18	To get variety, I shop in different stores and choose different brands	
	Shopping in different stores is a waste of time.	22	Shopping the stores wastes my time	This item can also be used in time-conscious factor
KEY	This colour block represents items not considered in the original CSI			

The thirteenth suggested new factor *satisfying,* was proposed by Mitchell and Walsh (2004). but has not received support since its proposal in 2004. Moreover, "satisfying" should not be treated as a factor because satisfaction is the ultimate goal of every consumer; they need to be satisfied with their buying and consumption decisions. Also, consumers are satisfied with different things that influence their buying decisions. For example, some consumers are satisfied with the good price, brand, quality, or variety. Therefore, this factor may not be considered in the case of CSI improvement. In addition, some of the items in this factor are just duplications from the recreational-hedonistic factor; hence there is nothing new with regards to its items (see Table 2.32).

Table 2.32 Satisfying

Reference	Satisfying Seeking	Sproles and Kendall		Remarks
Mitchell & Walsh. 2004.	Male factors:			Satisfying should not be treated as a factor because it is the ultimate goal of every customer to be satisfied with his or her buying and consumption decisions. Also, consumers are satisfied with different things that influence their buying decisions. For example, some are satisfied with the price, brand, quality, or variety. Therefore, this factor may not be considered in the case of CSI improvement. In addition, some of the items in this factor are just a duplication from the recreational-hedonistic factor
	Factor 1: Satisfying			
	I really don't give my purchases much thought or care.	5	I really don't give my purchases much thought or care	
	I shop quickly, buying the first product or brand I find that seems good enough.	7	I shop quickly, buying the first product or brand I find that seems good enough	
	Shopping is not a pleasant activity to me.	20	Shopping is not a pleasant activity to me	
	I make my shopping trips fast.	24	I make my shopping trips fast	
	I take the time to shop carefully for the best buys.	31	I take the time to shop carefully for best buys	
	Going shopping is one of the enjoyable activities of my life.	21	Going shopping is one of the enjoyable activities of my life	

The final proposed new factor is *fashion-sale seeking* (See Table 2.33). This factor was also recommended by Mitchell and Walsh (2004). It is observed that sale seeking belongs to price consciousness and not the fashion factor. Therefore, putting it under this factor seems to be a misplaced and unnecessary duplication. Some of the elements in this factor seem to fit well with the novelty-fashion-consciousness factor because novelty and fashion go together. Also, items such as "I buy as much as possible at sale price" may be more suitable for the price-conscious factor rather than the former.

Table 2. 33 Fashion-sale seeking

Reference	Fashion-sale seeking	Sproles and Kendall		Remarks
(Mitchell & Walsh, 2004)	Factor 3: Fashion-sale seeking			Sale seeking belongs to the price consciousness factor, hence putting it here is a misplaced and unnecessary duplication
	I keep my wardrobe up to date with the changing fashions.	16	I keep my wardrobe up-to-date with the changing fashions	These items may fit well with the novelty-fashion consciousness factor because novelty and fashion go together
	I usually have one or more outfits of the very newest style.	15	I usually have one or more outfits of the very newest style	
	I buy as much as possible at the sale price.	25	I buy as much as possible at sale prices	This item is for price-conscious factor

Therefore, considering the above discussion, about six of the newly proposed additional measures within the existing factors appear to be coherent. These comprise brand loyal, store loyal, information utilisation, time conscious, quality conscious, and variety-seeking. The reason behind this is that they have shown their factual uniqueness. However, some of them will need refinement before they become fully fledged CSI factors. Some of these refinements include removing items that overlap, are misplaced, contain inconsistencies, or are duplications.

In summary, the CSI has experienced development, testing, and expansion expressed in terms of new factor development. There are a few additional factors that may be able to add value to the CSI, even though the majority of the new suggestions have exhibited overlapping, inconsistencies, misleading headings and titles, as well as duplication and misallocation of factor items. Such problems may confuse respondents, and could jeopardise future follow-up studies on these factors. Further, such problems may imply a faulty methodological approach, especially in constructing factor items for the instrument, as well as their reliability.

Neither the original CSI instrument nor the new factor suggestions are infallible because no theory or model can fit all situations. Nonetheless, there is a possibility that a certain theory, or part of it, fits in most situations. However, from the discussion above, this study will use the original instrument and the confirmed new factors only to avoid inconsistencies, duplications, overlapping, and misplacements of factor items.

Studies in the above discussion have explored the diverse and dynamic nature of CSI trends. This has allowed, to a certain extent, an understanding of the nature, background, and direction of the CSI. However, there is limited investigation on CSI trends regarding the green consumption dimension. This situation triggers a discussion on green consumption as shown in the next section below.

2.8 Green Consumption – An Emerging Trend

Green consumption research gained popularity in the mid-1990s (Chamorro, Rubio, & Miranda, 2009; Gupta & Ogden, 2009). Recent green consumption research has led to the development of different theories, models, and numerous green consumption movements (Wang & Qin, 2013; Zsóka et al., 2013), particularly on recycling, waste management, and energy-saving behaviour (Gadenne, Sharma, Kerr, & Smith, 2011; Zsóka et al., 2013)

Green consumption is understood, defined, and identified differently by different researchers, scholars, and practitioners, however, many researchers agree that green consumption focuses on socially and environmentally responsible consumption. This may involve the consumption of goods and services that are: biodegradable, recyclable, fair traded, organic, non-toxic, eco-friendly, or renewable (Autio, Heiskanen, & Heinonen, 2009; Murphy & Jenner-Leuthart, 2011; Ibok & Etuk, 2014; Trauger & Murphy, 2013; Wu & Chen, 2014). In addition, some researchers see green consumption as consumers' self-expression of their association, identity, and social status (Connolly & Prothero, 2008; Soron, 2010), as well as a "costly" way of conveying a well-off social status (Griskevicius et al. 2010). Others see green consumption as the way

consumers try to come clean from their possession of “Green Guilt”, due to their prior hazardous wasteful conspicuous consumption (Autio et al., 2009).

Furthermore, in the pursuit of a better understanding of the green consumption concept, some researchers have suggested some principles to guide green consumption practice. Some of these principles were proposed by Kates (2000) who suggested the 3R principle: reduce, reuse, and recycle. By contrast, Tseng and Tsai (2011) proposed four principles, known as the 4Rs, namely reduction, reuse, recycling, and regeneration.

Green consumption behaviour trends can be classified into two categories. The first category are consumers who increasingly use energy efficient devices, reduce their use of private vehicles, and consume less natural resources. The second category are those consumers who looking to limit their expenditure on non-green products, while increasing spending on green products. This has resulted into an increase in demand and growth of sales of organic foods upward trend amongst consumers from developed and developing countries as they are becoming more aware of health issues and environmental concerns (Dumortier, Evans, Grebitus, & Martin, 2017; Gwira Baumblatt et al., 2017). This phenomenon led to an increased trend of producers adopting eco-labelling as a growing number of consumers do respect and prefer eco labels (Bougherara & Piguet, 2009) .

Díaz Meneses and Beerli Palacio (2006) found an upward tendency that the better the income, education, economical and domestic conditions the higher the exhibition of green consumption behaviour among consumers. Also in his study Jalban, (2017) found a trend that as the individuals get older they become more conscious about the green consumption; and that females are more conscious than males to show the behaviours of environmental concern, though more recent industry reports suggest millennials are also interested in green products (Organic Trade Association, 2017)

Further, Green consumption importance has been growing among consumers, businesses, and countries. For example, consuming green products may provide perceptual emotional consumption benefits, as well as the feeling of well-being from acting in an altruistic way, and self-expressive benefits (Hartmann & Apaolaza-Ibáñez, 2008). Some countries such as New Zealand have a strong green-clean country branding, which can have a substantial impact on the tourism industry and perceptions of the country at large (Hall, 2010). Many companies have realised that going green is a sustainable strategy for image branding and positioning (Zuckermann Hirsch, 2010).

Sammer and Wüstenhagen (2006) indicated that the trend shows that consumers are increasingly willing to pay more for products with eco-labels or eco-foot-printing analysis (Sutcliffe, Hooper, & Howell, 2008) and (Young, Hwang, McDonald, & Oates, 2009). This could be an indication that consumption emphasis is towards sustainable consumption and post-consumption (Biswas & Roy, 2015).

Later trends show that “green consumption” and “green economy” have emerged as novel themes in political economy (Withanachchi, 2013). This trend has moderated consumers’ attitudes, marketing strategies, productions methods, and ethics, due to political influence on consumption decisions (Autio et al., 2009). Whitmarsh and O'Neill (2010), have shown that there is a trend towards positive spillovers in green consumption behaviour, such as when consumers adopt other environmentally friendly goods and

services. Businesses have started to practice green consumption to meet green consumers' expectations and pressure (D'Souza, Taghian, Lamb, & Peretiatko, 2007; Hartmann & Apaolaza Ibáñez, 2006). Sexton and Sexton (2011) noted the trend shows that society's previous positive perception of conspicuous and excess consumption is now viewed negatively. This indicator of change of perception towards consumption by consumers could be a good starting point towards green consumption success.

Trends in green consumption with regard to demography have shown mixed results. For example, demographically, females seem to be more pro-environmental and more prone to be initiators of green consumption than males, because they are more concerned for future generations (Autio et al., 2009). On the other hand, Grønhøj (2006) revealed that, in many households, green consumption practice is influenced by the husband.

Age-wise, Smallbone (2005) showed that recycling is mainly practiced by people aged 35 or older with higher income who are concerned about the environment. Autio et al. (2009) indicated that young consumers see themselves as "anti-heroes", rejecting green consumerism. This could be due to the fact that young consumers are criticised and seen as materialistic (O'Shaughnessy & O'Shaughnessy, 2007). However, on the other hand, some studies have shown that young consumers are socially, culturally, and environmentally conscious consumers (Sheahan 2009; Sullivan & Heitmeyer 2008), and recent US survey have suggested that millennial parents may "big buyers of organic products. Over the next ten years, we'll see a surge of new organic eaters and consumers -- the Millennial parents of tomorrow and their children" (Organic Trade Association, 2017). These contradictory findings may mean that being in the same demographic category does not necessarily mean all members of that category will behave the same towards green consumption.

The above-discussed green consumption trends are the result of the influence of many different factors. Some of these factors include the perceived quality of green products, price, information availability, and purchase context (Ritter, Borchardt, Vaccaro, Pereira, & Almeida, 2014). Other factors include: education, sex, age, income, buying pattern, and residence of the consumer (Gadenne et al., 2011; Liu et al., 2012); the role of government and suppliers (Wu & Chen, 2014); as well as consumer values, norms, and habits (Peattie, 2010).

In addition, other factors include: green consumption attitude, norms, social status and image, and behaviour (D'Souza et al., 2007; De Marez, Vyncke, Berte, Schuurman, & De Moor, 2007; and family life cycles, personality traits, attitudes, lifestyle, and the environment (D'Souza et al., 2007). Lee (2008) showed that social influence and expectations were the most significant factors influencing green consumption behaviour, followed by environmental concern and self-image. These factors may pose challenges as well as opportunities with green consumption.

Some of the challenges include: the high cost of green products compared to traditional ones (Polonsky, 2011; Sexton & Sexton, 2011); consumers' unwillingness to appreciate the long-term gains of green consumption (Zhao, Gao, Wu, Wang, & Zhu, 2014); green products' unavailability (especially in Fast Moving Consumer Goods), disbelief of green claims; lack of information or complex information (Young et al., 2009); a gap between green consumption beliefs and behaviours; lack of time (Whitmarsh & O'Neill, 2010; Young

et al., 2009); narrow understanding of this phenomenon (Peattie, 2010); as well as ineffective marketing of green products to consumers (Gupta & Ogden, 2009).

Further, green consumption as a concept has several unique features. These features are contextual, specific, and revealed in different shades through the consumption process. For example, consumers can buy conventional products and compensate with a post-purchase green behaviour (Pedro Pereira Luzio & Lemke, 2013). Some of the key features of green consumption are that it features as a consumers' means of expressing their own self-identity, having fun, networking, and having adventure (Andreou, 2010; Autio et al., 2009). Just as green consumption has unique features, so do the types of green consumers. According to Bhate (2002) there are five types of green consumers: Green Unaware, Green Incapable, Anti-Green, Green contributor, and Green Rebel. While Peattie (2001) identifies three types of green consumers: the "consistent non-ecologists", the "consistent ecologists", and the "in-between different shades of green and grey". Alternatively, Moisander (2007) outlined two types of green consumers: radical and "mainstream/not-so-green" (liberal) consumers.

Despite the seemingly growing attention, consumers for green consumption are few and far between (Haws, Winterich, & Naylor, 2010, 2013); because the green consumption decision-making process is complex (Young et al., 2009). Hence, it is important to analyse the factors that influence green consumption decision-making (Oztek & Cengel, 2013). Further, the challenge researchers face means being able to identify and examine green consumption predictors (Chatzidakis, Maclaran, & Bradshaw, 2012; Gupta & Ogden, 2009). Failure to identify these green consumption–dimension predictors may hinder the proper understanding of the green consumption concept.

Despite lack of understanding and other challenges regarding green consumption, interest in green consumption has been increasing and for different reasons (Wang & Qin, 2013; Wang & Shukla, 2013; Zsóka et al., 2013); these include minimising the impact of increased consumption on the environment; seeking a healthy lifestyle and wellbeing; attaining quality of life (Huang & Rust, 2011; Lorek & Fuchs, 2013; Ritter et al., 2014), given the perception that the benefits of green consumption are higher than the perceived risks (Rohm & Swaminathan, 2004). Other reasons include self-oriented motives, socialisation, social identity, and public affirmation and approval (Griskevicius, Tybur, & Van de Bergh, 2010; Whitmarsh & O'Neill, 2010). In general, green products consumption is directly influenced by: green products' benefits, costs, the environment, attitude, norms, and behaviours (Griskevicius et al., 2010; Pedro Pereira Luzio & Lemke, 2013). As the interest in green consumption increases, there is a need for further research in understanding, refining, as well as regarding whether this dimension should be included in CDMS models such as the CSI scale, as discussed hereunder. A variety of research work has been undertaken to understand sustainable green consumption practices. Some of these works include public policy on sustainable green consumption (Assadourian, 2010), green consumption, and green production (Connolly & Prothero, 2008), and voluntary green consumption simplicity (Lee, 2010).

On the other hand, as indicated by other researchers, Ritter et al., (2014); Tseng and Tsai, (2011) indicate that despite noticeable developments in green consumption research, further investigation is required regarding green consumption in relation to well-being, personal values, religion, consumption ethics,

sustainability, and green dimensions. Peattie (2010) highlighted that most research on green consumption has overlooked consumers' experiences with green consumption (i.e., purchase, use, post-use, and disposal), specifically in the context of CDMS and the CSI.

2.8.1 Related Scales to Green Consumption

Green consumption is a relatively recent area of research in green consumerism. Due to its growth trends, several research domains attempted to include green factors in their research. Some of the key pioneers in the area of green consumption related scale development are Schwartz (1994) with Universalism scale; Grunert and Juhl (1995) with Environmental domain scale; and Haws, Winterich, and Naylor (2014) developed a scale of green consumption values.

2.8.1.1 Universalism Scale

Schwartz (1994) is one of the key pioneering researchers in this area and developed a scale consisting of "universalism" dimension suggesting that high levels of environmental activism is strongly linked to values that are considered to be of great importance to the consumer (Schwartz, 1994). However, his work reflect general social and relational values between humans and nature, rather than specific environmental concerns (Grunert & Juhl, 1995), which is the departure point of this green consumption scale development study.

2.8.1.2 Environmental domain Scale

Another key scale which has environmental domain in it was developed by Grunert and Juhl (1995). Its central focus was on the environmental aspect of a socially conscious consumer. A consumer who buys environmentally friendly or organic products (e.g. food) that are produced in methods that preserve resources and minimize pollution problems as well as minimising the risk of diseases such as allergies. These are some of the similarities between this scale and the current study. However, this scale is different from the scale this study is proposing, as its focus is on effects of consumer values on buying environmentally friendly products. While the proposed scale by this study focuses on the consumers' green consumption decision-making factors.

2.8.1.3 A scale of green consumption values

Further, Haws et al. (2014) developed a scale of green consumption values. Their key proposition is that consumers have a tendency of expressing their values of environmental protection through one's purchases and consumption behaviour. Therefore, they developed a scale to measure primary differences across consumers who do and do not value conserving the environment as part of their consumption behaviour. Hence, they introduced the construct of green consumption values, enacted through purchases and consumption behaviours, rather than decision-making styles per se. Furthermore, this scale was designed to measure consumer social responsibility, a concept can become dated as perceptions of socially responsible behaviours change over time (Dunlap, Van Liere, Mertig, & Jones, 2000). Hence, there is a need

to develop a concise scale which will exclusively measure green consumption decision-making. Together, previous research (Haws et al., 2014) has investigated consumers consumption values, yet no reach has yet investigated consumer decision-making making style in the 'green domain'.

Further, despite the evidences that green behaviour is also an emerging trend amongst developing countries, there is a limited and narrow understanding of different dimensions in green consumption behaviours (Moraes, Szmigin, & Carrigan, 2008), such as between developed and developing country contexts. Further, the understanding of green consumption drivers is still incomplete (Haws et al., 2014). Also, there has been a limited research into how consumers' thoughts, feelings, and perceptions affect green consumption behaviour (Moraes et al., 2008).

Therefore, in this era of widespread environmental concern, it is critical to analyse and understand the influences involved in green consumption decision making (Oztek & Cengel, 2013). There is a need for the integration of the green consumption dimension in CDMS such as the CSI. Hence the proposal for green dimension to be integrated into the CSI scale by identifying, defining and determining its valid and reliable elements (items).

Moreover, research in green consumption domain has shown that there are several items related to the green consumption concept. This means several items have been considered as part of the green consumption dimension. Based on previous research (Abeliotis, Koniari, & Sardianou, 2010; Chen & Chang, 2012; Jain & Kaur, 2006; Kim et al., 2012; Lin & Huang, 2012; Liu, Wang, Shishime, & Fujitsuka, 2012; Luzio & Lemke, 2013; Michaud & Llerena, 2010; Peattie, 2001; Saeed et al., 2013). Seventeen (17) items have been identified as items for the green consumption dimension based on review of past research through literature review. These 17 items are the basis for the expert review in the next chapter. These items have been used by various researchers in the past from different research domains as shown in Table 2.34 below.

Table 2.34: Green consumption dimension items

	Item	Reference	Domain
1	Reducible	Abeliotis, Koniari, & Sardianou, 2010	*Consumer Studies*
2	Reusable	Abeliotis, Koniari, & Sardianou, 2010	*Consumer Studies*
3	Recyclable	Abeliotis, Koniari, & Sardianou, 2010; Kim et al., 2012; Lin & Huang, 2012;	*Consumer Studies, Green consumption; Values and ethics*
4	Organic	Kim et al., 2012	Green consumption
5	Energy efficient	Kim et al., 2012	Green consumption
6	Fair trade	Kim et al., 2012; Kim, Lee, & Park, 2010.	Ethics,
7	Eco-friendly	Autio, Heiskanen, & Heinonen, 2009; Ibok & Etuk, 2014; Wu & Chen, 2014	Environmental domain
8	Renewable	Autio, Heiskanen, & Heinonen, 2009; Ibok & Etuk, 2014; Wu & Chen, 2014	Environmental domain
9	Hazardous	Autio et al., 2009	Environmentalism
10	Organic	Autio, Heiskanen, & Heinonen, 2009; Ibok & Etuk, 2014; Wu & Chen, 2014	Green consumption, Socio-economic
11	Energy efficient	Hafstrom et al. 1992; Mitchell & Bates, 1998;	Consumer affairs, Marketing
12	Environmentally friendly	Sheahan 2009; Sullivan & Heitmeyer 2008	Environmentalism
13	Sustainable	Biswas & Roy, 2015; Assadourian, 2010; Huang and Rust, 2011; Liu, Wang, Shishime,, and Fujitsuka, 2012;	Cleaner production, Consumer culture,
14	environmental conservation	Durif, Boivin, & Julien, 2010	Marketing
15	Ethical	Chatzidakis, Maclaran, Bradshaw, 2012; Kim, Lee, & Park, 2010.	Ethics
16	Responsible	Kasper et al., 2010; Wang et al., 2004	Ethics
17	Biodegradable	Autio, Heiskanen, & Heinonen, 2009; Ibok & Etuk, 2014; Wu & Chen, 2014	Bio Diversity

Scattered research across various domains suggest what could constitute the green dimension. However, no systematic effort has been made to incorporate green into the CDMS. For example, it appears that marketers and academics have not yet identified the predictors, roles, processes, and effects associated with the CSI green consumption dimension (Wesley et al., 2006; Sinkovics et al., 2010), as substantial academic research has focused on traditional products in evaluating CDMS (Walsh, Thurau, Mitchell, 2001) and paying little attention to green consumption.

2.10 Summary and Conclusion of the Literature Review and Directions for the Present Study

Consumption style and its impact on consumers has long been a topic of interest for researchers and marketers. Consumption style is determined by the way the consumers respond to their needs, wants, context, and culture. The most influential work on this area was done by Sproles and Kendall (1986). In line with their CSI scale, various studies have been conducted across cultures to understand the type of consumption style that is most effective to consumers in those particular contexts. As a result, inconsistent findings were documented between the different cultures. Positive and negative criticisms on CSI scale were reported. This difference might be due to cultural orientations.

With regard to the type of CSI consumption style in the Tanzanian contexts, no previously published studies were found; while only a limited number of publications were found on green consumption research and consumer decision-making. This is evident that CSI styles commonly exercised in Tanzania at present are not known; hence the gaps to be addressed. Therefore, one of the key goals of this study is to address these gaps, with regards to the Consumer Decision-Making Styles (CDMS) measure, that is to ensure the measure captures the recent developments in the green consumption domain and secondly to ensure that the measure is generalizable across both developed and developing countries (i.e. Tanzania and New Zealand). Particularly, this research aims at developing and comprehensively validate green CSI scale instrument in the context of CDMS as well as examining consumers' purchasing decision-making of different products using the newly developed GCS scale separately and as a part of the CSI measure across both emerging (Tanzania) and developed country New Zealand contexts.

PART II:

RESEARCH METHODOLOGY AND RESULTS

CHAPTER 3 EXPLORATORY QUALITATIVE RESEARCH

3.1 Chapter Overview

This chapter provides an overview of qualitative exploratory research undertaken with regard to the Green Consumer Scale (GCS) construct development as recommended by Churchill (1979). The chapter covers GCS definition, key themes that will be used for quantitative analyses, as well as the relationships between GCS and its antecedents. This chapter is organised as follows.

Section 3.2 Research Methodology Overview, Purpose, and Rationale

Section 3.3 Development of the Green Consumption Scale: Overview

Section 3.4 Step 1: Specify domain of construct

Section 3.5 Step 2: Generate sample of items

Section 3.6 Qualitative Research: Key Findings

Section 3.7 Chapter Summary

3.2 Research Methodology Overview, Purpose, and Rationale

This research adopts a mixed methods research approach, using qualitative and quantitative research techniques because mixed methods research is more comprehensive than a single method research (Abowitz & Toole, 2009). The mixed methods research design also fits well with Churchill's (1979) scale/construct development steps (see section 3.2.2). The rich, deep insights obtained in the exploratory, qualitative research are used to better understand, and develop a conceptualisation of GCS.

The goal of the qualitative research is two- fold. First, it is important to investigate to what extent the consumer decision-making styles (CDMS) Sproles and Kendall (1986)) are applicable in the context of the two countries (i.e. Tanzania and New Zealand). Second, and most importantly with regards to this study, it is to investigate whether green consumption was part of the consumer decision making styles in the respective countries in the first place, and if so provide initial insights into its structure. Therefore, this qualitative part of the mixed method is mainly conceptual and exploratory. In summary, this research intends to develop a GCS theoretical conception through Qualitative research followed by a structured 'verification' (Quantitative research) in order to elicit further insights into the GCS dynamics. These insights are obtained by initially adopting qualitative interviewing and focus group (Spradley, 2016; Stewart & Shamdasani, 2014) followed by scale development (Chapters 4-6).

In conjunction with literature review, the qualitative research can facilitate to uncover insights as to the existence of the theorised concepts such as GCS in consumer behaviour; its salient theme; antecedents; and their focal consequences. Further, the first step in the proposed scale development and validation model was construct specification. In order to explore and identify the types of green Consumer Decision-Making Styles (CDMS), qualitative data were gathered after research ethics clearance was completed.

These findings are subsequently employed in the quantitative research (Chapter 4); thus reflecting a sequential mixed methods research design (Mertens, 2014). Further, this study builds upon previous research by replicating the study done by Sproles and Kendall (1986) with a focus on the Tanzanian context. The remainder of this chapter focuses on the qualitative part of the adopted mixed methodology.

Adopting Churchill's (1979) construct development procedure, this research develops a GCS conceptualisation in this chapter (see also Chapter 2). Specifically, the steps in this model include both qualitative and quantitative techniques, to address the scale development and validation as discussed below.

The key foundation for any scale development is a clear definition of construct(s) critical to developing a scale or model (Klein, Dansereau, & Hall, 1994). A well-defined construct should be designed to achieve a specific scientific purpose; explain phenomenon of theoretical interest; measurable; embedded on a theory; forms causal relationships; and capable of having an operationalised meaning (Edwards & Bagozzi, 2000; Peter, 1981). By meeting the above-mentioned criteria, the dangers of having a poorly defined construct as warned by Jarvis and MacKenzie (2003) are avoided. These dangers include deficient scale, contaminated measures, model misspecification, and a weak theoretical rationale when underlying the development of the research hypotheses.

In case of this thesis as a social research, the terms 'concept' and 'construct' are used interchangeably Based on the above insights, this research seeks to investigate the operationalised meaning of the GCS concept.

3.3 Development of the Green Consumption Scale: Overview

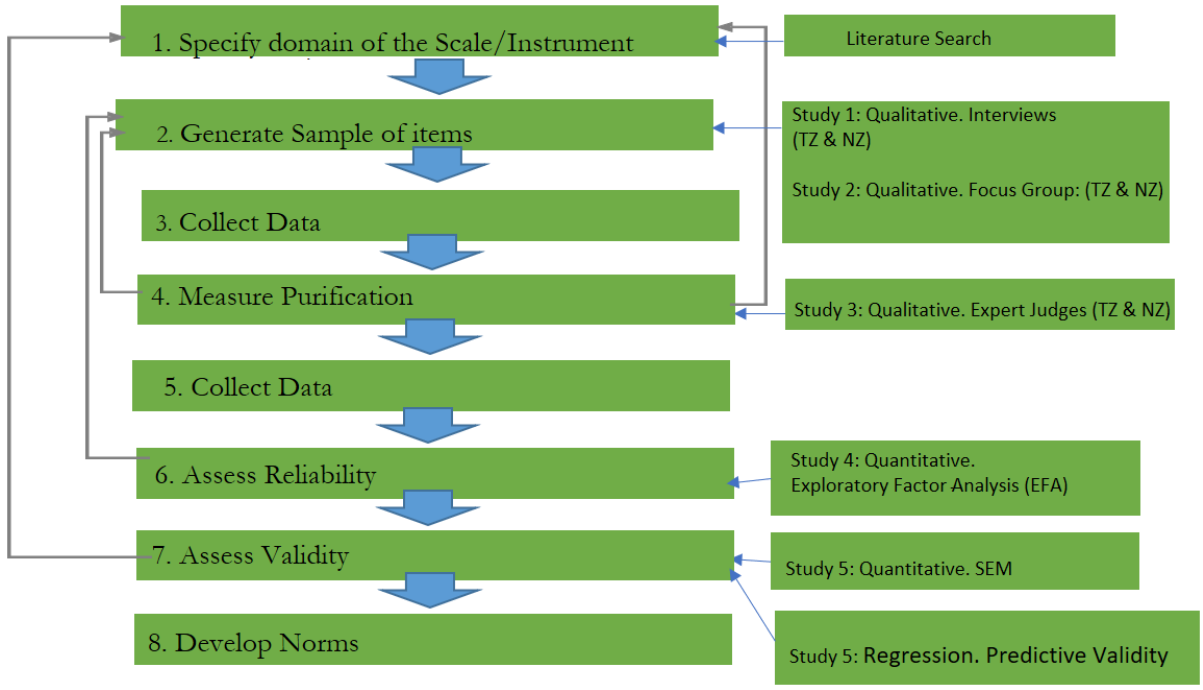
Churchill's (1979: p. 66) eight-step, multi-trait multi-method procedure for scale development was adopted in this research (Figure 3.1 below). Specifically, Churchill's scale development procedure is based on domain sampling theory, which permits assessments of factor-analytic results, coefficient alpha, and (construct) validity assessments (Nunnally and Bernstein, 1994; Steenkamp and Van Trijp, 1991).

To measure the construct of interest, specific sets of multiple-item scales were employed (Jarvis et al., 2003). Step 1 *Specify the domain of construct* involves conducting a literature review to determine exactly what should be included and excluded in the definition of the construct (Chapter 2). Step 2 *Sample of Items are generated* (this chapter), uses the literature review and qualitative research techniques to generate items that capture the dimensions of the construct. After the item pool in Step 2 has been carefully edited, in Step 3 *quantitative data are collected* to *purify the items (Step 4)*.

The collected data are analysed by exploratory factor analysis to determine the number of dimensions and to identify inappropriate items. Cronbach alpha is used to determine reliability of items (Chapter 4). Step 3 and 4 should result in face and content validity. After inappropriate items are deleted, in Step 5 a second *data set is collected*, and in Step 6 *Assess reliability with new data,* confirmatory factor analysis is used with the new data set to determine internal consistency, followed by Step 7 *Assess validity* (convergent and discriminant validity) as well as the predictive validity of the construct (Chapter 4).

Finally, step 8 *Develop norms* by establishing descriptive statistics (means and deviations). Additionally, assessments pertaining to the nature and directionality of specific GCS conceptual relationships are also undertaken in Chapter 4. Churchill's approach has found widespread acceptance in the literature including in investigations of marketing-based concepts (Anderson and Gerbing, 1988; Churchill and Peter, 1984).

Figure: 3.1 Churchill's Procedure for Scale Development



Source: (Churchill, 1979)

3.4 Step 1: Specify domain of construct

Churchill's (1979) first step in the scale development process is to specify the context for the construct of interest, incorporating a literature review to determine exactly what should be included and excluded in the definition of the construct. An extensive literature review of GCS and conceptually related concepts was conducted (Chapter 2). This study specifies *green consumption* as the consumption of goods and services that are: biodegradable, recyclable, fair traded, organic, non-toxic, eco-friendly, or renewable (Autio, Heiskanen, & Heinonen, 2009; Ibok & Etuk, 2014; Wu & Chen, 2014).

Following Churchill (1979) and Gerbing and Anderson (1988), the next step is to elicit and generate the specific items that could be included in the scale. These items were explored using qualitative research techniques, which is the focus of the following section.

3.5 Step 2: Generate sample of items

This second step is intended to produce scale items through interviews and focus groups, discussions, and brainstorming. This was done for the reason of getting an exhaustive list of items regarding green consumption (Schweizer, Kotouc, Wagner, & Rudolph, 2006; Sharma & Chan, 2011; Walsh et al., 2007); and they were concluded when data saturation was achieved with no further item inclusion or exclusion as well as by dropping redundant items (Costello & Osborne, 2011).

Both interview and the focus group participants were invited through advertising on the professional networks such as Linked in. This approach intended to represent the majority of socioeconomic groups in both countries, as well as diverse geographic areas and regions, in order to improve variety, robustness, randomness, heterogeneity and diversity.

3.5.1 Interviews

This study used the Green Consumption Construct definition and items identified in Chapter 2 (literature review) as the foundation for the in-depth interviews. These in-depth interviews were used to generate rich, deep insights regarding focal phenomena of interest (McKenzie, 1977; Cotte and Kistruck, 2006) - i.e., regarding consumer decision-making styles in general. The interviews for this research were done in Tanzania and New Zealand with 19 participants in total. Ten participants were from Tanzania, six females and four males, aged between 18 and 68 years old. The remaining nine participants were from New Zealand, four males and five females; aged between 21 and 63 years old.

Procedure

Following Brakus et al. (2009):

1. First, the interview protocol was developed (See Appendix 2) in order to guide and ensure appropriate use of precious interview time and comprehensiveness of the interviews (Lofland and Lofland, 1984). The main researcher fulfilled the role of interviewer (Denzin and Lincoln, 2005; Belk, 2006).
2. In the opening phase of the interviews, the respondents were given the opportunity to elaborate their opinions on how and why they choose products they buy and what aspects or attributes of the products or the process itself is important to them. Because a lot of respondents mentioned that sustainable or green products were an important aspect of the decision making, in the next stage, participants were explicitly probed about that.
3. In this stage, participants were asked ***"what makes a product green"*** in an open-ended manner based on their personal conceptions of green products (Myers and Newman, 2007). This approach contributed to a conservative assessment of whether respondents shared the green products conceptualisation (see Chapter 2; Brakus et al., 2009).
4. Probing followed and was used to obtain additional information from the respondents (Denzin and Lincoln, 1994). Overall, the interviews combined open-ended and close-ended interviewing approaches in order to capture as much information as possible through open-ended questions, while achieving specific information or clarification through close-ended questions (Hollway and Jefferson, 2000; Reja,

Manfreda, Hlebec, & Vehovar, 2003), hence reflecting the 'theory development' role of qualitative research.

5. Then the participants were asked about their ***perception of what are the features of a green product***. This stage of the interviews contributed further insights into this research's purpose whilst also permitting improvisation of additional insights (Fontana and Frey, 2000; Patton, 1990). (This open-ended interview format was also adopted for the focus groups that followed.)
6. Interviews were not recorded, but extensive notes were taken, which were later coded by independent coders. Coding outcomes were cross-checked, with any differences resolved by the researcher in consultation to the literature.
7. Reaching Saturation point. Theoretically, the saturation of interview responses occurs when the exhaustion of salient aspects of the phenomenon studied is reached (Denzin and Lincoln, 2005). Typically, saturation is reached after conducting 8-24 interviews (Riley, 1996). In this research saturation was reached after 19 interviews.
8. Results/Outcome. The results provided general support for the emergence of the previously established consumer decision-making styles (Table 3.1). However, more importantly, the green consciousness theme was clearly appearing through the first phase of the interview and was often interconnected with other factors (e.g., brand consciousness for "green brands" or brand loyalty for sustainable brands) (Table 3.2).

   Hence, the relatively high level of conceptual understanding of green consumption by respondents was confirmed in the first stage of the interview and therefore was further explicitly addressed in the second stage. In the second stage, thirteen themes of green consumption have emerged based on CSI and green consumption literature which was used as a source of the interview questions and parameter (Table 3.2). These 13 themes were further refined in the focus group discussion in the next stage.

Table 3.1: Interview Results: Consumer decision-making styles

No	Factor	Example
	Green/sustainable consciousness	"I prefer to buy Fairtrade products and support companies that sell them" "I do not buy anything from Monsanto because they do genetically modified food and use a lot of chemicals…" "I boycott Mark & Spenser because they did not pay Kenyan and Tanzanian farmers for the cotton" "I like Millennium Challenge for their portable solar power and windmills…" "I am a loyal customer of Starbucks, because they use Tanzanian coffee" "I try to only buy labels with the green circle on them…"
1	Perfectionism	"I hunt for the best quality products" "I compare quality of different products when I am shopping" " I don't go for "good enough" product"
2	Brand consciousness	"I love to possess well-known brands" "High price tells me that the product is of a good quality" " I love to shop from a branded store"
3	Novelty-fashion	"Fashion is in my blood" "I love to be trendy … and sometime I like to be the trend setter when it comes to fashion and style" "I am modern and stylish" "I have a good taste for good fashion and style" "I keep up-to-date with styles" " I like being in style"
4	Recreational	"Shopping is a therapy to me" "Frankly speaking, most of the time I just shop for fun" " I shop for to entertain myself"

5	Price conscious	"I look for sale prices to save money" "I like getting the best value for my money"
6	Impulsiveness	"I do not plan my purchases; I go with the flow" " Most of the time I buy things that are on promotions"
7	Confusion	"I have problem in making choices" "I experience information overload bombarded from TV and Stores"
8	Habitual, brand-loyal	"I have my favourite brands "I have stores I loyal" "I have the habit of choosing the same brands most of the time

Table 3.2. Interview Results: Green consumption

Question: What makes a product green?			
Theme	Category	%	Example
Adhere to fair trade	1	72.8% (14)	"are not produced in the sweat factories" "fair to poor Cocoa and Banana farmers and others in Africa and Asia" "…not involved in child labour sandals"
Biodegradable	2	67.6% (13)	"… can turn them into compost" "Non-Synthetic"
Certified to be environmentally-friendly	3	72.8% (14)	"saves money and the environment" "We use recycled printing paper at our office" "…I have started buying recycled toilet paper" " I have been always buying and using reusable napkin"
Durability	4	52% (10)	"…used for a long period of time" "they are strong"
Eco-friendly	5	78% (15)	"… have Ecolabels" "Has fewer pollutants" "Produces less waste" "Not from endangered eco-system" "Not from Genetically modified Organisms (GMO)"
Energy efficient	6	57.2% (11)	"… have higher energy star ranking" " ...use less energy"
Good for planet	7	88.4% (17)	"… they are organic" "non artificial" "they don't have preservatives …" "…no chemical involved in their production, packaging or preparation" "Has fewer pollutants" "Produces less waste" Not disposable "Not from Genetically modified Organisms (GMO)"
Produced in ethically responsible manner	8	78% (15)	".. no animal cruelty is involved in their development" "...not from exploited labourers in those poor third world countries" " …are responsibly sourced"
Promote environmental conservation	9	67.6% (13)	"Renewable energy is used in its production…' "saves water"
Recyclable	10	100% (19)	"…that itself and its package can be repurposed, or reused" "Recycled paper" "Recycled toilet paper" "…not disposable" "… are those ones that I can salvage most of their parts" "…salvageable products"
Reducible	11	62.4% (12)	"those that help with waste reduction" Have low maintenance cost
Re-usable	12	83.2% (16)	"Product in refillable containers" " … that I can use its container for different purposes"
Toxic free	13	93.6% (18)	"Not having harmful ingredients" "None poisonous products" "…they are naturally produced products" "has no adverse health effects" "…contains all natural ingredients"

3.5.2 The Focus Group

For the second stage of generating items focus groups were adopted. Similar to in-depth interviews, the focus groups method is widely used in marketing research (Calder, 1977; Catterall and Maclaran, 2006). After completing the interview, a moderated focus group (Fern, 1982) comprising seven participants was held in both New Zealand and Tanzania. The rationale of using focus group is that focus groups have the advantage over in-depth interviews, in a way that they include the role of the group in generating richer insights than the depth-interviews, which employs a single participant at a time (Morgan, 1996). Therefore, by combining these techniques, this study was able to capitalise on the benefits of both methods (Morgan, 1996); thus generating richer, deeper insights, relative to adopting these techniques in isolation.

The New Zealand focus group was held on the Auckland campus of Massey University with five members, while the Tanzanian focus group took place in the Central Library in Dar es Salaam with seven members, thus falling within the recommended range of 4-10 (Kitzinger, 1995; Morgan & Smircich, 1980; Fern, 1982). These focus groups discussions were moderated by the researcher, with an assistant taking extensive notes, which were later coded using the same process as with the interviews. The focus groups took approximately 75 minutes to complete. This falls within the recommended time range of 1-2 hours (Kitzinger's (1995). Focus-group discussion items stemmed from the earlier conducted interviews. The focus group members came from professional bodies, academia, and NGOs, obtained from social media notices and through personal social networks.

Table 3.3 Focus Group Participants*

Sr. No	Name	Age	Gender	Occupation	Country
1	Faraja	45	Female	Lecturer	Tanzania
2	Aman	36	Male	Engineer	Tanzania
3	Agrey	21	Male	Pharmacologist	Tanzania
4	Joan	63	Female	Bee farmer	Tanzania
5	Nango	18	Male	Student	Tanzania
6	Sarah	41	Female	Biochemist	Tanzania
7	Lily	35	Female	Lawyer	Tanzania
1	Frank	44	Male	Academic	New Zealand
2	Joy	21	Female	Student	New Zealand
3	Ben	63	Male	Waste Management Strategist	New Zealand
4	Angela	45	Female	Consumer Insight Researcher	New Zealand
5	John	36	Male	Marketing Consultant	New Zealand

- names were changed to preserve the anonymity of the participants

Similar to the interviews process, the focus group discussion started by asking the participants open-ended focus group questions to understand respondents' opinions on ***"what makes a product green"***. The terms 'green product' and/or 'green consumption' were used explicitly in the focus group, rather than adopting other, similar terms to describe the concept (e.g., green products experience).

After defining each green consumption style item, participants in the focus group discussion were asked to list as many indicators as possible to represent each of the identified consumption style. The statements from the interviews were reviewed, edited, refined. Double barrel ones were split into two. Identical and equivalent items were removed. The remaining 11 items were retained for further evaluation to be carried out by nine expert judges in consumer behaviour, green consumption, and scale development from Massey

University and other expert bodies, in order to evaluate the generated items' representativeness of the green consumption dimension (Hardesty & Bearden, 2004).

3.5.2.1 Procedure

Qualitative data analysis involves "working with data, organising it, breaking it down into manageable units, synthesising it, exploring patterns, discovering what is important and what is to be learned, and deciding what to convey to others" (Bogdan and Biklen, 1982: p. 145). There are seven steps in qualitative data analysis; these includes categorisation, abstraction, comparison, dimensionalisation, integration, iteration and refutation (Spiggle, 1994).

1. First, **categorisation** reflects the process of classifying, or labelling, data units by employing the process of coding. Thematic analysis is a process for encoding qualitative data resulting in the development of themes (i.e. patterns found in the data), which can be used to interpret key aspects of the investigated phenomenon (Boyatzis, 1998).

   In this study, thematic analysis was used to interpret green products facets obtained from the interview. In this research, thematic analysis was undertaken by means of categorisation of the focus group data (Spiggle, 1994). Thematic analysis was chosen over content analysis because thematic analysis incorporates the entire interview conversation as the potential unit of analysis.

   Two levels of Thematic analysis were conducted starting with open coding then followed by axial coding. Open coding was used to identify themes in the data with the aim of creating descriptive categories as a preliminary framework for analysis (Strauss and Corbin, 1998). The themes were inductively generated from the interview raw data, and to a certain extent deductively from theory and prior research (see Chapter 2; Hyde, 2000).

   For this study, the focus was on the data-based, inductively-emergent findings unique to green product conceptualisation. Themes were identified at the manifest level (i.e., directly observable in the data), and at the latent level (i.e., underlying the phenomenon of interest; Boyatzis, 1998).

   The open codes were developed from text, which varied in length from several words to paragraphs. Some passages represented more than a single category, resulting in multiple codes designated to particular passages (see Appendices).

   Further, a portion of the data did not contain any meaningful information and thus remained un-coded. The analyst used axial coding to re-examine the identified themes in order to determine focal linkages and explanations of the phenomenon of interest (Glaser and Strauss, 1967; Strauss and Corbin, 1998). Hence the themes identified using open coding were compared and combined in different ways, as theme structures began to emerge from the data.
2. **'Abstraction'** step followed, whereby the data was collapsed in empirically grounded categories into the higher-order of conceptual constructs which are of a more general, conceptual class.
3. Further, the axial coding incorporated Spiggle's (1994: p. 495) **'iteration'** step, whereby the investigator did not perform specific research stages in a sequential manner, but may move back and forth between stages.

4. Then the analysis moved into the next stage of **'Comparison'** whereby it explored the differences and similarities across incidents in the data from protocol questions across the respondents (Spiggle, 1994: p. 493).
5. Then, **'dimensionalisation'** followed, whereby the properties of specific categories and/or constructs were identified (Strauss and Corbin, 1990: pp. 69-72; Spiggle, 1994: p. 494), which were then adopted to develop the proposed green product conceptualisation.
6. The final stage on this qualitative analysis was the **'Refutation'** by subjecting one's emerging inferences (i.e. categories, constructs) to empirical scrutiny (Spiggle, 1994: p. 496; see Chapters 4-6).
7. Final results; the focus group scrutiny resulted into removal of two themes (Durability and energy efficient) (See theme number 4 and 6 Table 3.2 above). The remaining 11 items were forwarded to the next stage of expert judges (Table 3.4 below).

Table 3.4. Items to be presented to the expert Judges (For scale items purification)

Items to be presented to the expert Judges
11 Items
Adhere to fair trade
Biodegradable
Certified to be environmentally-friendly
Eco-friendly
Good for planet
Produced in ethically responsible manner
Promote environmental conservation
Recyclable
Reducible
Re-usable
Toxic free

3.5.3 Expert judges' item assessment and refinement

Based on the literature review, Interviews, and focus-group discussions (Larceneux, 2001), a set of 11 items was developed to be presented to expert judges. Nine expert judges from academia, Research Bureaus, and practice who are knowledgeable in the topic and/or scale development. Four judges were from Tanzania and five from New Zealand. In case of New Zealand, two judges were from the industry, three from academia (A university based in Auckland). The procedure for this phase was as follows: -

1. These judges were given the description of "green product" as a product that supports environmental conservation as defined by Durif, Boivin, and Julien, (2010). This definition was used as a common ground from where the judgement of the items will be based on while achieving consistence in judgement criteria.

2. Judges were requested, independently, to rate and categorise each of the 11 items using a 3-point scale classification (1 = not representative, 2 = somewhat representative, and 3 = completely representative) (Diamantopoulos, 2005; Lawshe, 1975; Wilson, Pan, & Schumsky, 2012).
3. Then they were requested to show or add some omitted aspects of the dimension.
4. This expert judges exercise was conducted with the intention of improving face validity and enhance the scale's robustness from early stages (Rosas & Camphausen, 2007) and prevent future problems. To

assess the face validity, items rated "not representative" were removed, because they did not reflect general features of a green product concept. It was up to the judges to decide on the type and number of categories. The proportion of agreement among judges was high, representing high face validity (Karatepe, Yavas, & Babakus, 2005; Roy Chaudhuri, Mazumdar, & Ghoshal, 2011).

5. Next, content validity was conducted, whereby judges looked for any overlapping items as they may create conceptual meaning ambiguities (Walsh & Beatty, 2007).
6. Items confirmation. At this stage, 1 item was excluded while 10 were accepted and confirmed as the final outcome for the construct (see Table 3.3 below) to be included in the study one survey.
7. Finally, categories identification stage. After the confirmation of the final construct items by the judges next was to identify key categories of the green consumption construct resulting into three categories as shown below: -
    a. The first category includes three items that involve ***pre-consumption decision-making***.
    b. The second category includes four ***consumption-decision*** items.
    c. The third category includes three ***post-consumption decision*** items.
8. Resulted outcome. This process resulted in 10 items for further analysis, subsequent to validity tests (Hardesty & Bearden, 2004) to optimise the length of the scale. The 10 items were then submitted for initial pilot scale purification and validation process (Forsythe, Liu, Shannon, & Gardner, 2006; Soares, Farhangmehr, & Shoham, 2007) (see study 1 Chapter 4).

Table 3.5. Expert judges' item assessment and refinement

Number of items after presented to the expert Judges	Item excluded (items rejected by more than 1/3 of judges)	Number of refined, combined, & additional items after judging - Phase 2
11	1	10
Adhere to fair trade Biodegradable Certified to be environmentally-friendly Eco-friendly Good for planet Produced in ethically responsible manner Promote environmental conservation Recyclable Reducible Re-usable Toxic free	Eco-friendly	Adhere to fair trade Biodegradable Certified to be environmentally-friendly Good for planet Produced in ethically responsible manner Promote environmental conservation Recyclable Reducible Re-usable Toxic free

3.6 Qualitative Research: Findings

An overview of the responses on green product concept reveals the following.

- Overall, the preliminary findings indicated the prevalence of green products concept in consumers (see section 3.5).
- The findings support the previously established Consumer decision-making styles (Table 3.1) hence sense of applicability of these established scales to many different contexts.
- Further, the green consciousness theme clearly appears through the first phase of the interview and was often interconnected with other factors (e.g., brand consciousness for "green brands" or

brand loyalty for sustainable brands) (Table 3.2). Hence, conceptual understanding of green consumption by respondents was confirmed.

- However, the exclusion of Eco-friendly item from the list by judges as shown in Table 3.5 above seem to be unique

In the analysis a bottom-up approach was employed (Sabatier, 1986) whereby the identified green product concept themes facilitated the subsequent development of the green concept definition, by drawing on the analytical procedures outlined in sections 3.5.1-3.5.3 above.

3.6.1 Green Product Concept Definition

This section introduces the GCS definition developed from the integrative inductive (i.e., literature-based)/deductive (i.e., data-based) research. Integrative analysis of the key qualitative research findings, combined with the literature review findings (see Chapter 2), generated the development of a green product concept definition in this section. As addressed, an iterative, open/axial coding process was employed in the thematic analysis of the data, from which the key green product concept themes were developed; followed by the definitional development of the green product concept.

The deductive, literature-based analysis indicates a degree of conceptual alignment between the proposed green product concept definition and what qualitative data portrayed.

The proposed green product concept definition is focused on specific cognitive, emotional and behavioural activities observed in focal green products usage occasions; thus, exhibiting conceptual alignment to the Green Consumer Decision Making Theory (see Chapter 2). The qualitative research findings indicated that the respondents' interpretations of 'green products are predominantly centred on green products usage occasions (see Chapter 2).

3.6.2 Key Green Products Themes

The key green product concepts are concluded in Table 3.5 above. From the observations, respondents seem to undertake high levels of cognitive processing when interacting with (using) their selected green products, which was illustrated by respondents' use of the descriptor "recyclable". The conceptual analysis indicated the ability of green products to take up the consumer's full attention. From a Consumer Decision Making Theory perspective, cognitive processing reflects consumers' reciprocating their perceived green products-related benefits with a level of green products-related thought processing and/or elaboration in focal green products usage occasions.

Pride may arise from a sense of identification with the green products, which was also observed in the participants' responses. Correspondingly, the data suggested the emergence of relatively limited positive affect for green products perceived as necessities. To illustrate, Joy stated that " I will buy anything that satisfy my needs at that particular time, … [The green products] doesn't really matter [to me]…". An overview of the proposed green product construct items was derived from the analyses in Chapter 2 and this chapter, is presented in Table 3.5. A preliminary, literature-informed analysis of focal GCS antecedents

and consequences was provided in Chapter 2, which is explored further in this chapter with reference to the qualitative research findings (see section 3.5).

3.7 Chapter Summary

This chapter has provided an overview of the qualitative research undertaken to explore and understand the green consumption concept. Section 3.2 has provided a theoretical rationale for adopting scale development research in this thesis. Section 3.3 provided an overview of the proposed mixed methods research methodology. Further, section 3.4 provided specifications of Green Consumption Concept followed by section 3.5 that provided an overview of the qualitative research design, the specific qualitative data-analytical techniques and procedures adopted in this research. Key qualitative research findings were documented in section 3.6, which included the development of the proposed GCS definition, antecedents, and consequences.

The next chapter proceeds with exploratory factor-analysis (EFA) as initial steps in the green consumption scale development process.

CHAPTER 4: QUANTITATIVE ANALYSIS

4.1 Introduction

This chapter covers step 3 to step 8 of the scale development procedure by Churchill (1979). The chapter provides an overview of the development, validation, reliability, and confirmation of the developed scale as per Churchill (1979) recommendation. The chapter starts with Exploratory factor analysis (EFA) in section 4.2, followed by measure purification in section 4.3 (Churchill's Steps 3-4). While section 4.4 focuses on Confirmatory Factor Analysis (CFA), construct and predictive validities as well as norms (Churchill's Steps 5-8). The chapter concludes with key findings and the chapter summary.

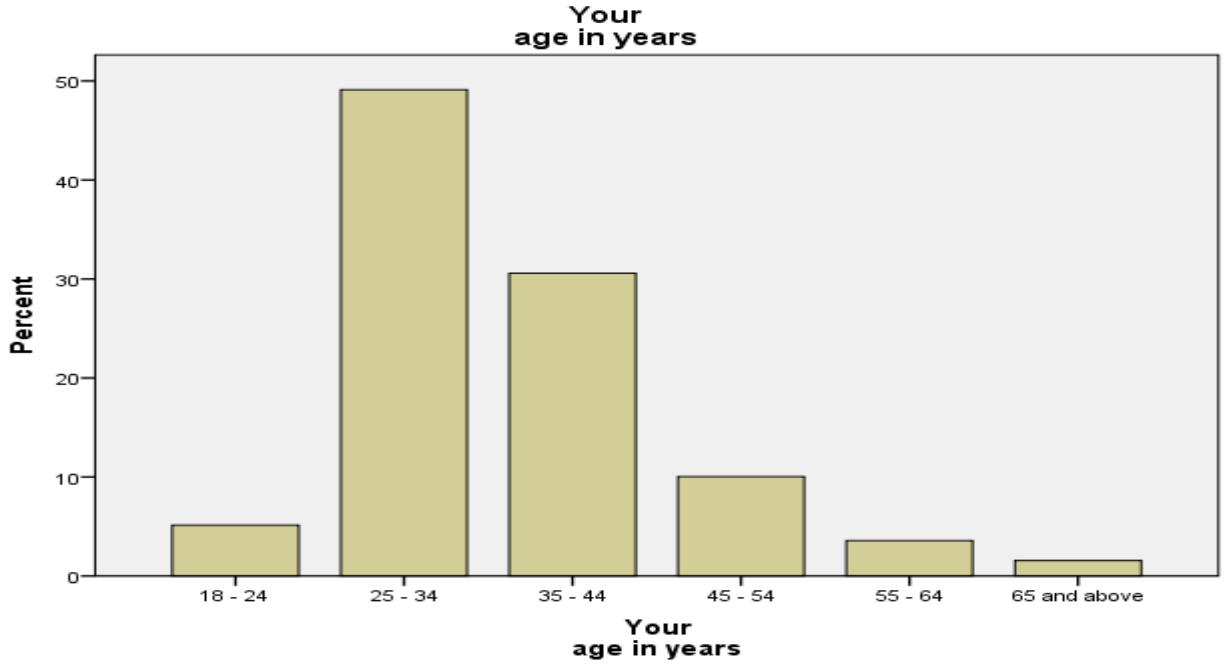
4.2 Study 1: Green Scale Development – Exploratory Factor Analysis

In Study 1, steps 3-4 of Churchill (1979) were applied (Step 3 for quantitative data collection and Step 4 for measure purification). Specifically, the first goal of study one was to purify the green scale by addressing content validity and face validity by conducting an Exploratory Factor Analysis (EFA) on the New Zealand participants (Step 3 of Churchill, 1979). The second goal was to test for construct validity by applying an EFA on the Tanzanian participants. Lastly, study 1 addressed the discriminant and convergent validity by conducting an EFA across the whole sample including the new green scale and the existing CSI Inventory (Step 4 of Churchill, 1979).

4.2.1 Step 3: Data Collection: research design

The data used in this phase were collected from Tanzania and New Zealand general public respondents. The sample (N=448) included consenting adults (female N=135; male N=313), between the age of 18 and 65 and above (see Figure 4.1 and Table 4.1) participants from rural, suburban, and urban areas, covering both students and non-students (Wesley et al., 2006). The majority of the respondents are from Tanzania (N= 367). The sampling approach intended to represent the majority of socioeconomic groups in Tanzania and New Zealand, as well as diverse geographic areas and regions, in order to improve variety and robustness.

Figure 4.1: Age distribution



Online snowball convenient sampling was chosen in order to achieve heterogeneity and diversity. The following process was followed:

The respondents were invited to participate by email, with a link to an online Qualtrics-based self-administered questionnaire, at their own consent. The email explained the purpose of the research. The contacts of the principal researcher and the supervisor were posted in the email. The data collection exercise took three months to complete.

Secondly, the respondents were requested to distribute the URL questionnaire link to their friends and colleagues (i.e. snowball sampling technique). This helped to recruit a large number of respondents in a short time, as well as accessing those whose accessibility was hard to be directly obtained by the researcher. An encouraging response was achieved (448 respondents). In addition, online data collection was possible due to the fact that there is more than 90% reliable access to the internet (including via mobile phones) in Tanzania (Nielsen, 2013; URT, 2013); and more than 83.1% of Internet penetration and more than 3.5 million Internet users in New Zealand (Schwartz 2010). This high rate of internet usage in both countries helped to overcome the disadvantage of an online survey of only reaching those who have access to the Internet.

The study aimed at achieving 300 usable responses from the participants, as suggested by Hair et al. (2010). However, 448 usable responses were achieved: well beyond the lowest threshold for an analysis to attain stable and adequate factor solutions (Kline, 2005; Wolf, Harrington, Clark, & Miller, 2013). Further, this sample size may help to effectively balance statistical reliability and research confidence level (Blankenship et al., 1998).

Once the participant received the invitation, they could open the questionnaire. After a short introduction explaining the purpose of the participants were asked to indicate on a five-point Likert scale (from 1= "strongly disagree" to 5= "strongly agree") for the 34 statements presented to them in the questionnaire. The first 24 statements in the questionnaire are based on the CSI scale developed by Sproles and Kendall (1986). The last 10 items were the new green scale as identified in (section 3.5.3).

4.3 Step 4: Purify measure

4.3.1 Results Study 1A (New Zealand participants – Green Dimension only)

In the first step I aim to purify the green scale by addressing content validity and face validity, by looking at the New Zealand sample and applying an EFA using the new green scale. At this stage, EFA was used to explore the underlying structure of the items (Churchill, 1979; d'Astous & Boujbel, 2007; Hair et al., 2010). Factor pattern matrix was undertaken to assess the inter-factor correlation. Items with correlation near zero were eliminated as advised by Sweeney et al. (2000).

Principal component factor analysis with Varimax rotation (George & Mallery, 2003; Johnson & Wichern, 2014; Pett, Lackey, & Sullivan, 2003; Tabachnick & Fidell, 2013) was used to explore the underlying dimensions of the survey questions on the 10 green consumption items. This was used to determine construct validity. Factor loadings were used as the criteria to determine the construct validity. This is because, the greater the loading, the more the variable is a pure measure of the factor, and thus the higher the construct validity. This study followed the advice by George and Mallery (2003) who suggested that in general the loadings in excess of 0.71 are considered excellent, 0.63 are considered very good, 0.55 are considered good, 0.45 are considered fair, and 0.32 are considered poor.

The following three criteria were used for determining the number of components extracted in the model (George & Mallery, 2003; Johnson & Wichern, 2014; Pett et al., 2003; Tabachnick & Fidell, 2007, 2013; Nunnally, 1994). First, Kaiser's criterion was used to compute the Eigenvalues for the correlation matrix and determine how many of the eigenvalues to be included in the scale. The inclusion criterion was that only eigenvalues ≥ 1 were to be included in the model. Second, Cattell's scree plot criterion was used to plot eigenvalues, paying attention to spots in the plot where the plot abruptly levels out.
To determine whether the common factor model was appropriate, the anti-image correlation matrix was examined, and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were reported (Blankson, 2008; Pett et al., 2003).

Based on the criteria mentioned above, it is clear that the green consumption model was appropriate and a good fit. The diagonals of the anti-image correlation matrix were all over 0.6, supporting the inclusion of each item in the factor analysis (Tabachnick and Fidell, 2001). The items confirm that they shared some common variance with each other. The Kaiser-Meyer-Olkin (KMO) (Table 4.2 below) measure of sampling adequacy (MSA) was 0.914, which is very good as indicated by Kaiser (1974); hence, suggesting a likelihood

of a factor structure underlying the data (Holmes-Smith, 2011: p. 1.7). This may suggest that indicating that it was appropriate to include the items in the model. Furthermore, Bartlett's test of sphericity was significant ($p < 0.001$), indicating that the correlation matrix was not an identity matrix; and can be factored, as large correlations were observed amongst the variables (Holmes-Smith, 2011; p. 1.7); hence it was appropriate to have the items in the model.

Table 4.2. KMO and Bartlett's Test- New Zealand– 10 items

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.914
Bartlett's Test of Sphericity	Approx. Chi-Square	564.425
	df	45
	Sig.	.000

However, the result reported on Table 4.3 below shows that the communalities of nine out of ten factors exceeded the minimum criteria of 0.5 as recommended by (Dubey & Alam, 2012; Hopkins & Shook, 2017). These items loaded between 0.537 and 0.783. One item namely "re-usable" did not load well. It loaded at 0.457, which is below the cut-off point of 0.5 as per recommended by (Dubey & Alam, 2012; Hopkins & Shook, 2017). This may mean that re-usability of a product is not one of the key factors influencing New Zealand consumers' green consumption decision.

Table 4.3. Communalities- New Zealand – 10 items

	Initial	Extraction
"I prefer to buy products that ...:"-promote environmental conservation awareness	1.000	.708
"I prefer to buy products that ...:"-are produced in an ethically responsible manner	1.000	.659
"I prefer to buy products that ...:"-are biodegradable	1.000	.699
"I prefer to buy products that ...:"-are recyclable	1.000	.588
"I prefer to buy products that ...:"-are good for the planet	1.000	.783
"I prefer to buy products that ...:"-are free of toxins	1.000	.590
"I prefer to buy products that ...:"-are certified to be environmentally-friendly	1.000	.678
"I prefer to buy products that ...:"-adhere to fair trade principles	1.000	.703
"I prefer to buy products that ...:"-are re-usable	1.000	.457
"I prefer to buy products that ...:"-are reducible	1.000	.537
Extraction Method: Principal Component Analysis.		
New Zealand		

Based on communalities results on Table 4.3 above, the "re-usable" item was removed from the green consumption dimension as it was below 0.5 threshold. Thereafter, EFA was conducted again on the remained nine items of the construct. The result from the second EFA confirmed all nine items as they were above 0.5 threshold) (see Table 4.4). This indicates that these items do share some common variance with each other, thus suggesting the existence of sufficient linear association among the variables.

Table 4.4 Communalities – New Zealand – 9 items

Communalities	Initial	Extraction
Green1- "I prefer to buy products that ...:"-promote environmental conservation awareness	1.000	.712
Green2 - "I prefer to buy products that ...:"-are produced in an ethically responsible manner	1.000	.664
Green3 - "I prefer to buy products that ...:"-are biodegradable	1.000	.696
Green4 - "I prefer to buy products that ...:"-are recyclable	1.000	.564
Green5 - "I prefer to buy products that ...:"-are good for the planet	1.000	.794
Green6 - "I prefer to buy products that ...:"-are free of toxins	1.000	.606
Green7"I prefer to buy products that ...:"-are certified to be environmentally-friendly	1.000	.688
Green8 "I prefer to buy products that ...:"-adhere to fair trade principles	1.000	.717
Green10 "I prefer to buy products that ...:"-are reducible	1.000	.546
Extraction Method: Principal Component Analysis.		

The Kaiser-Meyer-Olkin (KMO) (Table 4.5 below) measure of sampling adequacy (MSA) was 0.905, showing that it was suitable to include the items in the model. With KMO statistic of 0.905, which exceeds the critical value of 0.6 (Tabachnick and Fidell, 2001), hence it can be recognised as "marvellous" as indicated by Kaiser (1974). In the same string, the overall results suggest that there is "probably a factor structure underlying the data" (Holmes-Smith, 2011: p. 1.7). Likewise, Bartlett's test of sphericity was significant ($p < 0.001$), showing that the correlation matrix was not an identity matrix. Findings suggest that the sample correlation matrix differed significantly from the identity matrix; as large correlations were observed amongst the variables (Holmes-Smith, 2011; p. 1.7).

Table 4.5. KMO and Bartlett's Test – New Zealand - 9 items

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.905
Bartlett's Test of Sphericity	Approx. Chi-Square	521.677
	df	36
	Sig.	.000

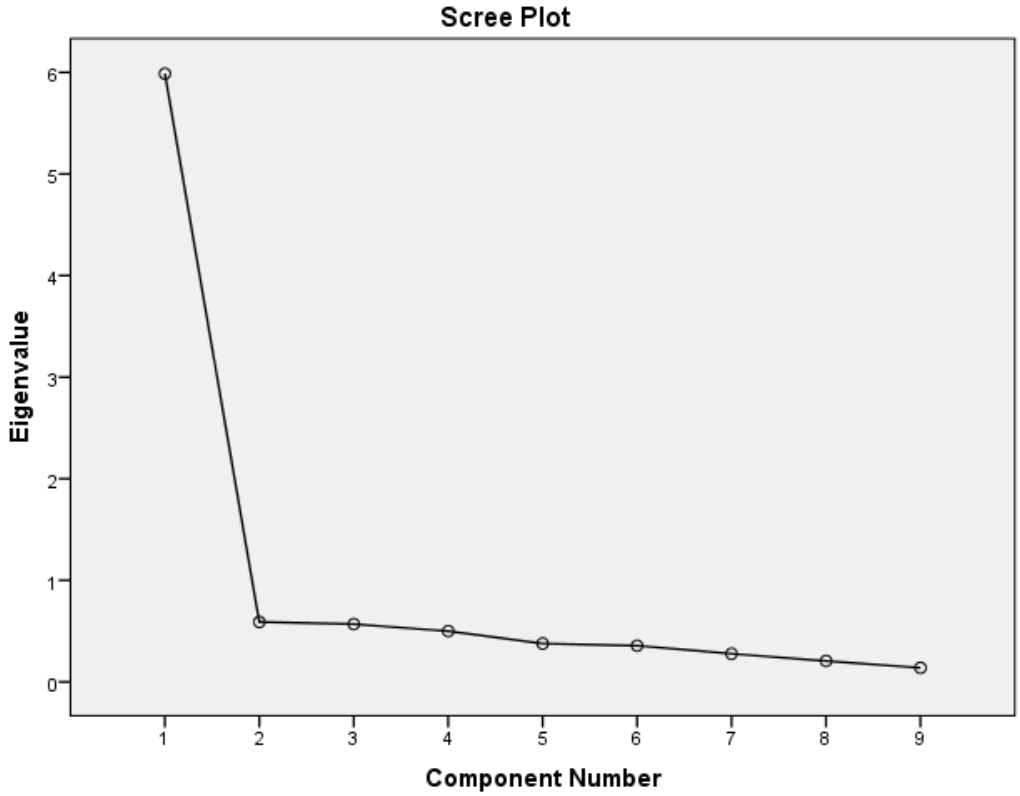
Table 4.6 below shows the eigenvalues variance of the factor; while the first item accounted for the most variance (proportion = 0.6653) out of the total eigenvalues' sum of 9 common variance among the measures. The column of proportion (% of variance) of the total variance that each factor accounts for is also shown in the table. It was observed that the first factor (Green1-"I prefer to buy products that promote environmental conservation awareness) accounted for 66.53% of the total variance.

Table 4.6 Total Variance Explained - New Zealand – 9 items

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.988	66.534	66.534	5.988	66.534	66.534
2	.590	6.553	73.088			
3	.569	6.321	79.409			
4	.499	5.545	84.954			
5	.377	4.194	89.148			
6	.356	3.956	93.104			
7	.277	3.076	96.180			
8	.206	2.284	98.463			
9	.138	1.537	100.000			
Extraction Method: Principal Component Analysis.						

Figure 4.2 is the scree plot for the graphical presentation of Table 4.5. On deciding on the number of factors, according to Kaiser's criterion, nine items should be retained. The scree plot levels out after the first item. After considering the three criteria, (Kaiser's Eigenvalues, Cattell's Scree plot, and the GCS), in this study, 9 items were retained.

Figure 4.2. Scree Plot - New Zealand – 9 items



4.3.2 Results Study 1B (Tanzania participants – Green Dimension only)

Stage one clearly identified one green factor with 9 items and as well the content and face validities of the dimension were stablished. In the next step the study further addressed construct validity by exploring the previously identified factor and green items on a different sub-sample (i.e. Tanzanian participants).

Results:

In the second stage the study applied the same analysis as stage one (the New Zealand Sample). A principal component analysis (PCA) was run on the 9 Green Consumption items on Tanzanian general public respondents. The overall Kaiser-Meyer-Olkin (KMO) measure was 0.894 (Table 4.7), which is greater than 0.7, classifications of 'middling' to 'meritorious' according to Kaiser (1974). Bartlett's Test of Sphericity was statistically significant ($p < .0005$), demonstrating that the data met the criteria that it can be factored.

Table 4.7 KMO and Bartlett's Test – Tanzania – 9 items

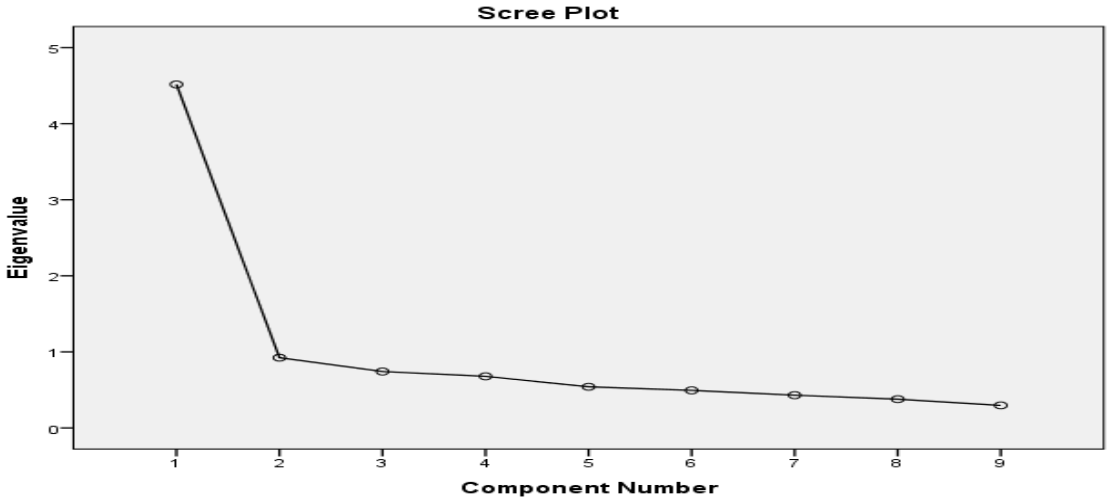
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.894
Bartlett's Test of Sphericity	Approx. Chi-Square	1307.829
	Df	36
	Sig.	.000

In summary, the PCA revealed nine items could form one independent factor, as one-factor solution explained 50.18% of the total variance (Table 4.8). This is because the first component has an eigenvalue of 4.517 and from the second item onwards have eigenvalue below 1. Therefore, from these results there is a high probability that these green construct items can form an independent factor when integrated with CSI scale. The Scree Plot (Figure 4.3) indicated that one factor should be retained (Cattell, 1966). This mean that this one factor solution met the interpretability criterion; henceforth it can be retained as an independent factor in the scale. Those results confirm construct validity by the observed scores the model constructs were > .50; thus suggesting good construct validity (Hair et al., 2010).

Table 4.8 Total Variance Explained – Tanzania – 9 items

Total Variance Explained						
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.517	50.188	50.188	4.517	50.188	50.188
2	.924	10.263	60.450			
3	.742	8.240	68.690			
4	.679	7.540	76.230			
5	.541	6.007	82.238			
6	.494	5.486	87.723			
7	.431	4.784	92.507			
8	.378	4.204	96.712			
9	.296	3.288	100.000			
Extraction Method: Principal Component Analysis.						

Figure 4.3. Scree Plot– New Zealand – 9 items



4.3.3 Results Study 1C

Goal of stage 3 in study one was to explore the previously identified green items in combination with the existing CSI on whole sample combining New Zealand and Tanzania. This stage of study 1 addresses discriminant and convergent validity.

A principal component analysis (PCA) was run on a 33-item questionnaire that measured green consumption on 448 Tanzanian and New Zealand general public respondents. The suitability of PCA was assessed prior to analysis. Inspection of the correlation matrix showed that all variables had at least one correlation coefficient greater than 0.3. PCA revealed nine components that had eigenvalues greater than one and which explained 15.17%, 10.46%, 7.56%, 5.79%, 5.52%, 4.91%, 4.06%, 3.41%, and 3.12% of the total variance, respectively (Tables 4.10 & 4.11); while Table 4.9 indicates that the overall KMO measure was 0.801, which is greater than 0.7, classifications of 'middling' to 'meritorious' according to Kaiser (1974). Bartlett's Test of Sphericity was statistically significant ($p < .0005$), indicating that the data was likely factorable.

This is because the first nine components have an eigenvalue of 1.032 and tenth component onwards has eigenvalue of 0.932, which is below 1 eigenvalues. Therefore, components one to nine are retained and the tenth component onwards are not (Table 4.11). Visual inspection of the Scree Plot (Figure 4.4) indicated that nine factors should be retained (Cattell, 1966). In addition, a nine-factor solution met the interpretability criterion. As such, nine factors were retained (See also Table 4.12).

The nine-factor solution explained 60.0% of the total variance. A Varimax with Kaiser Rotation was employed to aid interpretability. The rotated solution exhibited 'simple structure' (Thurstone, 1947). The interpretation of the data was consistent with the CSI-Green Consumption attributes. The questionnaire was designed to measure with strong loadings of Green Consumption items on Component 1, Perfectionist items on Component 2, Novelty-Fashion items on Component 3, Confused by overcahoice items on Component 4, Brand Loyalty items on Component 5, Recreational items on Component 6, Brand Conscious items on Component 7, Impulsive buying items on Component 8, and Price conscious items on Component 9 (See Table 4.12). Therefore, extracting nine components makes sense from the perspective of our interpretability criterion. Component loadings and communalities of the rotated solution are presented in (Table 4.10).

Table 4.9 KMO and Bartlett's Test – Whole sample (New Zealand and Tanzania) with green and CSI

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.801
Bartlett's Test of Sphericity	Approx. Chi-Square	4257.216
	df	528
	Sig.	.000

Table 4.10 Communalities – Whole sample (New Zealand and Tanzania) with green and CSI

Communalities		
	Initial	Extraction
Green1	1.000	.627
Green2	1.000	.537
Green3	1.000	.576
Green4	1.000	.530
Green5	1.000	.620
Green6	1.000	.491
Green7	1.000	.628
Green8	1.000	.634
Green10	1.000	.471
Perfectionist1	1.000	.661
Perfectionist2	1.000	.670
Perfectionist3	1.000	.565
BrandConsciousness1	1.000	.501
BrandConsciousness2	1.000	.607
BrandConsciousness3	1.000	.626
NoveltyFashionConscious1	1.000	.711
NoveltyFashionConscious2	1.000	.741
NoveltyFashionConscious3	1.000	.604
Recreational1r	1.000	.695
Recreational2	1.000	.650
Recreational3r	1.000	.607
PriceConscious1	1.000	.550
PriceConscious2	1.000	.578
PriceConscious3	1.000	.563
ImpulsivenessCareless1	1.000	.493
ImpulsivenessCareless2	1.000	.599
ImpulsivenessCareless3	1.000	.569
ConfusedOverchoice1	1.000	.703
ConfusedOverchoice2	1.000	.589
ConfusedOverchoice3	1.000	.576
HabitualBrandLoyal1	1.000	.630
HabitualBrandLoyal2	1.000	.625
HabitualBrandLoyal3	1.000	.588
Extraction Method: Principal Component Analysis.		

Table 4.11 Total Variance Explained– Whole sample (New Zealand and Tanzania) with green and CSI

Total Variance Explained									
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.009	15.179	15.179	5.009	15.179	15.179	4.762	14.430	14.430
2	3.452	10.461	25.641	3.452	10.461	25.641	2.303	6.980	21.409
3	2.495	7.562	33.202	2.495	7.562	33.202	2.294	6.951	28.360
4	1.913	5.798	39.000	1.913	5.798	39.000	1.980	6.000	34.360
5	1.824	5.526	44.526	1.824	5.526	44.526	1.895	5.743	40.104
6	1.623	4.918	49.444	1.623	4.918	49.444	1.864	5.649	45.752
7	1.341	4.064	53.509	1.341	4.064	53.509	1.772	5.371	51.123
8	1.127	3.415	56.923	1.127	3.415	56.923	1.607	4.870	55.994
9	1.032	3.126	60.050	1.032	3.126	60.050	1.338	4.056	60.050
10	.932	2.824	62.873						
11	.839	2.543	65.417						
12	.800	2.425	67.842						
13	.751	2.276	70.119						
14	.728	2.206	72.325						
15	.700	2.121	74.446						
16	.675	2.046	76.492						
17	.663	2.009	78.501						

18	.611	1.850	80.351						
19	.591	1.790	82.141						
20	.572	1.733	83.874						
21	.534	1.618	85.492						
22	.506	1.534	87.026						
23	.487	1.477	88.503						
24	.484	1.468	89.971						
25	.457	1.385	91.356						
26	.441	1.337	92.693						
27	.430	1.304	93.997						
28	.399	1.209	95.206						
29	.364	1.104	96.310						
30	.344	1.041	97.352						
31	.330	1.000	98.352						
32	.298	.904	99.256						
33	.246	.744	100.000						
Extraction Method: Principal Component Analysis.									

Figure 4.4. Scree Plot– 33 items

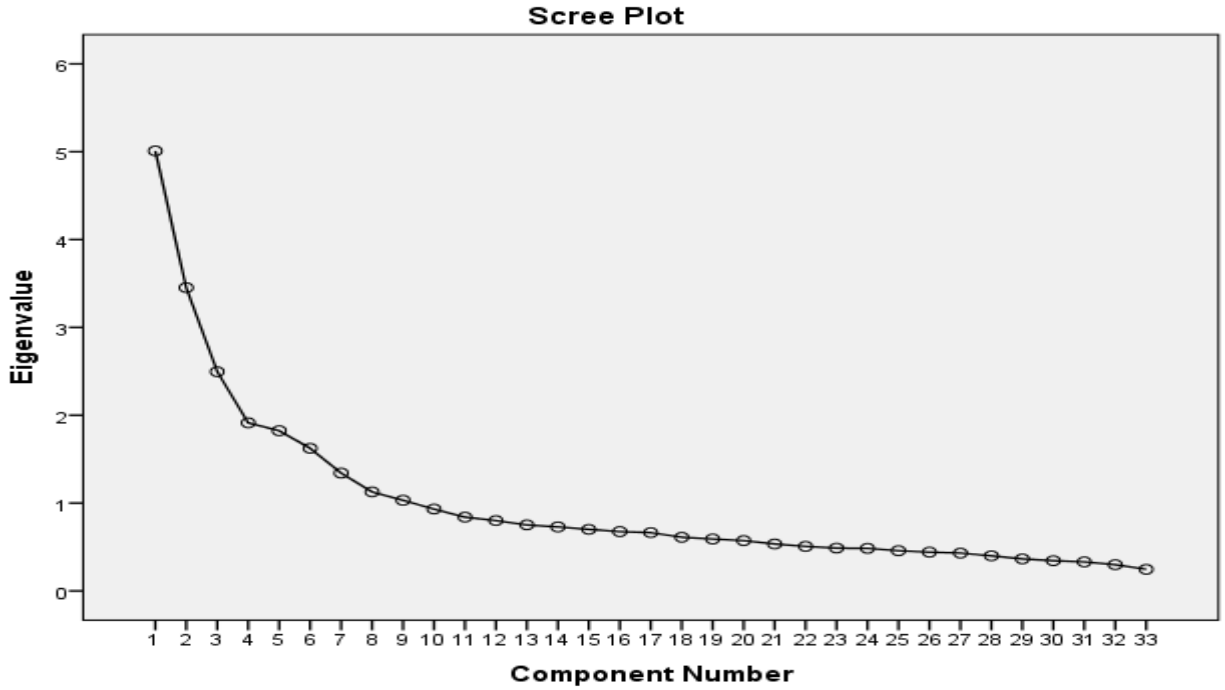


Table 4.12 Rotated Component Matrix

Rotated Component Matrix[a]									
	Component								
	1	2	3	4	5	6	7	8	9
Green1	.763								
Green2	.702								
Green3	.738								
Green4	.692								
Green5	.776								
Green6	.631								
Green7	.747								
Green8	.787								
Green10	.641								
Perfectionist1		.790							
Perfectionist2		.796							
Perfectionist3		.718							
BrandConsciousness1							.649		
BrandConsciousness2							.734		
BrandConsciousness3							.770		
NoveltyFashionConscious1			.809						
NoveltyFashionConscious2			.839						
NoveltyFashionConscious3			.722						
Recreational1r						.826			
Recreational2			.417			-.626			
Recreational3r						.740			
PriceConscious1									.669
PriceConscious2									.667
PriceConscious3		.448							.434
ImpulsivenessCareless1								.559	
ImpulsivenessCareless2								.754	
ImpulsivenessCareless3								.694	
ConfusedOverchoice1				.819					
ConfusedOverchoice2				.756					
ConfusedOverchoice3				.734					
HabitualBrandLoyal1					.775				
HabitualBrandLoyal2					.779				
HabitualBrandLoyal3					.737				
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.									
a. Rotation converged in 6 iterations.									

4.4 Study 1 Summary

In summary, the correlation Matrix results showed a considerable number of correlations were > .3 and had considerable correlations with several other variables. This suggests that this correlation matrix is suitable for factoring; and at least some of the variables may be useable for factor analysis. The Bartlett's Test of Sphericity suggests that a sample correlation matrix differs significantly from identity matrix as there were large correlations observed amongst the variables. With regard to Communalities, each of the initial and extraction communalities were > .3 which suggest that it is appropriate to include each of the 33 items in further analyses (CFA). Variance Explained, suggests the appropriateness of a nine-factor GCS solution and the Scree Plot's last point before flattening curves at the ninth factors which suggests the appropriateness of a nine- factor solution. Pattern Matrix shows that each of the 33 GCS items loaded onto their proposed factor, except for recreational2 and Price conscious, all other loadings were > .5. these results suggest the appropriateness of a 9-factor GCS solution. In study one, this research has successfully achieved to identify key dimensions and structure of the new proposed scale (i.e. Green consumption Scale) through exploratory factor analysis. (EFA).

4.5 Study 2: Confirmatory Factor Analysis (CFA)

4.5.1 Study 2 introduction (Churchill's steps 5-8)

In study 2, Steps 5 to 8 of Churchill (1979) (collect new data, assess reliability and validity and develop norms – see Figure 3.1) respectively were applied. This part of the thesis addresses the analytical procedures undertaken to test GCS conceptual relationships. Specifically, by addressing the nature and directionality of associations between GCS and specific other constructs within a conceptual model (Step 6 of Churchill, 1979). This section provides a validation study of the GCS scale, in addition to fit assessments for the proposed GCS conceptual model (Sproles & Kendall, 1986). This section starts with a justification for the research paradigm adopted, followed by the design, procedures, and structural model components, and a number of validity assessments, including construct validity (Step 7 of Churchill, 1979) then followed by a chapter summary.

4.5.1.1 Justification for Research Approach

Before examining focal GCS conceptual relationships (i.e., antecedents/consequences) within the nomological network, literature addressing the conceptual model and/or theory development process was first reviewed, thus providing a justification for the proposed research approach.

4.5.1.2 Research Paradigm: Holistic Theory Construal

Bagozzi's (1984) widely cited holistic construal paradigm to theory construction posits a focal construct (e.g., GCS) be preceded by relevant antecedents; and may generate specific levels of consequent concepts which may be extended to the realm of GCS (see Chapters 2-3). In theory development, an attributional concept definition is required, which specifies the concept's attributes, characteristics, and/or properties; thus, concurring with Churchill's (1979) construct development step of "carefully defining the construct(s) of interest." As noted, the terms concept and construct are often used interchangeably in the social sciences (Dooley, 1984; see Chapter 3). Following Bagozzi (1984), this part of thesis develops a conceptual model linking GCS to specific antecedents and/or consequences within a nomological network of conceptual relationships, thus extending the research reported in section Chapter 3 (see Chapters 2-3).

4.5.1.3 Conceptual Model

This section introduces the conceptual model for empirical investigation in Study 2, in addition to detailing the development of the associated concept. Based on study 1, GCS is represented by its nine dimensions, which are

- green consumption consumer, consists of 9 items.
- brand conscious/price equals quality consumer, consists of 3 items
- Recreational/hedonistic consumer, consists of 2 items
- Perfectionistic/high-quality-conscious consumer, consists of 3 items
- Impulsive/careless consumer consists of 3 items:
- confused by over-choice consumer, consists of 3 items:

- Habitual/brand-loyal consumer consists of 3 items:
- Novelty-fashion-conscious consumer consists of 3 items:
- Price Conscious and values for money, consisting of 2 items:

4.5.1.4 Objective

Employing the GCS scale and a new sample of 225 Tanzanian and New Zealand-based consumers in relation to obtaining Solar panels, Mobile phones, Chocolate that have low environmental impact or Chocolate purchase frequency as well as preference for local, global, or private label (retailer) brands. An overview of the key CFA results is provided in this section to further inform, and validate the model fit, which represents a critical requirement in scale development research (De Vellis, 2011).

4.5.2 Step 5: Survey Design and Structure

Data were collected through Qualtrics from Tanzanian and New Zealand consumers (n=225). Further, similar to study 1, an online survey was used, which was adapted from the questionnaire adopted in study 1 (see Appendix 3). Specifically, the study 1 questionnaire contained: (i) Section A: Selected demographic information, including age (note: 'under 18' responses were screened out from the survey; see study 1); gender, region, ethnicity, education, and income; (ii) Section B: Information pertaining to the respondents' CSI and Green Consumption Scale (GCS). Further, any reference to the respondents' expected questionnaire completion time commitment was adjusted to 'approximately 15-25 minutes.' Most importantly, the questionnaire included a number of questions to address the predictive validity of the scale. Specifically, participants were asked the extent to which they prefer to buy:- local, global, private or national brands; chocolate and smart phones produced with low environmental impact; vitamin supplements, and solar panels preferences. Ethical approval for the undertaking of this research was obtained from Massey University as stated in Chapter 3. Further, this study chose electronic survey due to its suitability for fast and wide coverage in shorter time advantage over postal and in person surveys.

The questionnaire included demographic questions and psychographic questions. The questionnaire also included questions regarding independent and dependent variables for predictive validity (Deutskens et al., 2004). Further, to minimise the occurrence of recency effects, the sequence of the items measuring each construct was randomised across the respondents (see Chapter 3). The data was collected from 18th July to 21st August 2014.

4.5.2.1 Sampling Method

The procedure of the snowball sample was identical to the one employed in Study 1.[1] Qualtrics software was used to collect the online survey data (see study 1) and then exported to SPSS, which was subsequently linked to Amos (version 24.0) SEM software. In this study, a total of n=225 responses were attained. Respondents were checked against those for Study 1 using IP addresses of the computer network used, with only occasional overlaps found (mostly corresponding to large institutions such as universities), thus reducing the risk of identical respondents.

After undertaking the preliminary analyses, including the descriptive statistics (see Table 4.13; Table 4.14; and Figure 4.5), CFAs were conducted for each of the constructs' measurement models to determine the items appropriate for inclusion in the scale followed by model fit assessments. Further, model construct validity, factor structure, and common method variance analyses and testing were conducted.

After conducting EFA for determining the number of factors and their indicators the next step was to investigate whether the suggested green consumption integrated into the existing scale (the CSI scale) model fits the new data observed using confirmatory factor analysis (CFA). The same procedure as EFA was followed, after data entry to check errors in the database and the underlying assumptions of confirmatory factor analysis before running confirmatory factor analysis.

Table 4.13 Frequency Table- Country-wise

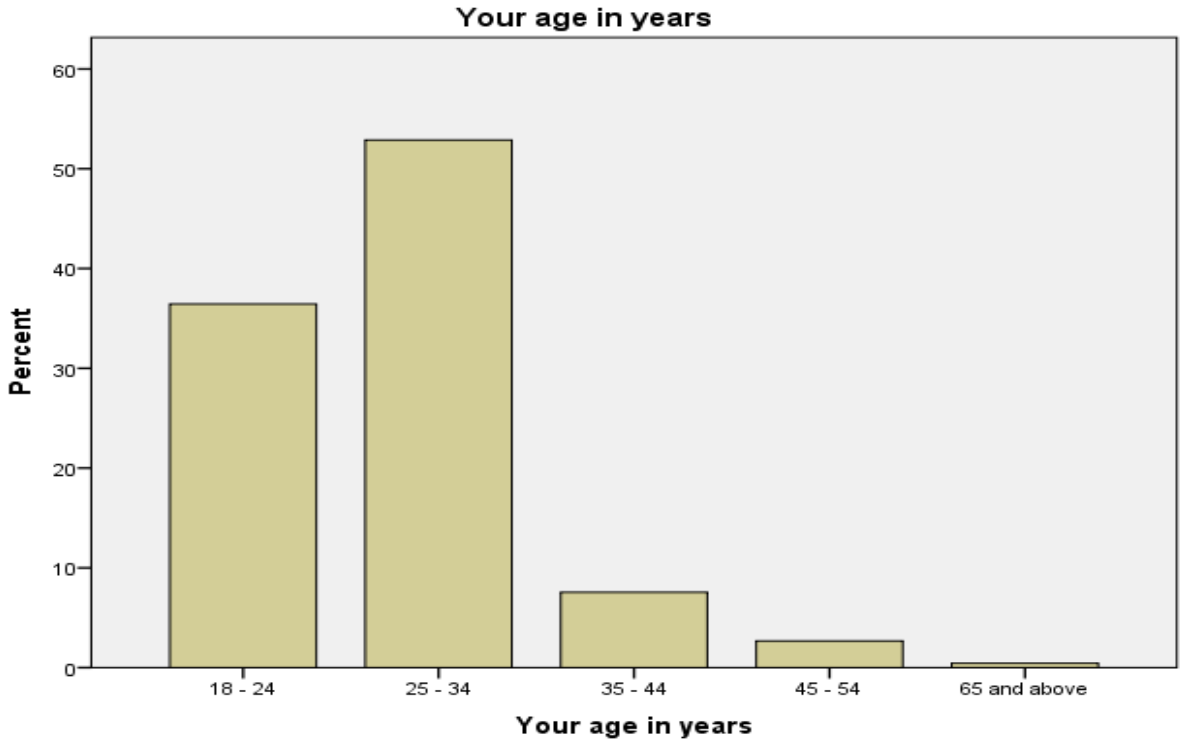
You are currently in					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	New Zealand	74	32.9	32.9	32.9
	Tanzania	151	67.1	67.1	100.0
	Total	225	100.0	100.0	

Table 4.14 Age Distribution Frequency Table

Your age in years					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 24	82	36.4	36.4	36.4
	25 - 34	119	52.9	52.9	89.3
	35 - 44	17	7.6	7.6	96.9
	45 - 54	6	2.7	2.7	99.6
	65 and above	1	.4	.4	100.0
	Total	225	100.0	100.0	

[1] While a larger, representative sample would have been ideal, time and resources prohibited this approach, and a representative sample is less critical for scale validation than for predictions of product choice or market size evaluation.

Figure 4.5 Age Distribution



4.5.3 Results: Confirmatory factor analysis

Confirmatory factor analysis was performed using *SPSS-AMOS-24* software. The fit between the model and the data was assessed using model fit indices, including the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), the normed fit index (NFI), the non-normed fit index (NNFI), root mean square error of approximation (RMSEA), DF ratio, PCLOSE, AGFFI, RMR, SRMR, NFI, TLI, and CFI (Byrne, 2010). The data from the second dataset were used for Confirmatory Factor Analysis (CFA). The aim of conducting CFA was to condense the interrelationships among variables in an accurate and concise way for ease of conceptualisation as well as to confirm the existence of a specific factor structure (Gorsuch, 1997a, 1997b)

In order to determine the criteria, prior to access, model fit, and the factor structure confirmation, several goodness-of-fit statistics for confirmatory factor analysis were evaluated (Byrne, 2010). These included, first, the ratio of chi-square to degrees of freedom (χ^2/df) with an acceptable fit ratio of $\chi^2$to degrees of freedom ≤ 2 or 3. Second, Root Mean Square Error of Approximation (RMSEA) was used to see whether the CSI model will fit the population's covariance matrix. RMSEA values less than 0.05 were considered as indicative of good fit, the range of 0.05 to 0.08 as fair fit, and values greater than 0.10 as a poor fit.

Standardised Root Mean square Residual (RMR) was used to measure the average discrepancy between the samples observed and hypothesized correlation matrices. A value close to 0.08 or less was treated as acceptable model fit. Comparative Fit Index (CFI) and Incremental Fit Index (Marshall, et al.,2008) were used to assess the discrepancy between the chi-squared value of the hypothesised model and the chi-squared value of the baseline model. A cut-off value of 0.9 for CFI and IFI was considered as an indicator of acceptable model fit. There were 225 usable responses in phase two of data collection, which forms study 2 dataset.

Each factor was measured through a number of observed variables, and its reliability as influenced by random measurement error, as indicated by the associated error term. Each of these observed variables were regressed onto its respective factor, and the eight factors are shown to be intercorrelated. Likewise, the numbers next to the error terms in Figure 4.6 are the estimated variances for each item; the numbers next to the one-way arrows (from factors to items) are the regression weights; and the numbers next to the 2-way arrows are the covariances among factors.

On the other hand, in Figure 4.6, the numbers next to the one-way arrows are the standardised regression weights, i.e., the standardized factor loadings; and the numbers next to the two-way arrows are the correlations among factors based on the results of CFA. Note that the higher the factor loadings, the more the variable is associated with the factor.

The results of the fit statistics are summarised as follows (Table 4.15):

- Degrees of freedom – 1.548 which is ≤ 3 indicated an acceptable model fit.
- RMSEA = 0.049, which was less than 0.05 and hence indicated a good model fit.
- Standardised RMR = 0.063, less than 0.077, indicated an acceptable model fit.
- CFI = 0.917 indicated an acceptable model fit.

As a result, the CFA analysis confirmed the factor structure as follows (See Table 4.15):-

- The first factor, green consumption consumer, consists of the following 9 items:
    1. q10_2 I prefer to buy products that are produced in an ethically responsible manner.

2. q10_4 I prefer to buy products that are recyclable.
3. q10_1 I prefer to buy products that promote environmental conservation awareness.
4. q10_7 I prefer to buy products that are certified to be environmentally-friendly.
5. q10_3 I prefer to buy products that are biodegradable.
6. q10_8 I prefer to buy products that adhere to fair trade principles.
7. q10_6 I prefer to buy products that are free of toxins.
8. q10_5 I prefer to buy products that are good for the planet.
9. q10_10 I prefer to buy products that are reducible.

- The second factor, brand conscious/price equals quality consumer, consists of 3 items:
  10. q3_2 the most expensive brands are usually my choices.
  11. q3_3 The higher the price of a product, the better its quality.
  12. q3_1 The well-known national brands are best for me.
- The third factor, recreational/hedonistic consumer, consists of the following 2 items:
  13. q5_3 Shopping the stores wastes my time.
  14. q5_1 Shopping is not a pleasant activity to me.
- The fourth factor, perfectionistic/high-quality-conscious consumer, consists of 3 items:
  15. q2_1 Getting very good quality is very important to me.
  16. q2_2 When it comes to purchasing products, I try to get the very best or perfect choice.
  17. q2_3 In general, I usually try to buy the best overall quality.
- The fifth factor, impulsive/careless consumer, consists of the following 3 items:
  18. q7_1 I should plan my shopping more carefully than I do.
  19. q7_2 I am impulsive when purchasing.
  20. Q7 3 Often I make careless purchases I later wish I had not.
- The sixth factor, confused by over-choice consumer, consists of the following 3 items:
  21. q8_3 The more I learn about products, the harder it seems to choose the best.
  22. q8_1 There are so many brands to choose from that often I feel confused.
  23. q8_2 Sometimes it's hard to choose which stores to shop.
- The seventh factor, habitual/brand-loyal consumer, consists of the following 3 items:

24. q9_1 I have favourite brands I buy over and over.
25. q9_2 Once I find a product or brand I like, I stick with it.
26. q9_3 I go to the same stores each time I shop.

- The eighth factor, novelty-fashion-conscious consumer, consists of the following 3 items:

27. q4_1 I usually have one or more outfits of the very newest style.
28. q4_2 I keep my wardrobe up-to-date with the changing fashions.
29. q4_3 Fashionable, attractive styling is very important to me.

- The Ninth Factor, Price Conscious and values for money, consisting of 2 items:

30. q6_1 I buy as much as possible at sale prices.
31. q6_2 The lower price products are usually my choice.

4.5.4 Step 6: Construct Validity

This section focuses on construct validity assessments undertaken for the model. Validity is defined as the "extent to which a measure or set of measures correctly represents the concept of study - the degree to which it is free from any systematic or non-random error (Hair et al., 1998: p. 3). In contrast to reliability, which refers to the consistency of the measures. In short, validity addresses how well a concept is defined by its measures. Distinct validity classifications and/or terminology have been proposed in the literature. To illustrate, while De Vellis (2003) proposes a tri-partite content-, criterion-related-, and construct validity model, Churchill (1991) adopts pragmatic-, content-, and construct validity.

Following Steenkamp and Van Trijp (1991: p. 283), this section outlines the key criteria for establishing construct validity, which the authors posit "lies at the heart of scientific progress in marketing." Steenkamp and Van Trijp (1991: p. 283) define construct validity as "the degree to which a construct achieves empirical and theoretical meaning" (Bagozzi, 1980; Peter, 1981).

Construct validity is "directly concerned with the theoretical relationship of a variable to other variables" (De Vellis, 2003: p. 53; Cronbach and Meehl, 1955). As such, construct validity reflects the extent to which a measure 'behaves' the way that the construct it purports to measure should behave with regard to established measures of other constructs (De Vellis, 2003: p. 53; Bagozzi, Yi, and Phillips, 1991).

Steenkamp and Van Trijp (1991: p. 283) posit the following criteria should be met to establish construct validity: (i) Uni-dimensionality; (ii) Convergent validity; (iii) Construct reliability; (iv) Stability; (v) Discriminant validity; and (vi) Nomological validity, which are assessed with reference to the model in the following sub-sections.

The factor structure from Study 1 was used with a separate dataset. The reduced-form CSI scale was used along with the 9-item green scale finalised in the EFA and analysed in AMOS (v24) using Confirmatory Factor Analysis.

The 9-item green scale and 8x3-item CSI scales were included (Figure 4.6) and run using standard CFA routines. The model converged but with relatively weak model fit indices (Table 4.15), which is to be expected given the relatively small sample size as well as the sample diversity. Investigating the Standardized Regression Weight estimates suggested removing two measures to improve model fit: 'Recreation 2' (Q5_2) and 'Price_Conscious 3' (Q6_3), and this did substantially improve the overall model fit to acceptable levels (Table4.15, Figure 4.7)

Principal component factor analysis with Varimax rotation (George & Mallery, 2003; Johnson & Wichern, 2014; Pett, Lackey, & Sullivan, 2003; Tabachnick & Fidell, 2013) was used to explore the underlying dimensions of the 33 survey questions of the green consumption–integrated CSI and to determine construct validity. The factor rotation method was implemented in order to allow for some correlation among the factors.

Factor loadings were used as the criteria to determine the construct validity. This is because, the greater the loading, the more the variable is a pure measure of the factor, and thus the higher the construct validity. This study followed the advice by George and Mallery (2003) who suggested that in general the loadings in excess of 0.71 are considered excellent, 0.63 are considered very good, 0.55 are considered good, 0.45 are considered fair, and 0.32 are considered poor (Nunnally and Bernstein, 1994; Steenkamp and Van Trijp, 1991). To measure the constructs of interest, specific sets of multiple-item scales were employed (Jarvis et al., 2003).

Figure 4.6: Structural Model

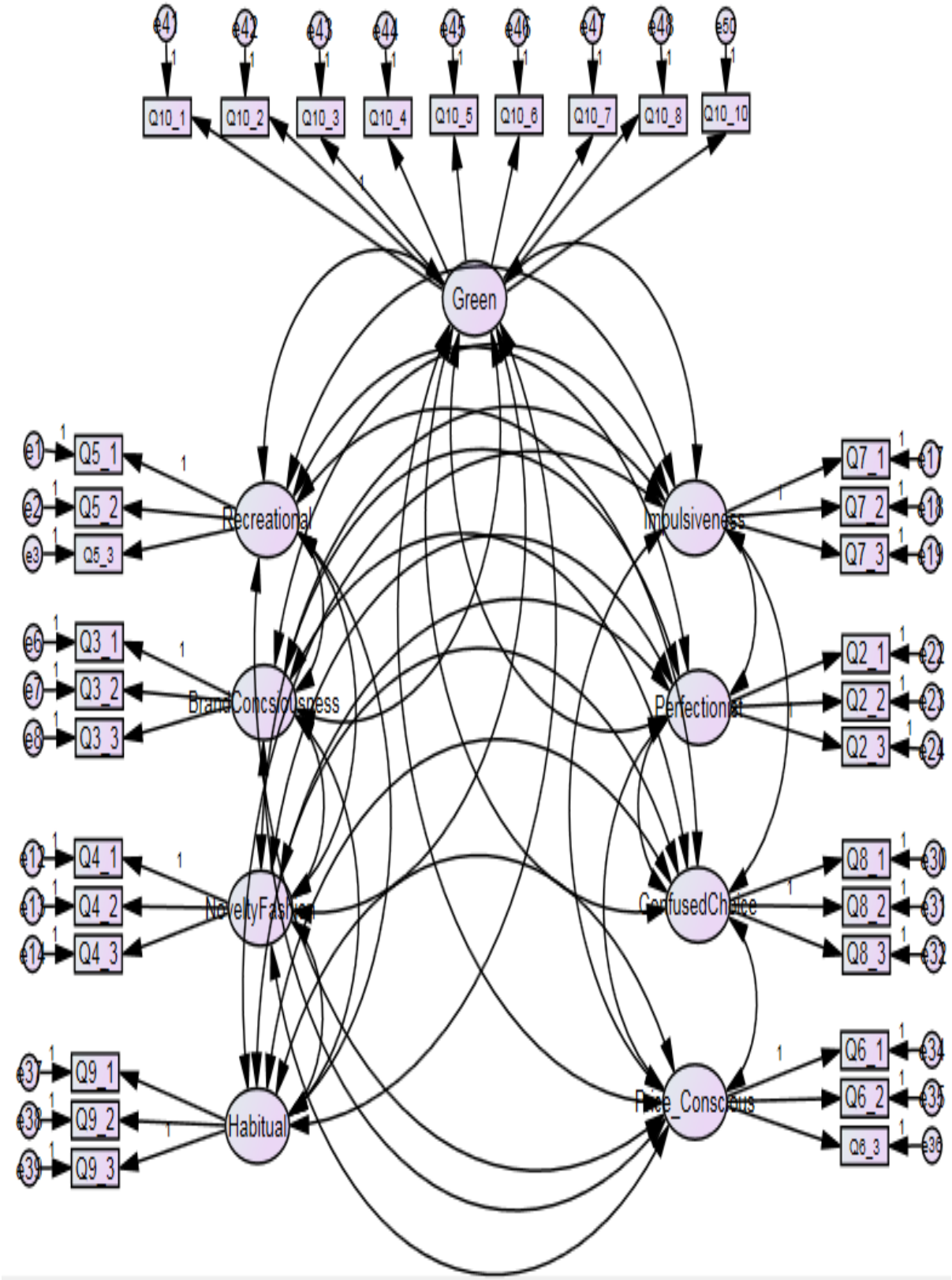


Table 4.15 SEM Fit Index

SEM Fit Index	Reduced CSI (3-item) scales	Final CFA model	Recommended Fit Thresholds*
CMIN/DF	1.648	1.548	low
RMSEA	0.054	0.049	<.07
RMSEA Hi90	0.061	0.057	<.08
PCLOSE	0.178	0.539	(>.05)**
GFI	0.832	0.852	>.95
AGFI	0.795	0.815	>.95
RMR	0.077	0.063	small
SRMR plugin	0.0708	0.0583	<.08
NFI	0.767	0.801	>.95
TLI	0.874	0.903	>.95
CFI	0.891	0.917	>.95

* Hooper, Coughlan and Mullen (2008)
** StatWiki

Figure 4.7. Standardised regression weights

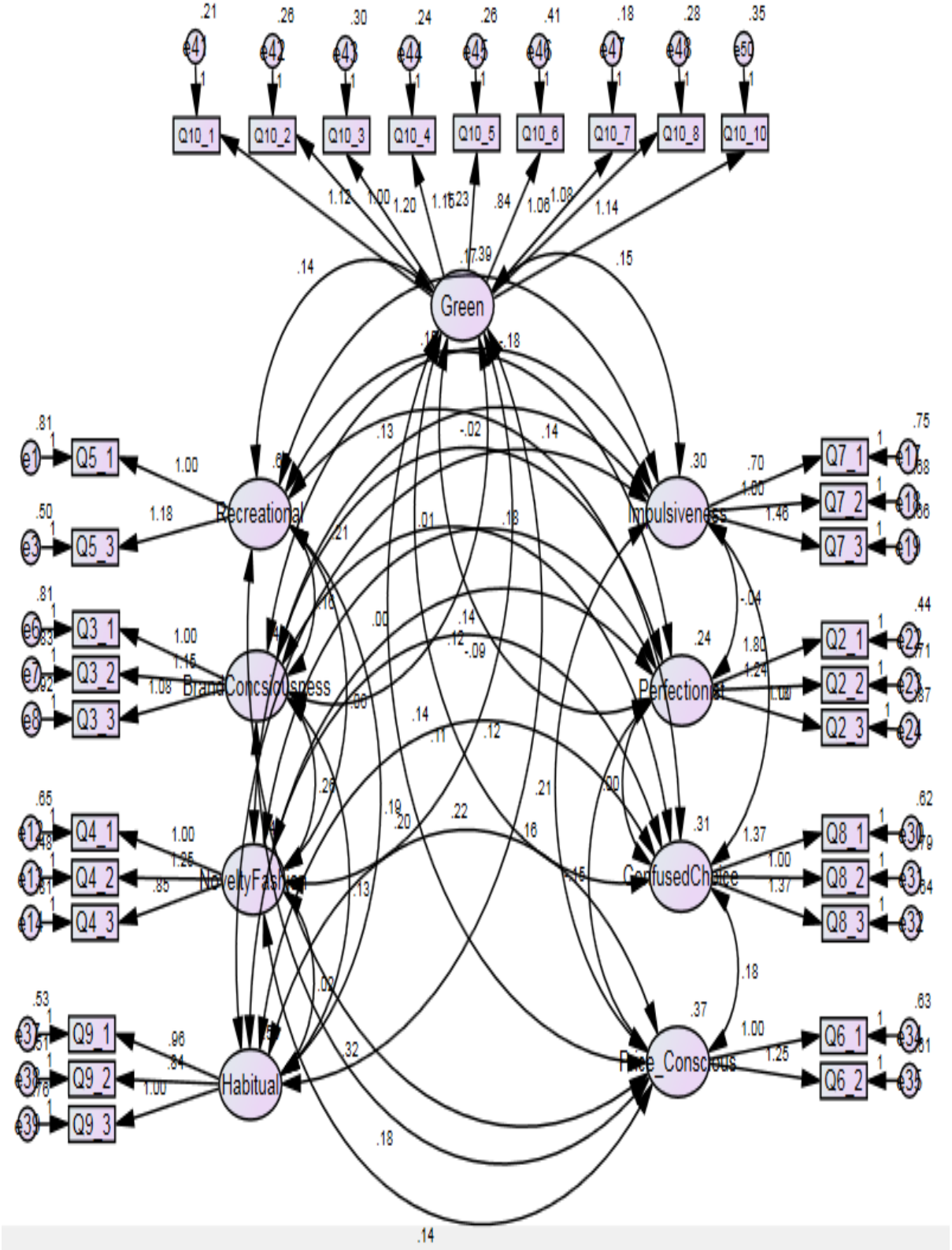


Table 4.16 Standardised Regression Weights

Measure		Construct	Standartdized Regression Weight Estimates
Q5_3	<---	Recreational	0.807
Q5_1	<---	Recreational	0.674
Q3_3	<---	BrandConcsiousness	0.616
Q3_2	<---	BrandConcsiousness	0.657
Q3_1	<---	BrandConcsiousness	0.61
Q4_3	<---	NoveltyFashion	0.55
Q4_2	<---	NoveltyFashion	0.784
Q4_1	<---	NoveltyFashion	0.654
Q9_3	<---	Habitual	0.648
Q9_2	<---	Habitual	0.662
Q9_1	<---	Habitual	0.702
Q7_2	<---	Impulsiveness	0.55
Q7_3	<---	Impulsiveness	0.701
Q7_1	<---	Impulsiveness	0.406
Q2_3	<---	Perfectionist	0.468
Q2_2	<---	Perfectionist	0.586
Q2_1	<---	Perfectionist	0.802
Q8_2	<---	ConfusedChoice	0.532
Q8_3	<---	ConfusedChoice	0.691
Q8_1	<---	ConfusedChoice	0.696
Q6_1	<---	Price_Conscious	0.612
Q6_2	<---	Price_Conscious	0.699
Q10_2	<---	Green	0.773
Q10_3	<---	Green	0.807
Q10_4	<---	Green	0.827
Q10_5	<---	Green	0.832
Q10_1	<---	Green	0.838
Q10_6	<---	Green	0.634
Q10_7	<---	Green	0.842
Q10_8	<---	Green	0.784
Q10_10	<---	Green	0.766

4.5.5 Step 7: Predictive Validity

The final CFA model was used to construct the latent variables (using the data imputation routine) which is an important part of Step 7 of Churchill (1979), with these factors analysed with linear regression on a range of dependent variables also captured in the survey (See Chapter 3 – Methodology).

The objective of the regressions analyses was to demonstrate predictive validity of the Green factor in the context of the other factors of CSI scale. The results of the corresponding regression analyses are presented in Table 4.17. In general, to test the predictive validity of the scale (within of Consumer Decision-Making Styles (CDMS), it was important to establish that the green factor predicts consumer preferences and

activities related to green consumption better than the other factors, while the other factors should predict the respective consumer preferences better than the green factors. Specifically, the green factor predicted (had positive and significant effect on) consumer preferences associated with green consumption such as (Solar panels Green (beta= 0.634, p<. 0.001), together with other logical factors (such as price consciousness (beta=0.701, p=0.05) and perfectionism (beta=0.730, p< 0.001) as well as confusion by choice (which had a negative effect ((beta=-0.293, p=0.09)). Further, the green factor was a stronger predictor for preference for mobile phone with longer battery lives (beta = 0.587, p= 0.00) than other logical factors (habitual (beta=0.334, p=0.04) and brand consciousness (beta=-0.320, p=0.05). Finally, the green factor also predicted the likelihood to buy chocolate with low environmental impact- Green (beta = 0.708, p= 0.00) better than the other factors (price consciousness (beta=0.687, p= 0.07) and impulsiveness (beta= -0.434, p= 0.05). At the same time, as expected it does not predict how frequently consumer buy chocolate in general (p > .20).

Further, in addition to more direct measures of the green consumption, the green factors predictions correspond to the recent findings in the preference for local and global brands (Steenkamp, Batra, & Alden, 2003). Specifically, consistent with the ideas that environmentalism orientation (which is related to the green factor) should increase preferences for the local brands, but not global brands (Steenkamp & de Jong, 2010). The results of the regression model number 1 (Table 4.17) suggest that green and perfectionist factors have significant and positive effect on preference towards solar panels (beta= 0.634, p=.00 and beta=0.730, p=0.00 respectively).

Further, results from model number 2 shows that green factor has significant influence when consumers make decision to buy Smartphones in relation to mobile battery life (beta=0.587, p=.00). Results from model number 3 indicates that Green factor also has a predictive influence on buying of chocolate (beta=0.587, p=0.00). At the same time the results from model number 4 shows that all 9 factors do not have Signiant influence on the frequency of chocolate purchase.

The results of the regression model number 5 Table 4.17) that green factor has positive and significant effect on preference towards local products (beta= 0.275, p=.02), while it has no significant effect of preference towards global brands (p>. 17, regression model number. 6). The results of model number 6 are also consistent with the idea that consumers buy global brands because of their association with prestige and high quality or standardized pricing (Steenkamp, Batra and Alden, 2003), therefore the respective factors of perfectionism (beta= 0.517, p= .08) and recreational (beta=-0.421, p=0.00) as well as price consciousness (beta=0.842, p=0.05) were significant predictors, unlike the green factor (beta = 0. 199, p= 0.13). Results for model number 7 are also consistent with the notion that consumers believe that private label products can offer the same or even better quality than national brands, but at a lower price. This is evidenced by results from Price consciousness (beta=1.315, p=0.00), Perfectionist (beta=0.465, p=0.08), and Brand Consciousness (beta= 0.058, p=0.69).

The results of the regression analyses support the predictive validity of the Green Consumption Scale within the context of Consumer Decision-Making Styles (CDMS) This is because the Green Consumption Scale is strongly and positively related to products with a green dimension, while has an insignificant effect on consume preferences for products unrelated to green consumption.

Table 4.17 Predictive Validity

	Model 1			2			3			4		5			6			7		
Factors	"I would like to have solar panels on my house"			mobile battery life"			chocolate low environmental impact			Chocolate frequency		prefer to buy local			prefer to buy global			prefer to buy private label (retailer) brands		
(Constant)	1.079	**	(0.482)	0.381		(0.587)	1.152	**	(0.517)	0.776	(0.606)	5.354	***	(0.534)	6.088	***	(0.593)	5.362	***	(0.530)
Green	0.634	***	(0.108)	0.587	***	(0.133)	0.708	***	(0.120)	-0.030	(0.137)	0.275	**	(0.120)	0.199		(0.133)	0.066		(0.119)
Habitual	0.114		(0.137)	0.334	**	(0.166)	-0.068		(0.144)	0.027	(0.172)	0.265	*	(0.150)	0.080		(0.167)	-0.003		(0.150)
Price Conscious	0.701	*	(0.359)	0.345		(0.440)	0.687	*	(0.380)	-0.383	(0.454)	1.243	***	(0.397)	0.842	*	(0.442)	1.315	***	(0.395)
Confused Choice	-0.293	*	(0.175)	0.036		(0.215)	-0.180		(0.190)	0.164	(0.223)	-0.038		(0.196)	0.183		(0.219)	-0.061		(0.198)
Perfectionist	0.730	***	(0.243)	0.308		(0.298)	0.236		(0.264)	0.300	(0.306)	0.466	*	(0.269)	0.517	*	(0.299)	0.465	*	(0.267)
Impulsiveness	-0.331		(0.210)	-0.061		(0.258)	-0.434	**	(0.221)	0.369	(0.263)	-0.489	**	(0.231)	-0.277		(0.256)	-0.305		(0.229)
Novelty Fashion	-0.079		(0.138)	0.011		(0.166)	-0.071		(0.142)	0.173	(0.171)	-0.055		(0.150)	0.019		(0.167)	-0.034		(0.149)
Brand Concsiousness	-0.208		(0.134)	-0.320	*	(0.164)	-0.012		(0.145)	0.070	(0.170)	-0.147		(0.149)	-0.044		(0.167)	0.058	*	(0.148)
Recreational	0.084		(0.118)	0.083		(0.143)	0.119		(0.127)	0.210	(0.149)	-0.086		(0.130)	-0.423	***	(0.145)	0.034		(0.131)
R2	0.263			0.273			0.311			0.088		0.304			0.147			0.309		
F (sig)	8.836			8.848			9.916			2.314		10.342			4.052			10.487		

4.5.6 Step 8: Norms

Finally, in order to establish norms (Step 8, of Churchill, 1979); this study found that on average consumers from both Tanzania and New Zealand are green conscious consumers (M=3.46, SD=0.60). A one-sample t-test was run to determine whether Green conscious score in recruited subjects was different to normal, as defined as a green conscious score of 3.0. Green conscious scores were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$) (Shapiro & Wilk, 1965) and there were no outliers in the data, as assessed by inspection of a boxplot (Data are mean ± standard deviation). Mean green score (3.46 ± 0.60) was higher than the normal green score of 3.0, a statistically significant difference of 0.46 (95% CI, 0.54 to 0.38) than a normal score of 3.0, $t(224) = 11.482$, $p = .000$, $d = 1.30$. This difference is also practically significant. Therefore, it can be concluded that the population means are (statistically significantly) different; meaning that the sample's mean is statistically significantly different from the population mean.

Table 4.18 One Sample Statistics

One-Sample Statistics						
	N	Mean	Std. Deviation	Std. Error Mean		
Green	225	3.4641	.60624	.04042		
One-Sample Test						
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Green	11.482	224	.000	.46407	.3844	.5437

In general, there were 74 New Zealand respondents and 151 Tanzanian respondents. Interestingly Tanzanian consumers are more green conscious (3.5 ± 0.59) than New Zealanders (3.3 ± 0.62) (Independent Samples t-test Table 4.19 below.

Table 4.19. Group Sample Statistics: Two-sample t-test NZ vs Tanzania

Group Statistics					
	You are currently in	N	Mean	Std. Deviation	Std. Error Mean
Green	New Zealand	74	3.3295	.62526	.07268
	Tanzania	151	3.5300	.58760	.04782

There were 151 Tanzanian and 74 New Zealand participants. An independent-samples t-test was run to determine if there were differences in green conscious consumption between the two samples. There were no outliers in the data, as assessed by inspection of a boxplot. Green conscious consumption scores for each group were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .140$); inferring that the population variances of the green conscious consumption scores for both groups are equal; hence meeting the assumption of homogeneity of variances. The green conscious consumption was more appealing (higher)

to Tanzanian consumers (3.5 ± 0.59) than New Zealanders (3.3 ± 0.62). There was a statistically significant difference in mean green consumption conscious score between Tanzanian and New Zealand consumers, with Tanzanian consumer sample scoring higher than the New Zealand one, 0.20 (95% CI, -0.38 to -0.03), $t(223) = -2.354$, $p = .019$. (Table 4.20).

Table 4.20: Independent Samples Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Green	Equal variances assumed	2.190	.140	-2.354	223	.019	-.20052	.08517	-.36836	-.03269
	Equal variances not assumed			-2.305	137.345	.023	-.20052	.08700	-.37256	-.02848

4.6 Study2 Summary

CFA was undertaken to further assess the GCS scale in study 2 which validated the nine-factor, 31-item GCS structure (Table 4.17). The findings indicated the attainment of highly similar means on GCS items across the two samples; thus, providing preliminary evidence for the robustness of the GCS scale across samples and cultures. Furthermore, adequate Cronbach's alphas were reported for each of the proposed GCS factors, in addition to the overall GCS scale.

CFA was also conducted to confirm the nine-factor, 31-item GCS scale. Further, regression analyses specifying GCS nine factors model was also undertaken as well as adopting the scale in Tanzania and New Zealand contexts. The validation of the newly developed GCS measure was undertaken as well.

4.7 Summary of Chapter 4: Green Scale and CSI Analysis

In summary, a series of EFA and CFA procedures were undertaken to further assess the GCS scale in study 1 and 2. This chapter started with an overview of the study 1 research design and procedures (section 4.2); followed by an outline of the EFA design/results in sections 4.2.1. Specifically, the EFA results substantiated the nine-factor, 31-item GCS structure (Table 12).

The findings indicated the attainment of highly similar means on GCS items across the two samples; thus, providing preliminary evidence for the robustness of the GCS scale across samples and cultures. Furthermore, adequate Cronbach's alphas were reported for each of the proposed GCS factors, in addition to the overall GCS scale.

CFA was also conducted (section 4.3), which served to confirm the nine-factor, 31-item GCS scale. Further, regression analyses specifying GCS nine factors model was also undertaken as well as adopting the scale in Tanzania and New Zealand contexts. The validation of the newly developed GCS measure was undertaken.

4.8 Summary of Part II – Green Scale Development and Validation

This section comprised two chapters, chapter three and four. Chapter 3 provided an overview of the qualitative research undertaken to explore and understand the green consumption concept. This included theoretical rationale for adopting scale development research; an overview of the proposed mixed methods research methodology; specifications of Green Consumption Concept followed by an overview of the qualitative research design, qualitative data-analytical techniques and procedures adopted in this research. Key qualitative research findings were documented in section 3.6, which included the development of the proposed GCS definition, antecedents, and consequences.

The next chapter (i.e. Chapter 4) proceeded with the next step in scale development and validation process. The chapter was divided in two parts (i.e. study 1 and study 2 respectively). Study 1 dealt with Exploratory Factor Analysis (EFA), and study 2 dealt with Confirmatory Factor Analysis (CFA)/SEM. The results attained from EFA indicated that a nine-factor structure was found to suitably represent the underlying GCS factor structure. An overview of the specific 31 items retained for further analyses were provided (Table 4.12). This proposed EFA-derived factor structure was further tested using a confirmatory factor-analysis (i.e., CFA) approach presented in study 2 of Chapter 4. The chapter provided outlined the key procedures, emerging findings, item reduction and scale dimensionality assessment. Overall, the findings suggested the appropriateness of a 31-item, nine-factor (i.e., green consumption, brand conscious, Recreational, Perfectionistic, Impulsiveness, confused by over-choice, Habitual/brand-loyal, Novelty-fashion-conscious, and Price Conscious) GCS factor structure. Moreover, reliability (i.e., internal consistency) analyses were conducted, which generated adequate Cronbach's alphas for each of the proposed GCS dimensions, in addition to the full, preliminary GCS scale. Overall, the results attained in steps 1 and 2 of study 1 concurred regarding their suggested suitability of a 31-item, nine-factor GCS scale comprising the specific GCS dimensions mentioned above.

Furthermore, based on the findings, a nine - factor GCS solution was selected (see section 4.5.1.3). This concurs with the literature-, qualitative research-, and initial EFA findings (see Chapters 2-3). There were two cross-loadings (see Table 4.12; Recreational2: "Going shopping is one of the enjoyable activities of my life" which cross loads with Novelty- Fashion Conscious factor; and Price Conscious3: "I look carefully to find the best value for the money" which cross loads with Perfectionist factor). These two cross loadings to a certain extent reduced the overall clarity of the proposed factor solution. Still, the proposed nine-factor

solution was adopted for further analyses based on the results, which suggested that the model provided an adequate fit to the data.

The newly developed GCS scale was subjected to further empirical scrutiny by means of conducting confirmatory, factor-analysis (CFA) using a new dataset to generate the final GCS scale. The results indicated the nine GCS constructs were found to significantly affect the dependent variables.

Based on the analyses, adequate construct validity was established for the model in the context of the present data (Steenkamp and Van Trijp, 1991; section 4.5.3; Table 4.15; and Figure 4.6). CFA for the construct measurement was conducted resulting in a final 31-item GCS scale (see Tables 4.14 - 4.16). Further, investigation of the structural model component suggested the model provided adequate fit to the data, which included assessments of acceptable model construct validity (see section 4.5.3).
In general, the collective purpose of studies 1 and 2 was to follow the steps of scale development and validation (Churchill, 1979) (via qualitative research, exploratory factor analyses, confirmatory factor analyses and regression to assess the predictive validity).

4.8.1 Key findings

Given that each of the subsequent factors had a variance of less than 1, the findings suggested the adoption of a nine-factor structure. Cattell (1966), by contrast, advocates the examination of the scree plot, rather than the Eigen values, to direct the development of a superior factor solution. The examination of the correlation matrix indicated that a considerable number of correlations were .3; thus, suggesting that the matrix was suitable for factoring (Coakes and Ong, 2011: p. 132; Holmes-Smith, 2011: p. 1.6). Further, concurring with the findings from EFA, a substantial number of the variables had considerable correlations with 2 other variables; thus, suggesting that at least some of the variables may be useable in factor-analytic procedures (Holmes-Smith, 2011: p. 1.6).
Next, the rotated factors indicated that the nine items comprising factor 1 (i.e., Green Consumption) clustered together; suggesting these variables are closely correlated and form one factor. Similar, trend is exhibited on the remaining eight factors from the original CSI scale by Sproles and Kendall (1986). A summary of the EFA findings is provided in Table 4.12. Specifically, the findings suggested the appropriateness of a nine-factor, 31-item GCS structure. Overall, the factor loadings were strong (i.e., above .40), and met the criteria for statistical significance.
By means of undertaking a series of confirmatory factor-analysis procedure, the newly developed GCS scale is subjected to further empirical investigation and the results were as expected, with the most respondents (both from Tanzania and New Zealand) reporting to purchase green products. Further, the findings suggested that the respondents reporting to use the green products relatively frequently tended to think about the green products more and derive greater levels of green consumption positive affect while using the green products, relative to those respondents who reported using the green products less frequently.

Based on the findings, a nine-factor GCS solution was selected; thus, concurring with the literature-, qualitative research and initial EFA informed findings (see Chapters 2-4). Further, EFAs were also undertaken using pre-specified nine factor solutions; the results, however, indicated the occurrence of multiple cross-loadings for specific items (Table 4.12), thus generating reduced overall clarity of the proposed factor solution. Consequently, the proposed nine-factor solution was adopted in further analyses. The next section addresses a series of independent samples t-tests comparing the study 2-3 findings, which were derived from different populations.

From the above exhibited findings, it can be concluded that the GCS concept as a measurement tool has relevance in consumer decision-making research; exhibiting significant associations with other marketing constructs (e.g., consumer behaviour). Hence, it can be used to predict consumer behaviour outcomes; specifically, green consumption behaviour.

Finally, based on the present findings, the newly developed GCS scale seems to be a reliable and valid measurement instrument, which may serve to enhance scholarly and/or managerial insights regarding GCS-related consumer behaviour dynamics.

The next chapter proceeds by providing an overview of the key research contributions, limitations, and associated future research directions in this emerging area.

PART III:

CONTRIBUTIONS AND FUTURE DIRECTIONS

CHAPTER 5: CONTRIBUTIONS, LIMITATIONS AND FUTURE DIRECTIONS

5.1 Introduction

Chapters 1-4 addressed the GCS concept and scale development procedures. This chapter presents and overview of the key contributions, key research limitations and future research directions. The chapter is structured as follows. An overview of the study in section 5.2; key contributions arising from this research is provided in section 5.3; followed by an overview of key research limitations and future directions in section 5.4. Section 5.5 presents a chapter summary.

5.2. An Overview

As introduced by Sproles and Kendall (1986), the concept of *Consumer Decision-Making Styles* (CDMS) denotes the way consumers steer their buying-decision process regarding information search, evaluation, selection, and purchases. Sproles and Kendall (1986) identified 8 consumer decision making styles dimensions: Perfectionism; Brand consciousness; Novelty-fashion consciousness; Recreational/Hedonistic shopping consciousness; Price & value-for-money consciousness; Impulsiveness; Confusion from over-choice; and Brand Loyalty. Due to its comprehensive nature, CDMS has become an important tool for marketers for effective market profiling, segmentation, and positioning (Durvasula, Lysonski, & Andrews, 1993; Walsh, Thurau, & Mitchell, 2001; Wang, Siu, & Hui, 2004), as well as for understanding Consumers' cultural differences in buying decision and product adoption (Walsh, Mitchell, & Hennig-Thurau, 2001).

The recent trend has shown that despite the popularity of CSI inventory it has failed to capture and incorporate recent consumer trends, such as green or organic consumption (Wang et al., 2004; Yasin, 2009; Dumortier et al., 2017). Capturing and incorporating green consumption dimensions in CSI scale is of paramount importance. This is because the trend of consumers buying green products has shown an upward trend (Laroche, Bergeron, & Barbaro-Forleo, 2001) whereby consumers have been showing an increased tendency of avoiding or buying products based on the products' impact on the environment and are willing to pay more for green products (Coddington, 1993). There is also an increasing tendency of consumers to respect and prefer eco labels (Bougherara & Piguet, 2009) .

Further, CDMS research has been conducted in a wide range of country- and product-specific contexts such as America, Asia-Pacific, and Europe (Section 2.5). However, the majority of this research has been done in developed countries, yet it is unclear whether CSI also applies to developing countries such as Tanzania. This is a gap in body of knowledge that need to be addressed.

Hence, based on the gap highlighted above, the goal of this study was to develop a new research product called Green Consumption Scale (GCS) and to validate this scale within the New Zealand (developed country) and Tanzanian (developing country) green consumption contexts. Since there is a scarcity of CDMS studies in Tanzania (and in Africa more generally), the newly developed consumption instrument will be of a great importance for researchers, consumers, marketers and other organizations that work with consumers in

these developing countries. It was intended that it will provide researchers with a valid and reliable instrument for measuring green consumption style objectively. Moreover, this study provides insight for consumers and other interested stakeholders who work on the area by identifying the most dominant green-consumption style in the said countries.

In line with the above argument, this study aimed at addressing two major CDMS gaps in this regard. First, to ensure the developed GCS captures the recent developments in the green consumption domain, and secondly, to ensure that the measure is generalizable across both developed and developing countries. This was done by developing, validating, and examining a scale named the GCS scale on consumers' purchasing decision-making of different products across both emerging (Tanzania) and developed country New Zealand contexts.

Since there is no documented CDMS studies for Tanzania, developing and validating a suitable green-consumption CSI scale in the context of developing country like Tanzania contributes to the research on environmental issues in emerging countries because such studies are often limited or absent in the context of the emerging economies (Biswas & Roy, 2015; Saxena & Khandelwal, 2010)

Based on the literature review, a need for the "Green" scale has been identified (see Section 2.6). Churchill (1979) scale development procedure was adopted. Step 1 the domain of construct was specified (Chapter 2). Step 2 Construct items were generated (chapter 3), Step 3 quantitative data were collected to purify the items (Step 4). In Step 5 a second data set was collected, and in Step 6 the reliability test was conducted to determine internal consistency of the construct, followed by Step 7 which assessed validity (convergent, discriminant, and predictive validities) of the construct (Chapter 4). Finally, step 8 whereby the norms were developed by establishing descriptive statistics (means and deviations) were also undertaken in Chapter 4. The techniques as discussed below.

The first step described by Churchill (1979) the domain construct specification to explore and identify the types GCS dimensions exercised both in Tanzania and New Zealand whereby qualitative data were gathered using focus group following research ethics clearance. In the discussion, participants were asked to first elicit, identify, and define each of the emerged items of GCS.

Next, In step 2 and 3 of Churchill (1979) focus group participants were asked to list indicators to represent each of the identified consumption style. After the first focus group discussion session, the second session was conducted to obtain feedback on appropriateness of GCS items identified in the first focus group discussion session. In the second focus group session, the generated items were presented to the focus group participants one at a time and the discussion focused on the definitions given and how the item could be improved. In the same step 2 of Churchill (1979), following item generation, the list of the resulting items was presented to the expert judges for assessing their content validity. The expert judges consisted of nine volunteer professionals, from academia and practice who are knowledgeable in the topic and/or scale development. Content validity was then assessed using Lawshe's (1975) content validity ratio formula. For this purpose, the judges were requested to rate each item as (1 = not representative, 2 = somewhat representative, and 3 = completely representative) (Diamantopoulos, 2005; Lawshe, 1975; Wilson, Pan, &

Schumsky, 2012) in line with the definitions given for each consumption style. After expert judges results, Step 3 which is data collection followed ready for step 4 of below.

In step 4 (i.e. purify measure-study 1A - New Zealand participants – Green Dimension only) aimed at addressing content and face validities of the proposed GCS model through EFA using principal component analysis with Varimax rotation and explored the underlying dimensions of the survey questions on the 10 green consumption items. Factor loadings were used as the criteria to determine the construct validity using the following criteria; First, Kaiser's to compute the Eigenvalues for the correlation matrix and determine how many of the eigenvalues to be included in the scale. The inclusion criterion was that only eigenvalues ≥ 1 were to be included in the model. Second, Cattell's scree plot criterion was used to plot eigenvalues, paying attention to spots in the plot where the plot abruptly levels out.

To determine the appropriateness of the model, the anti-image correlation matrix was examined using Kaiser-Meyer-Olkin and Bartlett's tests. The results showed that the green consumption model was appropriate and a good fit. The diagonals of the anti-image correlation matrix were all over 0.6, supporting the inclusion of each item in the factor analysis. It was confirmed that all items shared some common variance with each other. KMO measure of sampling adequacy (MSA) was 0.914, which suggested a likelihood of a factor structure underlying the data and that it was appropriate to include the items in the model. Furthermore, Bartlett's test of sphericity was significant ($p < 0.001$), indicating that the correlation matrix was not an identity matrix; and can be factored, as large correlations were observed amongst the variables; hence it was appropriate to have the items in the model.

However, the communalities result of nine out of ten factors exceeded the minimum criteria of 0.5; and one item namely "re-usable" did not meet the criteria, it loaded at 0.457, which is below the cut-off point. This may mean that re-usability of a product is not one of the key factors influencing New Zealand consumers' green consumption decision. This item was removed from green consumption dimension, thereafter, EFA was conducted again on the remained nine items of the construct. The result from the second EFA confirmed all nine items as they were above 0.5 threshold indicating that these items do share some common variance with each other, thus suggesting the existence of sufficient linear association among the variables. Likewise, Bartlett's test of sphericity was significant ($p < 0.001$), as it showed large correlations amongst variables which means the correlation matrix was not an identity matrix.

Results from study 1B (Tanzania participants – Green Dimension only) on the 9 items through a principal component analysis (PCA) showed the overall Kaiser-Meyer-Olkin (KMO) measure was 0.894, which is greater than 0.7, and Bartlett's Test of Sphericity was statistically significant ($p < .0005$), demonstrating that the data met the criteria that it can be factored. Therefore, from these results the green construct items can form an independent factor when integrated with CSI scale. Those results confirm construct validity as the observed scores were > .50.

Study 1C (combined data set, all items; CSI (reduced form (3 items) and green) was conducted aiming at exploring previously identified green items in combination with the existing CSI on whole sample combining New Zealand and Tanzania. This stage of study 1 addressed discriminant and convergent validitiees. At this stage, a principal component analysis (PCA) was run and showed that all variables had at least one

correlation coefficient greater than 0.3. PCA revealed nine components that had eigenvalues greater than one and which explained 15.17%, 10.46%, 7.56%, 5.79%, 5.52%, 4.91%, 4.06%, 3.41%, and 3.12% of the total variance, respectively; and the overall KMO measure was 0.801, Bartlett's Test of Sphericity was statistically significant ($p < .0005$). The nine-factor solution explained 60.0% of the total variance. Therefore, extracting nine components made sense from the perspective of the interpretability criterion. This suggest that it is appropriate to include each of the 33 items in further analyses (CFA). Pattern Matrix showed that each of the 33 GCS items loaded onto their proposed factor, except for recreational2 and Price conscious, all other loadings were > .5. these results suggest the appropriateness of a 9-factor GCS solution. In study one, this research has successfully achieved to identify key dimensions and structure of the new proposed scale (i.e. Green consumption Scale) through exploratory factor analysis (EFA).

In study 2, Steps 5 to 8 of Churchill (1979) CFA was conducted (collect new data, assess reliability and validity and develop norms) respectively were applied. This part of the thesis addressed the analytical procedures undertaken to test GCS conceptual relationships, nature and directionality of associations between GCS and specific other constructs within a GCS conceptual model. This (study 2) provided a validation study of the GCS scale, in addition to fit assessments for the proposed GCS conceptual model and validity assessments, including construct validity.

In step 5 (Survey Design and Structure), data were collected through Qualtrics from Tanzanian and New Zealand consumers (n=225). Similar to study 1, an online survey was used, which was adapted from the questionnaire adopted in study 1 (see Appendix 3). Further, the questionnaire included a number of questions to address the predictive validity of the scale. Specifically, participants were asked the extent to which they prefer to buy: - local, global, private or national brands; chocolate and smart phones produced with low environmental impact; vitamin supplements, and solar panels preferences. The questionnaire also included questions regarding independent and dependent variables for predictive validity. In this study, a total of n=225 responses were attained.

After undertaking the preliminary analyses, including the descriptive statistics, CFAs were conducted for each of the constructs' measurement models to determine the items appropriate for inclusion in the scale followed by model fit assessments, construct validity, factor structure, and variance analyses.

The same procedure as EFA was followed, after data entry to check errors in the database and the underlying assumptions of confirmatory factor analysis before running confirmatory factor analysis (CFA). The results of the fit statistics are summarised as follows (Table 4.15):

- Degrees of freedom – 1.548 which is ≤ 3 indicated an acceptable model fit.
- RMSEA = 0.049, which was less than 0.05 and hence indicated a good model fit.
- Standardised RMR = 0.063, less than 0.077, indicated an acceptable model fit.
- CFI = 0.917 indicated an acceptable model fit.

As a result, the CFA analysis confirmed the factor structure whereby the first factor, green consumption consumer, consists of 9 items: the second factor, brand conscious/price equals quality consumer, had 3 items; the third factor, recreational/hedonistic consumer, comprises of 2 items; the fourth factor, perfectionistic/high-quality-conscious consumer, with 3 items; the fifth factor, impulsive/careless

consumer, made up of 3 items; the sixth factor, confused by over-choice consumer, has 3 items; the seventh factor, habitual/brand-loyal consumer, consists of 3 items; the eighth factor, novelty-fashion-conscious consumer, consists of 3 items; the Ninth Factor, Price Conscious and values for money, comprised of 2 items. Step six focused on construct validity assessments for the model. The factor structure from Study 1 was used with a separate dataset. The reduced-form CSI scale was used along with the 9-item green scale finalised in the EFA, and analysed in AMOS (v24) using Confirmatory Factor Analysis. The model converged but with relatively weak model fit indices. Investigating the Standardized Regression Weight estimates suggested removing two measures to improve model fit: 'Recreation 2' (Q5_2) and 'Price Conscious 3' (Q6_3), and this did substantially improve the overall model fit to acceptable levels.

In Step 7: Predictive Validity; the final CFA model was used to construct the latent variables (using the data imputation routine) which is an important part of Step 7 of Churchill (1979), with these factors analysed with linear regression on a range of dependent variables also captured in the survey (See Chapter 3 – Methodology).

The objective of these regressions analyses was to demonstrate predictive validity of the Green factor in the context of the other factors of CSI scale. The results of the corresponding regression analyses established that the green factor predicts consumer preferences and activities related to green consumption better than the other factors, while the other factors predicted the respective consumer preferences better than the green factors. The green factor predicted (had positive and significant effect on) consumer preferences associated with green consumption such as Solar panels, preference for mobile phone with longer battery lives. The green factor also predicted the likelihood to buy chocolate with low environmental impact better than the other factors. At the same time, as expected it does not predict how frequently consumer buy chocolate in general. The results of the regression analyses support the predictive validity of the Green Consumption Scale within the context of Consumer Decision-Making Styles (CDMS). This is because the Green Consumption Scale is strongly and positively related to products with a green dimension, while has an insignificant effect on consumer preferences for products unrelated to green consumption.

In step 8 (Churchill, 1979) norms were established and it was found that on average consumers from both Tanzania and New Zealand are green conscious consumers. A one-sample t-test was run to determine whether Green conscious score in recruited subjects was different to normal, and the results showed that the mean Green score (3.46) was significantly higher than the normal score of 3. This difference is also practically significant. Interestingly Tanzanian consumers are more green conscious than New Zealanders.

From the above exhibited findings, it can be concluded that the GCS concept as a measurement tool has relevance in consumer decision-making research; exhibiting significant associations with other marketing constructs (e.g., consumer behaviour). Hence, it can be used to predict consumer behaviour outcomes; specifically, green consumption behaviour. Finally, based on the present preliminary findings, the newly developed GCS scale seems to be a reliable and valid measurement instrument, which may serve to enhance scholarly and/or managerial insights regarding GCS-related consumer behaviour dynamics.

Finally, research questions proposed for this study have been answered. The first question was about what are the types of green Consumer Decision-Making Styles (CDMS) exercised in New Zealand and Tanzania. The study addressed this question through the identified, generated, defined, and refined qualitative list of the "original" list of items generated for the green scale. This thesis found identified the GCS with one green factor with 9 items.

Through study 1 (via explorative factor analysis) and 2 (via confirmatory factor analysis) this Thesis could also establish that the newly developed green consumption CSI scale maintain its psychometric properties once the new green dimension is added, addressing research question 2. Particularly, in study 2, a nine-factor solution produced met the interpretability criterion. As such, nine factors were retained as it explains explained 60.0% of the total variance which is above 50% and exhibited a 'simple structure' (Thurstone, 1947). The interpretation of the data was consistent with the CSI-Green Consumption attributes; with strong loadings of Green Consumption items on Component 1, Perfectionist items on Component 2, Novelty-Fashion items on Component 3, Confused by Overchoice items on Component 4, Brand Loyalty items on Component 5, Recreational items on Component 6, Brand Conscious items on Component 7, Impulsive buying items on Component 8, and Price conscious items on Component 9 (See Table 4.11).

Research Question three was also answered regarding the extent the newly developed green CSI scale relate with consumers' consumption style and is generalizable across both developed and emerging countries? We have addressed it in Study 1 (separate analyses for NZ and Tanzania), but also in Confirmatory F actor Analysis (Study2, on the cross sample).

5.3 Contributions

This study contributes to consumer decision-making research (Tarnanidis, Frimpong, Nwankwo, & Omar, 2015) by developing and comprehensively validating green consumption CSI scale as perceived by consumers. Likewise, this study is a significant contribution in a way that, the newly developed GCS is a new research product that is developed and validated within the New Zealand and Tanzanian green consumption contexts. The newly developed consumption instrument could help researchers, consumers, and marketers. This research developed a valid and reliable instrument for measuring green consumption style objectively. Moreover, it provides insight for consumers and other interested stakeholders who work on the area by identifying the most dominant green-consumption style.

Further, when coming to studies on consumer decision-making practices (i.e. CSI) in Tanzania, no studies have been documented. Since there is no documented CDMS studies for Tanzania, one cannot draw a conclusion regarding the predominant consumption style exercised in Tanzania. Finally, developing and validating a suitable green-consumption CSI scale in the context of developing country like Tanzania contributes to the research on environmental issues in emerging countries (Biswas & Roy, 2015; Saxena & Khandelwal, 2010).

5.3.1 Academic Contributions

By proposing a GCS conceptualisation, this research has provided exploratory insights into the nature, dimensionality and measurement pertaining to this emerging GCS concept addressing the need for a green consumption scale and an understanding of green consumption. This thesis has enhanced an understanding regarding the emerging GCS concept and the advancement of consumer behaviour theory (Oztek & Cengel, 2013; Sinkovics et al., 2010; Wesley et al., 2006). Moreover, this research provides a catalyst for future inquiry, which is required to validate the proposed GCS conceptualisation and the associated measurement. Specifically, from the above exhibited findings, the academic contribution of this study is regarding a developed and tested Green Consumption measurement tool which is relevant in consumer decision-making research. This measurement tool has also exhibited significant associations with other marketing constructs (e.g., consumer behaviour). Therefore, it can be used to predict consumer behaviour outcomes; specifically, green consumption behaviour. Based on the findings, the newly developed GCS scale contributes to the body of knowledge as a reliable and valid measurement instrument, which may serve to enhance scholarly and/or managerial insights regarding GCS-related consumer behaviour dynamics in emerging economies (Biswas & Roy, 2015; Saxena & Khandelwal, 2010).

Third, this study contributes to the emerging methodological attempts to capture green consumer trends (Grunert & Juhl, 1995; Haws et al. (2014) by developing a methodology to directly measure green consumption orientation in the context of more general consumer decision-making styles.

Another academic contribution is that through study 1 (via explorative factor analysis) and 2 (via confirmatory factor analysis) this thesis was able to establish that the newly developed green consumption CSI scale maintains its psychometric properties once the new green dimension is added, addressing research question 2 by validating the scale in both developed and emerging economies, this study addresses the call in the literature to investigate consumer behaviour in emerging economies in general (Peattie 2010; Ritter et al., 2014; Tseng and Tsai, 2011), and with regard to green consumption behaviour in particular (Sinkovics et al., 2010; Walsh, Thurau and Mitchell, 2001; Wesley et al., 2006).

5.3.2 Managerial Contributions

In addition to scholarly contributions, this thesis also generates several managerial contributions. First, a GCS conceptualisation provides managers with an enhanced understanding of this emerging concept, which may be adopted in the design of specific GCS or green consumer product -focused strategies and tactics. Specifically, the proposed GCS dimensions may be used to guide managerial development of organisational GCS-based tactics and strategies.

Further managerial benefits may accrue from the adoption of the proposed GCS scale in specific organisational or product settings. Hence practitioners' capability to measure/quantify consumer GCS levels and assess these relative to other key indicators, is expected to generate enhanced understanding of GCS and/or its outcomes, including overall green consumption perception.

By employing the newly developed GCS, insights may emerge regarding green consumption experience and retention. Further, assessments of consumers' GCS may generate insights into the specific GCS dimensions thus facilitating the development of managerial insights into strong, and weak aspects of their particular green products or brand portfolios; and/or permitting the emergence of insights into green consumption improvement which may contribute to enhanced performance outcomes.

5.4 Limitations and Future research

5.4.1 Limitations

In line with previous studies regarding willingness to buy global and local brands (Melnyk, Klein, & Völckner, 2012; Hess & Melnyk, 2016), the study measured purchase intentions for four products (chocolate, solar panels, smartphones, and Vitamins) to assess the predictive validity of the scale, as consumer evaluations are important indicators of their actual behaviour, and in general attitudes and intentions are positively related to purchasing behaviours (e.g., Ajzen & Fishbein 1980). However, purchase intentions do not always translate into actual purchase behaviour (Chandon, Morwitz, and Reinartz 2005). Questions were asked about self-reported actual behaviour for two of the products (installation of solar panels and frequency of buying chocolate), but for the most part behavioural measures were limited to purchase intentions. Future research should investigate actual purchasing behaviour for a broader set of products, and in response to varying levels of marketing inputs (such as price, and green claims) (Stall-Meadows & Davey, 2013).

The cross-sectional nature of this research (De Vaus, 2005), like the majority of CDMS-based marketing research to-date, is limited to a snapshot of consumers' GCS at a specific point in time. Hence research adopting longitudinal designs (e.g., panel studies: De Vaus, 2002a) would serve to contribute insights into specific GCS phases and/or 'life cycles' by describing key change patterns (Hollebeek, 2011). Specifically, time series analysis and/or latent growth curve analysis may be used for the longitudinal modelling of the data (Bijleveld et al., 1998). For example, longitudinal data models may facilitate the investigation of GCS dynamics, which may differ across cultures and countries (see Chapter 4). Further, the green consumption occasion (cf. Chapter 2) may fluctuate: (i) during consumption; and (ii) over time. Hence future research may wish to examine the consumers' GCS levels within consumption occasions.

In studies 1-2 attaining large sample sizes across a range of demographic variables (age, gender, region, and ethnicity) was challenging, based on sampling feasibility constraints; thus, further limiting the sample's representativeness. Hence future investigations replicating or extending this research may wish to adopt (a) fully representative sample(s) in their research design. In a similar vein, for the quantitative studies (Study 4 and Study 5), it would have been more desirable to have representative samples from Tanzania and New Zealand (rather than the convenience sample). However, it is important to note that representative samples would be more important for the prediction of actual purchases rather than scale validation, as non-representative samples are unlikely to affect scale dimensionality. This is the first research to develop and simultaneously validate a new "green" scale in both developing and developed markets. Given some natural limitations of the data, the results should be interpreted with some caution. Future research should replicate the findings across other markets.

5.4.2 Areas for future research

Although this research covers both an emerging (Tanzania) and a developed (Marshall et al.2008) countries, future research could assess the applicability and generalizability of the scale to other countries, products, and services setting is required.

While this thesis has undertaken an empirical investigation into the nature and dynamics of GCS, empirical research addressing the nature of GCS relationships with other constructs such as green consumption attitude, experience, and involvement would enhance scholarly understanding of this emerging concept and its conceptual relationships (Hollebeek, 2011). Further, future research may wish to examine differences across differently perceived green products which may generate distinct GCS dynamics and dimensions across contexts. Moreover, future research may wish to address the nature and dynamics relating to specific GCS triggers and inhibitors, which may serve to inform subsequent managerial decision-making and action. Additionally, future studies may wish to investigate the potential contributions of GCS to the development of different types of green products.

Whilst social exchange theory provides suitable conceptual foundations for GCS (see Chapter 2 &3), the nascent developmental state of GCS research merits further scrutiny of alternate or supplemental theoretical lenses through which to view GCS and its associated dynamics. Examples of such alternate or complementary perspectives include the Universalism (Schwartz, 1994; Schwartz and Sagie, 2000) and Environmentalism values (Grunert & Juhl, 1995; (Steenkamp, 2010) constructs explored in Chapter 2, which connect green consumption practices with broader value theory and consumer attitude frameworks. The potential linkages between the GCS and the Haws et al. (2014) should also be explored, as the characterisation of consumers along green consumption value dimensions may assist in the explanation of why green-motivated consumers make decisions the way they do.

While specific CDMS-based research in Consumer Behaviour has suggested the inclusion of values aspect in CDMS conceptualisations (see Chapter 2), the values aspect was not included in the present GCS model in this research, including and going beyond the specific aspect of green values. As stated, the rationale underlying this decision was based on a number of factors (Section 2. 6). Specifically, the role of values is viewed as an external, moderating or mediating factor, which may affect GCS and its outcomes; rather than representing a GCS dimension per se.

Further, based on this observation, future research may wish to investigate specific GCS driving-, inhibiting, and moderating factors. In addition, the omission of a values dimension in the proposed GCS conceptualisation was based on the potentially privately consumed or non-conspicuous, nature of green consumption. Hence, while a values factor may serve to affect consumers' GCS levels in some instances, such dynamics are not expected to occur across all products or in all contexts. Hence future research may wish to extend this research by exploring or validating the adoption of GCS in the context of social values characteristics and dynamics.

5.5 Chapter Summary

In summary, this chapter has provided an overview of key contributions, as well as research limitations and future research directions arising from this thesis. The chapter commenced with an overview of key contributions of this research, followed by an overview of the key research limitations and directions for future research.

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APPENDICES

Appendix 1. Summary table for this study's CSI literature

No.	Country	Reference	Perfectionist	Brand Conscious	Novelty-Fashion Conscious	Recreational, hedonistic	Price-Value Conscious	Impulsiveness	Confused by Over-choice	Habitual, Brand Loyal	Quality Conscious	Variety-Seeking	Enjoyment-Variety Seeking	Recreational-Hedonistic	Price Conscious	Time-Energy Conserving	Time conscious	Store Promiscuous	Store Loyal	Information Utilization	Satisfying	Fashion-sale seeking	Time restricted	Economy seeking	Imperfectionism	Bargain Seeking	Low price seeking	Careless Consumer
1	US	(Sproles & Kendall, 1986)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2	US	(Sproles & Sproles, 1990)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3	KR US	(Hafstrom et al., 1992)	✓	✓	x	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●	●
4	NZ	(Durvasula et al., 1993)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5	GR IN NZ US	(Lysonski et al., 1996)	✓	✓	✓	✓	x	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
6	CN	(Fan & Xio, 1998)	x	✓	x	x	x	x	x	x	✓	●	●	●	✓	●	✓	●	●	✓	●	●	●	●	●	●	●	●
7	UK	(Mitchell & Bates, 1998)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	●	✓	●	●	●	●	●	●	●	●	●
8	CN	(Hiu et al., 2001)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
9	DE	(Walsh, Thurau, et al., 2001)	✓	✓	✓	✓	x	✓	✓	x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
10	UK	(Bakewell & Mitchell, 2004)	x	✓	✓	x	x	x	✓	x	●	●	●	●	●	✓	●	x	x	●	●	x	●	●	●	●	●	●
11	DE	(Mitchell & Walsh, 2004)	✓	✓	✓	✓	x	✓	✓	x	✓	✓	✓	✓	●	✓	●	●	●	●	✓	✓	✓	✓	●	●	●	●
12	KR US	(Wickliffe, 2004)	x	x	x	x	x	x	x	x	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
13	CN	(Wang et al., 2004)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
14	CN	(Tai, 2005)	x	✓	✓	x	✓	x	x	✓	✓	●	●	●	●	✓	✓	●	●	✓	●	●	●	●	●	●	●	●
15	UK	(Bakewell & Mitchell, 2006)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	✓	●	x	x	●	●	●	✓	●	✓	✓	●	●
16	US	(Wesley et al., 2006)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
17	T W	(Yang & Wu, 2007)	✓	✓	✓	x	x	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
18	IR	(Hanzaee & Aghasibeig, 2008)	✓	✓	✓	✓	x	✓	✓	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	✓	x
19	CN	(Kwan et al., 2008)	✓	✓	x	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
20	M Y	(Mokhlis & Salleh, 2009)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	x	✓	●	●	●	●	x	●	●	●	●	●	●	●
21	NL	(Kasper et al., 2010)	✓	✓	x	✓	✓	x	x	✓	●	✓	●	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●
22	AT	(Sinkovics et al., 2010)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
23	CN	(Zhou et al., 2010)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
24	PL US	(Solka et al., 2011)	x	✓	x	x	*	x	x	x	✓	●	✓	●	●	●	✓	●	●	●	●	●	●	●	●	●	●	●
25	T W US	(Chen et al., 2012)	✓	✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
26	AU	(Nayeem, 2012)	✓	✓	x	✓	x	x	✓	✓	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

No.	Country	Reference	Study Objective	Sample	Instrument	Analysis	Results-Conclusion
1	US	(Sproles & Kendall, 1986)	method for measuring characteristics of CDMS	501 US high school students	8-factor method of 48 items, 5-point Likert scale	The principal component method with varimax rotation of factors, communality estimates of 1.0. A constrained 8-factor solution was extracted to test the 8 characteristics model	CSI is useful for consumer-interest professionals. Further application and validation of the CSI across the population are encouraged. 8 factors of 40 items
2	US	(Sproles & Sproles, 1990)	To explore the relationships between individuals' learning styles and their CDMS	501 US high school students	Sproles and Kendall (1986)	Sproles and Kendall (1986)	Found statistically significant relationships between learning and decision-making characteristics
3	KR	(Hafstrom et al., 1992)	To identify CDMS of young Koreans and find if they are similar to those of US consumer	310 college students in Korea	Sproles and Kendall (1986). 44 items, 5-point Likert scale	Factor analysis, principal component method varimax rotation, 8-factor solution (for comparison)	The observed generality of several CDMS of young US and Korean consumers. CSI has elements of construct validity and usage potential across nations
4	NZ	(Durvasula et al., 1993)	To test the generalisability of CSI in Tanzania	210 undergrad students at a large university in Tanzania	Sproles and Kendall (1986).	Sproles and Kendall (1986).	Similarities outweigh the differences hence provided general support for CSI
5	GR, IN, NZ US	(Lysonski et al., 1996)	To investigate the Consumers decision-making profiles of four diverse countries	486 Undergrad. students from GR, IN, NZ, US	Sproles and Kendall (1986) 40 items, 5-point scale same as Sproles & Kendall	Same method as Sproles & Kendall's (1986)	Confirmed 7 factors out of 8 with 34 items. CSI requires additional psychometric work before it can be applied to other countries, mainly the less developed.
6	CN	(Fan & Xio, 1998)	To examine dimensions and profiles of Chinese CDMS compared to American and Korean	271 undergrad. students in China	Sproles and Kendall (1986). 7-factor model of 40 items 5-point Likert scale	Same method as Sproles & Kendall's (1986)	The consumer decision-making styles are similar in the three countries, but the maturity of the consumer market may impact the differences in CDMS. 5 factors of 31 items
7	UK	(Mitchell & Bates, 1998)	To examine the generalisabity of Sproles and Kendall's (1986) CSI in an extension work in the UK	401 undergrad students in the UK	Sproles and Kendall(1986) 10-factor model 38 items 5-point Likert scale	Same method as Sproles & Kendall's (1986)	Most of the original US traits were found in the UK, addition of new store-loyalty and time-energy saving traits. The CSI is sensitive enough and able to assess cultural differences and produce sensible results.
8	CN	(Hiu et al., 2001)	To investigate Chinese CDMS	381 adult consumers in China	Sproles and Kendall (1986). Double analysis method,	Exploratory and confirmatory factor analysis. Cluster analysis for determining market segment in the future	Five CDMS are valid and reliable in Chinese culture (perfectionist, novelty-fashion conscious, recreational, price conscious, and confused by overchoice. 7 factors and 5 market segments derived

					8-factor model of 40 items 5- point Likert scale		
9	DE	(Walsh, Thurau, et al., 2001)	To test the generalizability of CDMS in different countries and with non-student German shoppers	455 German male and female shoppers (eighteen and older)	Sproles and Kendall (1986)	Sproles and Kendall (1986)	supported six factors only
10	UK	(Bakewell & Mitchell, 2004)	Examine the decision making of adult female generation Y consumers	244 Female undergraduate students in the UK	Sproles and Kendall (1986)	Sproles and Kendall (1986)	Shoppers change as a function of their generation membership due to macro-environmental influences and 5 decision-making groups emerged
11	DE	(Mitchell & Walsh, 2004)	To examine the validity of an instrument designed to measure CDMS of German male and female consumers	358 German shoppers	Sproles and Kendall (1986) 4 common factors model of 22 items, 5 Male factors of 19 items, 5- Female factors of 17 items	Exploratory principal component method with varimax rotation of factors	Five new male factors (satisfying, enjoyment-variety seeking, fashion-sale seeking, time restricted and economy seeking). CSI has constructed validity for females, but not males.
12	CN	(Wickliffe, 2004)	To investigate the relationship between Chinese CSI and their choice between domestic and imported clothing brands	431 adult Chinese in Guangzhou	Sproles and Kendall (1986), 7-factor, 18-items, 5- point Likert scale	Began with the multivariate analysis of variance (MANOVA), followed by canonical discriminant analysis	General support for the usefulness of purified CSI in understanding Chinese CDMS in relationship to consumers' preference for domestic or imported clothing brands.
13	KR, US	(Wang et al., 2004)	To examine the psychometric properties of a popular the instrument used to measure CDMS and its findings were compared to earlier studies	126 American factory workers and students 156 Korean factory workers and students	Sproles and Kendall (1986)	Sproles and Kendall (1986)	CSI not a reliable or valid measure of CDMS for both Korea and the US. The confused impulsive consumer was the new construct and in contrast with previous studies.
14	CN	(Tai, 2005)	To create a typology of the shopping style dimensions of working female consumers aged 18- 44 in Shanghai and Hong Kong	148 Hong Kong 126 Shanghai	Sproles and Kendall (1986)	Sproles and Kendall (1986)	Identified 10 CDMS relevant to Chinese working females and four new non-CSI dimensions (personal style consciousness, environment and health consciousness, reliance on mass media, and convenience and time consciousness)
15	UK	(Bakewell & Mitchell, 2006)	To investigate male and female CDMS	a non-probability sample of 245 male and 245 female undergraduate students	Sproles and Kendall (1986), 38-items, 8-common factors, 4-male factors, 3-female factors 5- point Likert scale	Principal component analysis with an orthogonal rotation	All 8 US original CSI were confirmed and largely-female, decision-making traits.

				aged 18-22 years (usable items 480)			
16	US	(Wesley et al., 2006)	To assess the relationship between CDMS and shopping malls behaviour	527 adult consumers aged 18 to 85 plus	Sproles and Kendall (1986), 8-factor, 39-items, 5- point Likert scale	adopted Exploratory Data Analysis (EDA)	Empirical research supported CDMS existence among adult shoppers in different mall contexts. Gender is a prime antecedent associated CDMS. CDMS influence on mall shopping indirect Perfectionist consumers are ranked high in planned mall expenditures
17	TW	(Yang & Wu, 2007)	to find Taiwan's CDMS using CSI	472 sample; 240 females, 232 males. about 20–30 years old, with an education above college	40-item CSI with a five-point scale (1-strongly disagree to 5-strongly agree	Using EFA inconsistency with Sproles and Kendall, principal components analysis with varimax rotation and eigenvalue-as criterion for deciding the number of factors	The existence of gender differences among online shoppers regarding brand and novel fashion consciousness. Female Internet CDMS are dominated by novel-fashion while male by brand. marketers must create marketing mix suitable for online consumer's values. researchers can use the six online shoppers' CDMS as segmentation variables for capturing online shoppers'' profiles
18	IR	(Hanzaee & Aghasibeig, 2008)	To investigate the CSI generalizability on Generation Y male and female Iranians as an emerging market.	354 female and 338 male undergraduate students	Sproles and Kendall's 40-item CSI	Used principal component analysis with varimax (orthogonal) rotation. Kaiser–Mayer–Oklin (KMO) used to measure sampling adequacy Factor analysis.	Male generation Y Iranian consumers exhibited Non-perfectionist, Brand Indifference CDMS. Items of this trait need further research because of its poor reliability. CSI items need to be updated especially with regard to technology innovations. international marketers should use CSI with the cultural effects considerations.
19	CN	(Kwan et al., 2008)	to explore the relationship between consumers' lifestyle and CDMS towards casual wear for Chinese consumers aged 18 to 30	264 male and female university students in Beijing, Shanghai, Guangzhou, Hong Kong and Taipei	Sproles and Kendall (1986). 8-factor model of 40 items 5- point Likert scale	confirmatory and exploratory factor analyses, were employed.	a seven-factor CDMS model was identified for the Chinese samples. Chinese consumers in different locations display different CDMS to better understand CDMS, further research is suggested in order to explore more the fundamental influencing CDMS
20	MY	(Mokhlis & Salleh, 2009)	To investigate the CDMS of Malay young-adults	419 undergraduate students	Sproles and Kendall (1986), 8-factor model of 40 items as Sproles and Kendall. 5- point Likert scale	Factor analysis with principal component method was conducted on decision-making style scale items	general support to CSI
21	NL	(Kasper et al., 2010)	to provide an understanding on how consumers handle confusion caused by information overload and choice	203 Dutch mobile phone users	CSI scale, 8-factor model of 41 items as Sproles & Kendall. 5- point Likert scale	Cluster analysis using MANCOVA	Dutch mobile phone consumers can be grouped into three CDMS cluster: "price conscious," "brand-loyal and quality-driven," and "functionalist."

22	AT	(Sinkovics et al., 2010)	To examine and compare CDMS in Austria and previous CSI studies in other countries (Replica for generalisation) To test the CSI's explanatory power in a sample drawn from general public	225 Austrian consumers, from the general public	Sproles and Kendall (1986), 6-factor, 54-items, 5- point Likert scale	Descriptive analyses, Factor analysis (principal components, varimax rotation).	Results are highly congruent with findings from earlier studies using student samples.
23	CN	(Zhou et al., 2010)	to develop a better understanding of the variations in CDMS between coastal and inland China	coastal sample of 195 students (114 females and 81 males). inland sample, 245 students (152 females and 90 males)	7-point Likert scale (1=strongly disagree to 7 = strongly agree). 39 items from Sproles and Kendall	"An item-total correlation analysis of the 39 items revealed that 4 Correlation and a multi-group confirmatory factor analysis to assess the measurement invariance between the two groups	consumers in the two regions are similar in utilitarian shopping styles and differ in hedonic shopping styles. China is heterogeneous rather than homogeneous market
24	PL	(Solka et al., 2011)	To examine gender and culture as predictors of CDMS.	188 Polish students and 208 Americans	Sproles and Kendall (1986), 5-factor model of 41 items, 5- point Likert scale	principal component factor analysis"	Found 4 out of 5 shopping characteristics to be different between Poland and the US (enjoyment, shopping aversion, price consciousness and quality consciousness) and 3 out 5 differ between genders (enjoyment, shopping aversion and brand consciousness).
25	TW, US	(Chen et al., 2012)	To examine CDMS scores of two cultures (Taiwan and US) to understand better their preferences	Undergrad students: 159 Taiwanese, 151 Americans	Sproles and Kendall (1986), 8-factor model of 40 items, 5- point Likert scale	correlational analyses, Hotelling's T-Squares, factorial MANOVAs (univariate tests and post hoc tests were deem appropriate)	Consumers from different cultures differ in decision-making styles. Understanding the different CDMS can help in identifying suitable sales, marketing, and distribution competitive advantages.
26	AU	(Nayeem, 2012)	To investigate the relationship between individualism-collectivism and CDMS in the automobile industry.	202 adults	Sproles and Kendall (1986), 6-factor model of 33 items. 7 point Likert scale	Exploratory and confirmatory factor analysis conducted on Sproles & Kendall's (1986) CSI. Followed by MANCOVA	Individualists and collectivists differ significantly on brand consciousness and confused by overchoice; with collectivists scoring higher. No much difference on the rest of the factors

Key: (✓) = CSI factor is supported, (x) = CSI factor not supported, (●) = Factor not considered.

Appendix 2:

INTERVIEW PROTOCOL

Interview/Focus Group Question Protocol

1. Do you have any standard criteria for products you buy?
    a. If yes, what are your standards and expectations for products you buy?
    b. If not, why?

2. Do you have any brand preferences?
    a. If yes, can you share with us your brand preferences?
    b. Any reasons behind your preferences?
    c. If not, any reasons

3. What is your opinion regarding fashion and style trends?

4. How enjoyable is shopping to you?
    a. Reason for your answer?

5. To what extent do price influences your choice of products you are buying?
    a. To what How?

6. Have you made purchases that later you wish you had not?

7. Do you have any difficulties in choosing a brand/product amongst multitude of brands?
    a. Any reasons?

8. Do you have a favourite store or brand?
    a. If yes,
        1. for how long?
        2. Why?
    b. If not, why?

9. What comes in your mind when you come across the term “green product”
    a. Bought any “green products” recently?
    b. Any preference?
    c. Why?

THANK YOU VERY MUCH FOR YOUR TIME.

YOUR HELP IN THIS RESEARCH IS MUCH APPRECIATED!

Appendix 3: Tanzania & Tanzania Survey - II

Q1 MASSEY UNIVERSITY
COLLEGE OF BUSINESS- KAUPAPA WHAI PAKIHI

Consumer Styles Inventory (Zsóka et al.) in Tanzania & Tanzania

Greetings,

I am Fred Angels Musika, a researcher from Massey University, investigating the buying decision-making styles of Tanzanian consumers aged 18 and above. I would like to invite you to participate in this study, and also request your favour to distribute the URL questionnaire link (which you will find in the email sent to you) to your friends and colleagues.

Your participation in this survey is highly valued, but voluntary. Completion and submission of the questionnaire imply consent. You have the right to decline to answer any particular question. You may stop participating in this research at any time. Please be assured that your response is private, confidential, anonymous, and protected to the fullest possible extent.

Your opinions count and are very important to this study. The survey will take around 20 minutes to complete.

Thank you for your participation in the Survey.

Note:
This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research. If you have any questions about this survey, please contact Dr Andrew Murphy on +64 9 414 0828, or a.j.murphy@massey.ac.nz, or The director (Research Ethics), Tel: +6463505249; Email: humanethics@massey.ac.nz

Q2 To what extent do you agree with the statements below?

	Strongly Disagree	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
Getting very good quality is very important to me (1)					
When it comes to purchasing products, I try to get the very best or perfect choice (2)					
In general, I usually try to buy the best overall quality (3)					
I make special effort to choose the very best quality products (4)					
I really don't give my purchases much thought or care (5)					
My standards and expectations for products I buy are very high (6)					
I shop quickly, buying the first product or brand I find that seems good enough (7)					
A product doesn't have to be perfect, or the best, to satisfy me (8)					

Q3 Rate each item to indicate your level of agreement:

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
The well-known national brands are best for me (1)					
The more expensive brands are usually my choices (2)					
The higher the price of a product, the better its quality (3)					
Nice department and specialty stores offer me the best products (4)					
I prefer buying the best-selling brands (5)					
The most advertised brands are usually very good choices (6)					

Q4 Please tell us your level of agreement with the following statements:

	Strongly Disagre	Disagree (2)	Neither Agree nor Disagre	Agree (4)	Strongly Agree (5)
I usually have one or more outfits of the very newest style (1)					
I keep my wardrobe up-to-date with the changing fashions (2)					
Fashionable, attractive styling is very important to me (3)					
To get variety, I shop different stores and choose different brands (4)					
It's fun to buy something new and exciting (5)					

Q5 Please indicate whether you agree or disagree with the following statements:

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
Shopping is not a pleasant activity to me (1)					
Going shopping is one of the enjoyable activities of my life (2)					
Shopping the stores wastes my time (3)					
I enjoy shopping just for the fun of it (4)					
I make my shopping trips fast (5)					

Q6 Thinking of price, please respond to the following statements:

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
I buy as much as possible at sale prices (1)					
The lower price products are usually my choice (2)					
I look carefully to find the best value for the money (3)					

Q7 To what extent the following statements are applicable to you?

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
I should plan my shopping more carefully than I do (1)					
I am impulsive when purchasing (2)					
Often I make careless purchases I later wish I had not (3)					
I take the time to shop carefully for best buys (4)					
I carefully watch how much I spend (5)					

Q8 Please indicate how much you agree or disagree with each of the following statements:

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
There are so many brands to choose from that often I feel confused (1)					
Sometimes it's hard to choose which stores to shop (2)					
The more I learn about products, the harder it seems to choose the best (3)					
All the information I get on different products confuses me (4)					

Q9 What is your level of agreement to the statements below?

	Strongly Disagree	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
I have favourite brands I buy over and over (1)					
Once I find a product or brand I like, I stick with it (2)					
I go to the same stores each time I shop (3)					
I change brands I buy regularly (4)					

Q10 To what extent do you agree or disagree with the following statements:" I prefer to buy products that ...:"

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
promote environmental conservation awareness (1)					
are produced in an ethically responsible manner (2)					
are biodegradable (3)					
are recyclable (4)					
are good for the planet (5)					
are free of toxins (6)					
are certified to be environmentally-friendly (7)					
adhere to fair trade principles (8)					
are re-usable (9)					
are reducible (10)					

Q11 To what extent do you agree with the following:

	Strongly Disagree	Disagree (7)	Neither Agree nor Disagree	Agree (9)	Strongly Agree (10)
I prefer to buy local brands when available (1)					
I prefer to buy global brands when available (2)					
I prefer private (retailer) labels whenever available (3)					
I prefer national brands whenever available (4)					

Q12 What product brand or service primarily came to your mind when completing this questionnaire?

Q13 From which country do most of the products you have been buying come from? Please specify.

Q14 How often do you buy chocolate?

Never (1)
Rarely (2)
Sometimes (3)
Often (4)
All of the Time (5)

If Never Is Selected, Then Skip To What kind of mobile phone are you usi...

Q15 To what extent do you agree with the following statements about chocolate? I prefer to buy chocolate that:

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
Tastes good (4)					
Is produced with low environmental impact (5)					
Is high quality (6)					
Is not expensive (7)					
Is a well-known brand (8)					
Is fashionable (9)					

Q16 What kind of mobile phone are you using currently?

Normal Mobile phone (1)
Smart Phone (2)
I do not have a mobile phone (5)

If I do not have a mobile phone Is Selected, Then Skip To How often do you buy vitamin supplements?

Q17 To what extent do you agree with the following statements about mobile phone features? I prefer to buy a phone that:

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
Has a long battery life (1)					
Has email connectivity (2)					
Has the ability to access social media (Facebook etc.) (3)					
Has a camera (4)					
Is produced with low environmental impact (5)					
Is the latest model (6)					
Is not expensive (7)					
Is a well-known brand (8)					
Is fashionable (9)					
Can play games or videos (10)					
Is high quality (11)					

Q18 How often do you buy vitamin supplements?

Never (1)
Rarely (2)
Sometimes (3)
Often (4)
All of the Time (5)

Q19 Do you have any Solar panels installed in your home?

Yes (1)
No (2)

Q20 To what extent do you agree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree	Agree (4)	Strongly Agree (5)
I would like to have solar panels on my house (1)					
I would recommend solar panel installation to friends and family (2)					
I prefer solar power to electricity (3)					
I prefer solar power to gas (4)					
Solar panels are affordable (5)					
I know enough about solar panel as a consumer (6)					
Solar panels are reliable (7)					

solar panels produce clean energy (8) I prefer energy from solar panels to that from coal (9) I prefer energy from solar panels to that from oil (10)					

Q21 Your gender
Male (1)
Female (2)

Q22 Your age in years
18 - 24 (1)
25 - 34 (2)
35 - 44 (3)
45 - 54 (4)
55 - 64 (5)
65 and above (6)

Q23 Employment
Student (1)
Employed (2)
Unemployed (3)
Own business/Self-employed (4)

Q24 Marital status
Single (1)
Cohabiting (2)
Currently married (3)
Separated (4)
Divorced (5)
Widow (6)
Widower (7)
Engaged (9)
In a relationship (10)

Q25 Your gross monthly income (equivalent to US $)
No income (1)
1- 500 (2)
501 - 1000 (3)
1001 - 2000 (4)
2001 - 3000 (5)
3001 and above (6)

Q26 Your education (highest level completed)
Primary education (1)
Secondary education (2)
Certificate (3)
Diploma (4)
University degree (5)

Q27 Area you live in
Urban (1)
Suburban (2)
Rural (3)

Q28 Your ethnic background
African (1)
Asian (2)
European (3)
Maori (4)
Pacifica (5)
Middle Eastern (6)
Other (7)

Q29 Your religion affiliation
Christian (1)
Jewish (2)
Buddhist (3)
Muslim (4)
Hindu (5)
No religion (6)

Q30 You are currently in
Tanzania (1)
Tanzania (2)

Appendix 3: Regression Summary

	Model Summary: Dependent Variable	R	R Square	***Adjusted R Square***	Std. Error of the Estimate	Change Statistics				
						R Square Change	F Change	df1	df2	Sig. F Change
1	buy chocolate	.530a	.281	***.011***	.892	.281	1.040	54	144	.417
2	mobile phone are you using currently	.530a	.281	***.011***	.286	.281	1.042	54	144	.415
3	How often do you buy vitamin supplements	.578a	.334	***.084***	1.288	.334	1.337	54	144	.089
4	solar panels installed in your home	.679a	.461	***.258***	.415	.461	2.268	54	143	.000
5	would like to have Solar Panels on my house	.715a	.512	***.328***	.668	.512	2.793	54	144	.000
6	would recommend solar panel installation to friends and family	.645a	.415	***.196***	.719	.415	1.895	54	144	.001
7	I prefer solar power to electricity	.649a	.422	***.202***	.794	.422	1.918	54	142	.001
8	I prefer solar power to gas	.694a	.482	***.284***	.806	.482	2.430	54	141	.000
9	Solar panels are affordable	.762a	.581	***.420***	.822	.581	3.613	54	141	.000
10	I know enough about solar panel as a consumer	.765a	.585	***.428***	.945	.585	3.732	54	143	.000
11	solar panels produce clean energy	.707a	.500	***.313***	.709	.500	2.668	54	144	.000
12	I prefer energy from solar panels to that from oil	.661a	.436	***.225***	.790	.436	2.065	54	144	.000

Appendix 4: ANOVA

	Dependent Variables	Model	Sum of Squares	df	Mean Square	F	Sig.
1	How often do you buy chocolate?	Regression	44.650	54	.827	1.040	.417[a]
		Residual	114.456	144	.795		
		Total	159.106	198			
2	What kind of mobile phone are you using currently?	Regression	4.599	54	.085	1.042	.415[a]
		Residual	11.773	144	.082		
		Total	16.372	198			
3	How often do you buy vitamin supplements	Regression	119.719	54	2.217	1.337	.089[a]
		Residual	238.703	144	1.658		
		Total	358.422	198			
4	Do you have any solar panels installed in your home?	Regression	21.140	54	.391	2.268	.000[a]
		Residual	24.678	143	.173		
		Total	45.818	197			
5	I would like to have Solar Panels on my house.	Regression	67.290	54	1.246	2.793	.000[a]
		Residual	64.237	144	.446		
		Total	131.528	198			
6	I would recommend solar panel installation to friends and family	Regression	52.906	54	.980	1.895	.001[a]
		Residual	74.431	144	.517		
		Total	127.337	198			
7	I prefer solar power to electricity	Regression	65.378	54	1.211	1.918	.001[a]
		Residual	89.627	142	.631		
		Total	155.005	196			
8	I prefer solar power to gas	Regression	85.315	54	1.580	2.430	.000[a]
		Residual	91.685	141	.650		
		Total	177.000	195			
9	Solar panels are affordable	Regression	131.918	54	2.443	3.613	.000[a]
		Residual	95.327	141	.676		
		Total	227.245	195			
10	I know enough about solar panel as a consumer	Regression	179.833	54	3.330	3.732	.000[a]
		Residual	127.622	143	.892		
		Total	307.455	197			
11	solar panels produce clean energy	Regression	72.514	54	1.343	2.668	.000[a]
		Residual	72.481	144	.503		
		Total	144.995	198			
12	I prefer energy from solar panels to that from oil	Regression	69.615	54	1.289	2.065	.000[a]
		Residual	89.883	144	.624		
		Total	159.497	198			

Appendix 5: Independent Variables that have impact on two or more variables

No.	Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t-test value	Sig.	Dependent Variables
		B	Std. Error	Beta			
1	The most advertised brands are usually very good choices	.203	.082	.259	2.490	.014	How often do you buy chocolate?
		0.160	0.074	0.192	2.153	0.033	I prefer solar power to gas
		0.199	0.076	0.212	2.605	0.010	Solar panels are affordable
		0.133	0.065	0.177	2.043	0.043	solar panels produce clean energy
2	To get variety, I shop different stores and choose different brands	0.061	0.027	0.215	2.295	0.023	What kind of mobile phone are you using currently?
		0.146	0.067	0.185	2.192	0.030	I would recommend solar panel installation to friends and family
4	Getting very good quality is very important to me	0.098	0.042	0.218	2.330	0.021	Do you have any solar panels installed in your home?
		-0.166	0.084	-0.165	-1.982	0.049	Solar panels are affordable
5	All the information I get on different products confuses me	-0.086	0.039	-0.206	-2.170	0.032	Do you have any solar panels installed in your home?
		0.203	0.063	0.289	3.208	0.002	I would like to have Solar Panels on my house
		0.156	0.068	0.226	2.297	0.023	I would recommend solar panel installation to friends and family
		0.170	0.077	0.208	2.216	0.028	I prefer solar power to gas
		0.145	0.067	0.197	2.160	0.032	solar panels produce clean energy
6	are reducible	-0.150	0.062	-0.285	-2.433	0.016	Do you have any solar panels installed in your home?
		0.198	0.099	0.221	1.988	0.049	I would like to have Solar Panels on my house
7	are biodegradable	-0.211	0.100	-0.233	-2.110	0.037	I would like to have Solar Panels on my house
		0.320	0.143	0.231	2.232	0.027	I know enough about solar panel as a consumer
8	are good for the planet	0.284	0.107	0.316	2.663	0.009	I would like to have Solar Panels on my house
		-0.289	0.134	-0.243	-2.156	0.033	Solar panels are affordable
9	I prefer buying the best-selling brands	-0.146	0.071	-0.180	-2.064	0.041	I prefer solar power to electricity
		-0.187	0.070	-0.228	-2.669	0.008	I prefer energy from solar panels to that from oil
10	are re-usable	0.305	0.112	0.305	2.730	0.007	solar panels produce clean energy
		0.269	0.124	0.256	2.163	0.032	I prefer energy from solar panels to that from oil

Appendix 6: Coefficients

No.	Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t-test value	Sig.	Dependent Variables
		B	Std. Error	Beta			
1	The most advertised brands are usually very good choices	.203	.082	.259	2.490	.014	How often do you buy chocolate?
2	To get variety, I shop different stores and choose different brands	0.061	.027	0.215	2.295	.023	What kind of mobile phone are you using currently?
3	I should plan my shopping more carefully than I do	-0.059	.028	-0.196	-2.095	.038	
4	I make my shopping trips fast	-0.249	.106	-0.207	-2.345	.020	How often do you buy vitamin supplements
5	Getting very good quality is very important to me	0.098	.042	0.218	2.330	.021	Do you have any solar panels installed in your home?
6	When it comes to purchasing products, I try to get the very best or perfect choice	-0.100	.040	-0.210	-2.499	.014	
7	All the information I get on different products confuses me	-0.086	.039	-0.206	-2.170	.032	
8	are reducible	-0.150	.062	-0.285	-2.433	.016	
9	In general, I usually try to buy the best overall quality	0.163	.063	0.206	2.580	.011	I would like to have Solar Panels on my house
10	The higher the price of a product, the better its quality	-0.164	.056	0.056	-2.927	.004	
11	All the information I get on different products confuses me	0.203	.063	0.289	3.208	.002	
12	are biodegradable	-0.211	.100	-0.233	-2.110	.037	
13	are recyclable	0.248	.112	0.259	2.207	.029	
14	are good for the planet	0.284	.107	0.316	2.663	.009	
15	are certified to be environmentally-friendly	-0.271	.129	-0.252	-2.102	.037	
16	are reducible	0.198	.099	0.221	1.988	.049	
17	To get variety, I shop different stores and choose different brands	0.146	.067	0.185	2.192	.030	I would recommend solar panel installation to friends and family
18	All the information I get on different products confuses me	0.156	.068	0.226	2.297	.023	
19	I prefer buying the best-selling brands	-0.146	.071	-0.180	-2.064	.041	I prefer solar power to electricity
20	The most advertised brands are usually very good choices	0.160	.074	0.192	2.153	.033	I prefer solar power to gas
21	I usually have one or more outfits of the very newest style	0.170	.082	0.191	2.071	.040	
22	There are so many brands to choose from that often I feel confused	-0.177	.084	-0.209	-2.114	.036	
23	All the information I get on different products confuses me	0.170	.077	0.208	2.216	.028	
24	Getting very good quality is very important to me	-0.166	.084	-0.165	-1.982	.049	Solar panels are affordable
25	I make special effort to choose the very best quality products	-0.274	.078	-0.268	-3.515	.001	
26	The most advertised brands are usually very good choices	0.199	.076	0.212	2.605	.010	
27	Going shopping is one of the enjoyable activities of my life	0.211	.079	0.210	2.673	.008	
28	are good for the planet	-0.289	.134	-0.243	-2.156	.033	
29	adhere to fair trade principles	0.313	.121	0.245	2.593	.011	
30	are biodegradable	0.320	.143	0.231	2.232	.027	I know enough about solar panel as a consumer
31	I prefer to buy global brands when available	0.208	.102	0.154	2.026	.045	
32	I really don't give my purchases much thought or care	0.129	.059	0.185	2.180	.031	solar panels produce clean energy
33	The most advertised brands are usually very good choices	0.133	.065	0.177	2.043	.043	
34	All the information I get on different products confuses me	0.145	.067	0.197	2.160	.032	
35	are re-usable	0.305	.112	0.305	2.730	.007	
36	I prefer buying the best-selling brands	-0.187	.070	-0.228	-2.669	.008	I prefer energy from solar panels to that from oil
37	are re-usable	0.269	.124	0.256	2.163	.032	
38	I prefer national brands whenever available	0.228	.096	0.234	2.368	.019	

Appendix 7: Independent Variables that affected only one DV

No.	Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t-test value	Sig.	Dependent Variables
		B	Std. Error	Beta			
1	I should plan my shopping more carefully than I do	-0.059	0.028	-0.196	-2.095	0.038	What kind of mobile phone are you using currently?
2	I make my shopping trips fast	-0.249	0.106	-0.207	-2.345	0.020	How often do you buy vitamin supplements
3	When it comes to purchasing products, I try to get the very best or perfect choice	-0.100	0.040	-0.210	-2.499	0.014	Do you have any solar panels installed in your home?
4	In general, I usually try to buy the best overall quality	0.163	0.063	0.206	2.580	0.011	I would like to have Solar Panels on my house
	The higher the price of a product, the better its quality	-0.164	0.056	0.056	-2.927	0.004	
	are recyclable	0.248	0.112	0.259	2.207	0.029	
	are certified to be environmentally-friendly	-0.271	0.129	-0.252	-2.102	0.037	
5	I usually have one or more outfits of the very newest style	0.170	0.082	0.191	2.071	0.040	I prefer solar power to gas
	There are so many brands to choose from that often I feel confused	-0.177	0.084	-0.209	-2.114	0.036	
6	I make special effort to choose the very best quality products	-0.274	0.078	-0.268	-3.515	0.001	Solar panels are affordable
	Going shopping is one of the enjoyable activities of my life	0.211	0.079	0.210	2.673	0.008	
	adhere to fair trade principles	0.313	0.121	0.245	2.593	0.011	
7	I prefer to buy global brands when available	0.208	0.102	0.154	2.026	0.045	I know enough about solar panel as a consumer
8	I really don't give my purchases much thought or care	0.129	0.059	0.185	2.180	0.031	solar panels produce clean energy
9	I prefer national brands whenever available	0.228	0.096	0.234	2.368	0.019	I prefer energy from solar panels to that from oil

Appendix 8: GREEN Independent Variables

	Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t-test value	Sig.	Dependent Variables
		B	Std. Error	Beta			
1	are reducible	-0.150	0.062	-0.285	-2.433	0.016	Do you have any solar panels installed in your home?
2	are biodegradable	-0.211	0.100	-0.233	-2.110	0.037	I would like to have Solar Panels on my house
3	are recyclable	0.248	0.112	0.259	2.207	0.029	
4	are good for the planet	0.284	0.107	0.316	2.663	0.009	
5	are certified to be environmentally-friendly	-0.271	0.129	-0.252	-2.102	0.037	
	are reducible	0.198	0.099	0.221	1.988	0.049	
	are good for the planet	-0.289	0.134	-0.243	-2.156	0.033	Solar panels are affordable
6	adhere to fair trade principles	0.313	0.121	0.245	2.593	0.011	
	are biodegradable	0.320	0.143	0.231	2.232	0.027	I know enough about solar panel as a consumer
7	are re-usable	0.305	0.112	0.305	2.730	0.007	solar panels produce clean energy
	are re-usable	0.269	0.124	0.256	2.163	0.032	I prefer energy from solar panels to that from oil