



The impact of using closed- loop supply chain on raising Egyptian customers' sustainable consumerism: Testing the mediating role of customer value in FMCG industry

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Abstract:

Purpose – The issue of sustainable consumption is becoming increasingly significant and intricate. There are few other matters that merge the careless actions of individuals in their daily lives with the theoretical aspects of ethical obligation and the connection between humanity and the environment. Research on sustainable consumer behaviour is mainly dominated by two perspectives - the demand side, which reflects customer value, and the supply side, which is represented by firms' supply chain strategies. Closed-loop Supply Chain (CLSC) is a method used to address the aforementioned imbalance, among various other strategies. So, the main purpose of the article is to clarify the impact of Closed-loop Supply Chain (CLSC) on raising Egyptian customers' sustainable consumerism (Care for environmental well-being, Care for the future generations and Quality of life) by studying the mediation effect of customer value by providing an explanation of the definition, description, advantages and disadvantages, significance, examples from literature, and possible research, one can acknowledge its role as a catalyst for promoting sustainable consumerism in the FMCG market in Egypt.

Design/methodology/approach – A survey was conducted with a structured questionnaire for a sample of 500 Egyptian consumer. The conceptual model was analysed using structural equation modelling (SEM) in this study. Scholars recommend PLS as the most fully developed and general system for variance-based structured equation modelling. Also, we test the measurement model for reliability and validity assessment through confirmatory factor analysis (CFA) using Covariance-based structured equation modelling software (AMOS V. 24). We adopted PLS path modelling since it has been widely utilised in management and related domains. Because the goal of this investigation was to predict the dependent variable based on explanatory approach, PLS path modelling was chosen as an appropriate investigative approach using Smart PLS 3 software.

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Findings – Results revealed that CLSC has no significant direct effect on Sustainable consumerism (Care for environmental well- being, Care for the future generations and Quality of life). Also, all sub-hypotheses concerning this hypothesis were rejected except that CLSC has positive and significant effects on Care for environmental well- being. On the other hand, statistical results show significantly positive effects of Customer value on Sustainable consumerism. Additionally, Customer value has significant effect on the dimensions of Sustainable consumerism; as for Care for environmental well-being, Care for the future generations, and Quality of life. Similarly, there is positive and significant effects of CLSC on Customer value. Finally, customer value positively and significantly mediates between the relationship of CLSC, and sustainable consumerism. Consequently, CLSC has a significant indirect effect on Sustainable consumerism (Care for environmental well- being, Care for the future generations and Quality of life).

Originality/value – This article was carried out because only a few studies have examined the influence of closed-loop supply chain, customer value on raising Egyptian customers' sustainable consumerism specially in FMCG markets. Finally, this study fills the gap in the existing literature and concludes with a discussion on the contributions, limitations as well as suggestions for future research.

Keywords – Closed-loop supply chain, Sustainable consumerism, Customer value, FMCG markets, Egyptian consumers.

Paper type – Research paper

1- Introduction:

While it is crucial to observe the conduct of sustainable consumers, it is equally vital to consider the motive behind their conduct. Although purchasing decisions may appear to be rational and logical, they are often influenced by an emotional stimulus and the evaluation of the product's utility. When selecting environmentally friendly products, consumers who have sustainable behaviours make their choices based on their values and ethics. According to Shaefer and Crane, individuals who are mindful are willing to dedicate their time, effort, and money to demonstrate their commitment to preserving nature and protecting the ecosystem. Understanding the underlying principles that drive customers to make sustainable choices is of utmost importance in order to foster the adoption of

sustainable consumerism (Fischer, D.; Böhme, T.; Geiger, S.M.,2017). Through the study and application of the principles governing consumer behavior, it becomes evident that the purchasing decisions made by consumers are heavily influenced by cultural, social, and individual factors. The model utilized to analyze consumer behavior demonstrates that consumers are impacted by both internal and external factors. Moreover, with the rise of the sustainable development movement, consumers are increasingly motivated by external stimuli to make consumption choices aligned with sustainability goals. Many research studies have shown that people who have higher levels of education tend to have a stronger sense of social responsibility and actively participate in efforts to promote sustainable development. (Youcheng Wang, 2020). Consumers endeavor to incorporate principles of resource conservation and ecological environmental protection into their consumption patterns, thereby establishing them as societal norms. Furthermore, through the reciprocal relationship between consumption and production, the concept of sustainability permeates the entire lifecycle of a product, leading to reduced resource consumption and enhanced environmental protection (Connolly J. and Prothero A., 2008). An overview of previous research in the field of sustainable consumption and a brief review of the literature led to the development of a pool of items to be measured to enable the measurement of the concept of sustainable consumerism. In this regard, Farzana Quoquab and Shirshova O., highlighted three parameters of sustainable consumerism, which are (Care for the environmental well-being, Quality of Life and Care for the Future generations), also the pilot study was then conducted to gain in-depth understanding of the phenomenon (Farzana Quoquab et al., 2019; Shirshova O., et al., 2018).

As its name implies, a closed loop supply chain (CLSC) is a system in which the cycle is cycled repeatedly in order to achieve higher levels of sustainability and sustainability in consumption. As a result of the implementation of CLSC, landfill waste could be reduced as wastes from one process are being used as resources for another or even the same process. Furthermore, CLSC provides better alternatives for Extended Producer Responsibilities (EPR), so producers can both meet their obligations and gain from cost savings from CLSC recovery activities (Guide and van Wassenhove, 2006). The market has been given a wide range of products with various functional features, thanks to the rapid advancement of science and technology. These products are designed to cater to the diverse needs of people. Unfortunately, the production process inevitably generates a

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significant amount of faulty and unused items, leading to both environmental pollution and resource wastage (Bablu, G.K., et al, 2022). Recycling and remanufacturing utilized goods can achieve not only the utilization of resources but also the reduction of manufacturing expenses and aid companies in attaining higher profits. Several companies, like Dell, Samsung, and Hewlett-Packard, have implemented rational recycling systems. These systems not only promote the development of environmentally conscious, low-carbon, and eco-friendly economic frameworks, but they also yield economic advantages (Liu, L., et al, 2023).

As a source of competitive advantage in Egyptian FMCG markets, customer value is essential to achieving customer satisfaction, loyalty, and switching to eco-friendly products. Numerous researchers (Abdel, 2008; Tseng et al., 2007; Guenzi & Troilo, 2007; O'Cass & Ngo, 2012; Troilo et al., 2009; Vera & Trujillo, 2013) agreed that companies compete in offering more expert customer value. Value propositions offered by companies and their competitors will determine which consumers will choose. It is important for sustainable brands to carefully select the Customer Value Proposition. The organization's financial success depends on how well it manages value, which includes what customers perceive and the cost of providing value. (Sexton, 2014). In addition, academics state the significant need for FMCG companies to refocus the way of delivering, using, and recapturing goods as well aimed at better retainment of valuable resources within a CLSC (Walkter et al. (2015). Not only because it can be beneficial for themselves, but also because societal gains can be even greater than ever, because firms are far more effective than governments and nonprofits at motivating people to embrace new concepts, such as healthier food or environmental friendly products (Kramer and Porter, 2011). So that the current study examines the effect of customer value on raising sustainable consumerism.

This study provides a comprehensive overview of the current situation and progress of the Egyptian Fast Moving Consumer Goods (FMCG) industry in the light of CLSC. This sector is characterized by goods with a relatively short service life and low unit costs. All together, they account for 35% of all materials used, often not recycled, and around 80% of these materials end up in landfills, incinerators or wastewater and are never recovered (Bocken, N. et al., 2014). Thus, there is a significant need to rethink the way these products are delivered, used, recaptured within the FMCG industry to ensure that valuable materials can return back in a closed loop supply chain (MacArthur,

2013, Walker et al., 2015). This need is already identified by academics; however, many firms still lack the knowledge and practical evidence to identify how to go through this circular transition successfully and efficiently (Antikainen & Valkokari, 2016, Hatcher et al., 2011). The lack of innovative models and awareness of existing models makes it hard for FMCG firms to shape the future with the ultimate goal of enabling CLSC transformation (Velter, M. et al., 2020).

2- Problem Formulation:

For policy-makers, society, companies and customers, sustainable consumerism raises crucial ethical issues. Additionally, as the world experiences environmental challenges and nature degradation, which also affect people's habitats and quality of life, sustainability has become one of the most important topics of the modern era. Additionally, the results of pilot study show that 72 % of participant say that the price of CLSC is very expensive and performance of the remanufactured product is likely to be worse than that of the new one in Egyptian FMCG market. Also 63% of participants confirm that products don't meet specifications. On the other hand, 80% of participants specially females say that they recycle glass bottle (drinking water bottle) as a container in the kitchen and food container whenever there is an opportunity. In addition, 92% of male participants say that they reuse paper to write on the other side. So that the problem can be summarized as: "The Egyptian FMCG consumers do not believe in sustainable consumption due to the low value of environmentally friendly products and the lack of FMCG companies' support for closed supply chain activities". Accordingly, the problem of the study is in the following questions:

- 1- What is the impact of closed-loop supply chain (CLSC) activities on both customer value and sustainable consumerism in Egyptian market? What are the benefits of closed-loop supply chain (CLSC) activities?
- 2- What is the impact of customer value on sustainable consumerism in Egyptian FMCG market?
- 3- Is there a significant mediating effect of customer value on the relationship between using closed- loop supply chain and raising Egyptian customers' sustainable consumerism?

3- Theoretical background:

3.1: Closed-loop supply chain:

CLSC establishes eco-friendly methodologies by effectively utilizing end-of-life commodities, instead of embracing inefficient streams of disposable products that ultimately end up in landfills. Correspondingly, the fundamental principle behind take-back legislation posits that organizations will retrieve larger amounts of utilized materials and employ them in various sustainable practices like remanufacturing, recycling, and others. Companies play a crucial and proactive part in mitigating the adverse effects on the environment through their active engagement in such actions (Masoudipour, E., Amirian, H., & Sahraeian, R., 2017). The management of a closed-loop supply chain (CLSC) refers to the process of designing, controlling, and operating a system with the objective of maximizing value creation throughout the entire life cycle of a product. This involves the dynamic recovery of value from various types and quantities of returns over time. The aforementioned definition has progressed from the mere integration of the forward and reverse channels of the supply chain. Recently, there has been a significant and notable focus on closed-loop supply chain management (CLSCM) in both the industry and academic community (Kazemi, N., et al, 2019; Kim, J., et al, 2018). Supply chain management (SCM) can be described as a process consisting of various stages, including design, control, and operation, with the objective of maximizing the value generated throughout the lifespan of products and dynamically recovering value from returns of different sizes and types over time (Darbari, J.D., et al, 2019). Moreover, closed-loop supply chain management facilitates the recycling and reuse of products in the manufacturing process (Zhou, L., et al, 2017). This system also takes into account the entire life cycle of a product, encompassing activities such as procurement of raw materials, production of final products, market distribution, and finding end-users. The overall life cycle significantly impacts the feasibility of achieving desired corporate objectives. However, in closed-loop supply chains, materials, products, and information are moved forward and backward in two distinct flows: forward logistics and reverse supply chains (Ramanathan, U., et al, 2018).

Finally, 68% of survey participants say that purchasing a remanufactured product will help minimize harmful atmospheric emissions and a remanufactured product will help minimize landfill waste Based on the existing literature and statistical analysis. Also manufacturing practitioners and

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experts confirms that providing appropriate warranty may motivate consumers to purchase a remanufactured product, we hypothesize that

H1: Closed-loop supply chain activities will positively affect sustainable consumerism (Care for environmental well- being, Care for the future generations and Quality of life)

H1.1: Closed-loop supply chain activities will positively affect Care for environmental well- being

H1.2: Closed-loop supply chain activities will positively affect Care for the future generations

H1.3: Closed-loop supply chain activities will positively affect Quality of life

H2: Closed-loop supply chain activities will positively affect customer value (functional value, economic value and social value)

3.2: Customer Value:

Value is a crucial element in the establishment of a competitive edge in the realm of CLSC development. It can be characterized as an assessment of the consumer's comprehensive perception of the usefulness of the product, derived from their perception of the benefits received in exchange for their contributions (Ann Suwaree et al., 2020). Customer Perceived value refers to the decision made by the Customer, considering various aspects independently, when faced with different options in any given situation. In the field of CLSC, the concept of perceived value encompasses the price, quality, and benefit that align with the needs and desires of customers; it encompasses both monetary and non-monetary aspects (Koller et al., 2011). Indeed, superb customer value results in customer satisfaction and loyalty, superior performance, and profitability (The Ninh, N. et al., 2015). This study will investigate multidimensional value perception development for CLSC. The concept includes three essential value dimensions: firstly, functional value, which defines as the perceived usefulness derived from an alternative's ability to perform functionally or physically, and has positively affected perceived consumer value as well as consumer willingness to pay (Cronin et al., 2000; Lapierre, 2000). Remanufactured products, should be substantially similar to new components in terms of objective quality and performance (Hazen, B.T. et al., 2017), Consumers may value remanufactured components less than new ones because they believe they are of poorer quality (Ferrer and Swaminathan, 2006), this is particularly important for FMCG where

consumers have been conditioned to demand products of high merchantable quality. Secondly, social value, concentrating on interaction/experiences with the local community's lifestyle at a cultural attraction (Sheth, J. et al., 1991). Social value refers to the perceived benefit obtained from an alternative's affiliation with one or multiple particular social groups. An alternative gains social value through its connection with demographic, socioeconomic, and cultural-ethnic groups that are either positively or negatively stereotyped (Koller, M., et al., 2011). Finally, economic value, it is the value derived by the customer after comparing the price paid with the perceived worth of the item. Additionally, 88% of survey participants say that they will use CLSC products when the companies which launching these products supporting and increasing its functional and economic value. Based on the existing literature and statistical results, we hypothesize that

H3: customer value (functional value, economic value and social value) will positively affect sustainable consumerism (Care for environmental well-being, Care for the future generations and Quality of life)

H3.1: customer value (functional value, economic value and social value) will positively affect Care for environmental well- being

H3.2: customer value (functional value, economic value and social value) will positively affect Care for the future generations

H3.3: customer value (functional value, economic value and social value) will positively affect Quality of life

3.3: Sustainable consumerism:

In recent times, the concept of sustainable consumerism has gained significant attention because of its impact on the economy, society, and environment (Farzana Quoquab et al., 2019; Abdulrazak and Quoquab, 2018; Minton et al., 2018). It proposes the adoption of a prudent consumption behavior that demonstrates concern for the well-being of the environment (Quoquab, F., et al., 2017; Wolff and Schönherr, 2011).

It is evident that there is a noticeable increase in the excessive utilization and inadequate exploitation of environmental resources, leading to a considerable decline in the accessibility of Earth's vital resources (Bogueva et al., 2017; Alisat and Reimer, 2015). Undoubtedly, the phenomenon of the greenhouse effect, the swift exhaustion of vital natural resources, and the occurrence of global warming present a significant peril to the standard of

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living and even the very survival of the human race. Therefore, it is evident that there is a need for a transition from traditional patterns of consumption to the adoption of sustainable consumption behavior (SCB) (Farzana Quoquab et al., 2019; Tangsupwattana and Liu, 2017). This environmental movement cannot be exclusively advanced by the government or social marketers. It is imperative for consumers themselves to assume a specific degree of accountability in order to reinforce this movement.

Quoquab and Mohammad ,2017 presented a comprehensive explanation in which they viewed sustainable consumerism as a multifaceted concept. They believed that it is denoted by the ongoing practice of restraining one's desires by refraining from extravagant purchases and rationalizing the utilization of goods and services that fulfill essential needs. It surpasses mere environmental concern by ensuring the effective management of existing resources, which not only satisfy current demands but also safeguard the needs of future generations. This practice guarantees the fulfillment of three crucial aspects: the enhancement of quality of life, the preservation and protection of the environment, and the preservation of natural resources for the benefit of future generations (Quoquab, F. and Mohammad, J., 2017). It can be understood as consumer behavior that aims to fulfill the immediate needs of the individual while ensuring the preservation of the needs of future generations. This is achieved by using and utilizing resources that are generated with consideration for both social and ecological well-being. It is important to differentiate between the concepts of "sustainable consumption" and "responsible consumption". Responsible consumption is a result of an individual's concern for their own health and well-being, whereas sustainable consumption entails a broader concern for the well-being of society and its overall condition (Connolly, J. and Prothero, A., 2003).

Quality of life (QoL) is characterized by high quality of life in a healthy environment, without overusing natural resources, for present and future generations. Therefore, high QoL is related to social, ecological, and equality demands. Quality of life is therefore assessed intergenerationally as well as intragenerationally, rather than from an individual viewpoint. (Wiesli, TX et al., 2021).

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Environmentally-sustainable behavior is the particular behavior of an individual that does not cause harm to the environment, and may even have a positive impact. In a logical and coherent manner, environmentally-sustainable consumer behavior, as described in this study, pertains to the actions of an individual that minimally impact the environment or may even contribute to its well-being during the consumption of a product or service (Heesup Han, 2021). It is important to realize that environmentally-sustainable consumption encompasses a wide range of consumer behaviour that assists in reducing the impact of consumption on the environment (Han, H. 2020).

Issues about protecting present generations while also addressing the welfare of future generations come before issues about sustainable development. In the 1970s, the natural environment, future generations' rights, and guaranteeing justice so that one generation did not take more from the world than it put back emerged as global policy concerns (Chris Shiel, et al., 2020). Intergenerational fairness is based on the principles of justice and rights. This means that because each new generation inherits the Earth from those who came before them, the current generation has a moral duty to ensure that what they pass on to future generations is both fair and sustainable. Our Common Future not only provided a clear definition, but also firmly established the concept of sustainable development in order to meet the goals of human progress. It also emphasized the need for growth to occur within a delicate ecosystem and warned that unsustainable consumption and lifestyles would deplete limited resources in a way that would put the future at risk. Solutions would require a collective sense of responsibility; there would be a need to enhance awareness and education in order to cultivate a transformation in behavior, across all levels and throughout the entire globe. (Csigéné Nagypál, N. et al., 2015).

The promotion of sustainable consumerism encourages the practice of environmentally friendly and sensible consumption. Consumers aim to incorporate the principles of conserving resources and protecting the environment into societal norms through the choices they make when consuming goods. By implementing the opposite process of consumption in production, the idea of sustainability becomes an integral part of a product's entire life cycle. This approach aims to decrease resource consumption and enhance environmental protection (Youcheng Wang, 2020). Finally, 96% of the participants in the survey have stated that they make an effort to decrease

their usage of water and electricity by considering the needs of others. Additionally, 87% of the participants have confirmed that they attempt to minimize excessive consumption in order to preserve the environment's resources. This includes 77% of the participants who aim to avoid over-consumption of goods and services, as well as 83% of the participants who strive to reduce the misuse of such resources. Finally, 79% of the participants consistently make a conscious effort to reduce the unnecessary consumption of goods and services. Based on the existing literature and statistical results, we hypothesize that

H4: customer value (functional value, economic value and social value) mediates the relationship between Closed-loop supply chain activities and sustainable consumerism (Care for environmental well-being, Care for the future generations and Quality of life)

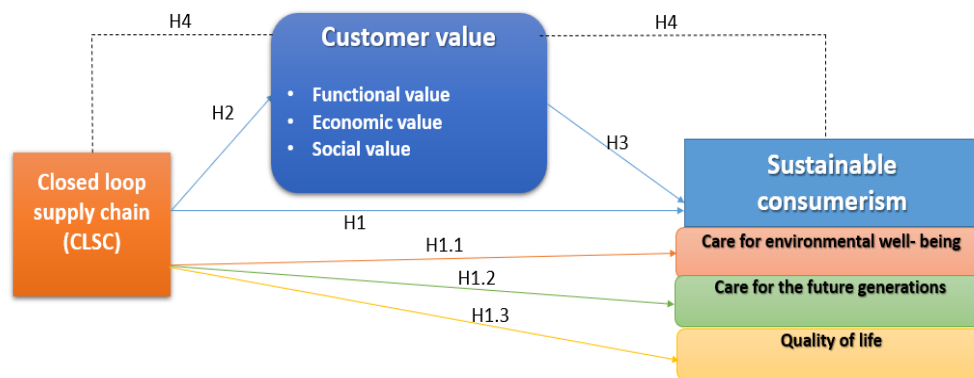


Figure 1: Conceptual Framework (Study Hypotheses)

4- Data Collection and Sample

The study employed the questionnaire method to gather data for model testing from a post-positive perspective. Consequently, the investigation utilized non-probability sampling, specifically the purposive sample approach. In order to incorporate the purposive sample technique into the data collection process, participants were required to acquire and utilize at least one eco-friendly product. Moreover, the study was limited to Egyptian consumers throughout the entire research period. The sampling method was chosen to collect data for the field study of consumers due to the large size of the customer base, as well as the timing and cost factors that serve as limitations for research. After considering the principle of large numbers, the size of the sample was evaluated and determined to be 500 participants.

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A questioner was used to collect data, and a Likert scale of five points ranging from strongly disagree (1) to strongly agree (5) was used to analyse every attitude item. We collected 507 responses, 500 were kept for analysis, the data gathering lasted about six months (from July 2023 to December 2023).

As shown in Table (1), certain previous studies has been conducted to obtain the measurements of the variables included and the number of items. The study encompassed four types of variables: Closed-loop supply chain as the independent variable, sustainable consumerism as the dependent variable, customer value as the mediating variable. The questions were formulated and revised based on the guidance provided by literature, and the responses were evaluated using a Likert scale consisting of five points.

Table 1: The measures used in the study

Variable	Number of items	Reference
Closed-loop supply chain	8	(Bablu, G.K., et al, 2022; Kazemi, N., et al, 2019; Kim, J., et al ,2018; Darbari, J.D., et al, 2019)
Customer value	11	(Ann Suwaree et al., 2020; Hazen, B.T. et al., 2017; Koller, M., et al., 2011)
Sustainable consumerism	19	(Wiesli, TX et al., 2021; Chris Shiel, et al., 2020; Farzana Quoquab et al., 2019; Tangsupwattana and Liu, 2017)

Data was cleaned by deleting incorrect answers, defective questionnaires, or data editing with a simple misinterpretation case or loss of focus. The fields were left empty for the incomplete entries.

5- Research Methodology:

The conceptual model was analysed using structural equation modelling (SEM) in this study. Scholars recommend PLS as the most fully developed and general system for variance-based structured equation modelling (Hair et al., 2021). Also, we test the measurement model for reliability and validity assessment through confirmatory factor analysis (CFA) using Covariance-based structured equation modelling software (AMOS V. 24). We adopted PLS path modelling since it has been widely utilised in management and related domains. Because the goal of this investigation was to predict the

dependent variable based on explanatory approach, PLS path modelling was chosen as an appropriate investigative approach using SmartPLS 3 software. The issue of missing data was investigated, and it was indicated that some indicators contain missing data; to address this issue, the EM algorithm was utilised as it offers the best accurate estimates at all levels of missing data (Roth, 1994; Little and Rubin, 2019). Harman's single-factor test was used to investigate common method bias (CMB); the proportion of the factor's explained variation for the common factor (28%) was less than 50%, suggesting the absence of this issue (MacKenzie and Podsakoff, 2012).

5.1 Demographic information

Table 2 displays the survey respondents' demographic information, such as gender, age, education, income, and marital status.

Table 2: Demographic information

	Category	N	%
Gender	<i>Female</i>	219	44.3%
	<i>Male</i>	275	55.7%
Age	<i>20 -30</i>	327	65.8%
	<i>31-40</i>	72	14.5%
	<i>41-50</i>	73	14.7%
	<i>More than 50</i>	25	5.0%
Education Level	<i>Student</i>	232	46.5%
	<i>Intermediate Qualification</i>	10	2.0%
	<i>Graduate</i>	120	24.0%
	<i>Post Graduate</i>	137	27.5%
Income	<i>2000-5000</i>	211	50.0%
	<i>5001-10000</i>	56	13.3%
	<i>Ttgb 10001-20000</i>	93	22.0%
	<i>More Than 20000</i>	62	14.7%
Marital Status	<i>Single</i>	354	71.5%
	<i>Married</i>	141	28.5%

5.2 Confirmatory factor analysis & measurement model

Individual item reliability, convergent reliability, and discriminant validity were used for analysing the measurement model, as proposed by previous studies. CFA is conducted to quantify, test and confirmed a priori proposed or hypothetical structure of the relationships among a set of considered measures (Raykov & Marcoulides, 2008).

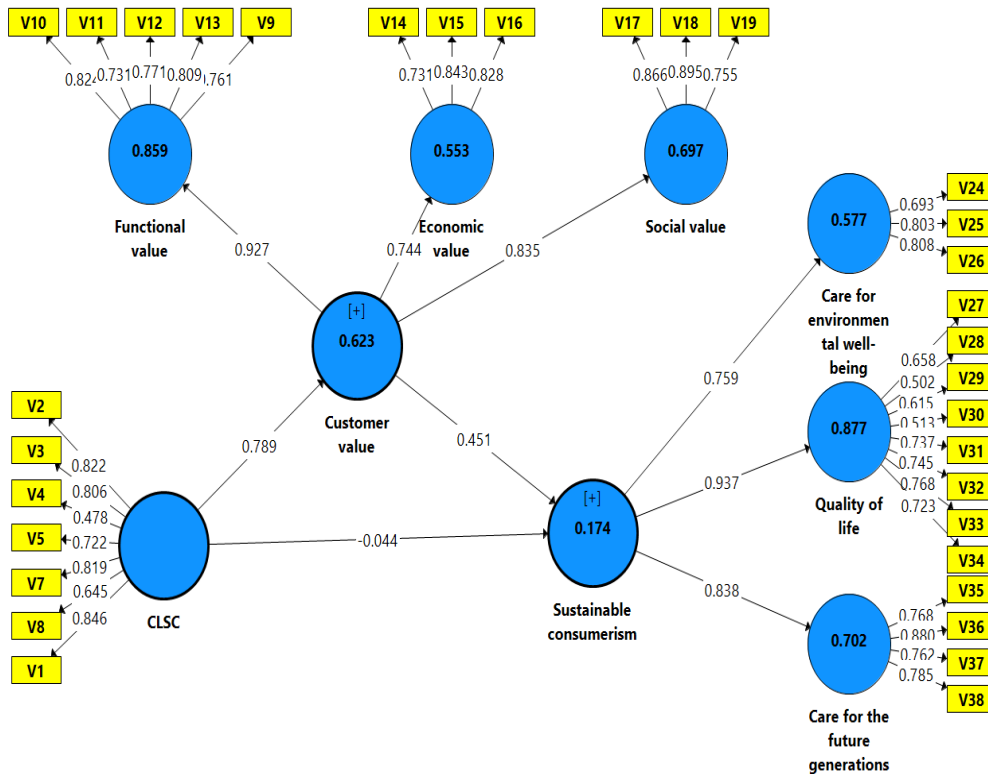


Figure 2: Measurement model

Table 3: Measurement model

Construct/Item		PLS Loading	CFA Loading	Cronbach Alpha	CR	AVE
CLSC				0.86	0.894	0.554
	V1	0.846	0.882			
	V2	0.822	0.816			
	V3	0.806	0.763			
	V4	0.478	0.382			
	V5	0.722	0.584			
	V7	0.819	0.762			
	V8	0.645	0.557			
Functional value				0.839	0.886	0.608
	V9	0.761	0.594			
	V10	0.824	0.707			
	V11	0.731	0.628			
	V12	0.771	0.717			
	V13	0.809	0.793			
Economic value				0.726	0.844	0.644
	V14	0.731	0.507			
	V15	0.843	0.818			
	V16	0.828	0.646			
Social value				0.791	0.878	0.707
	V17	0.866	0.841			
	V18	0.895	0.806			
	V19	0.755	0.55			
Care for environmental well- being				0.652	0.813	0.593
	V24	0.693	0.557			
	V25	0.803	0.461			
	V26	0.808	0.575			
Quality of life				0.814	0.861	0.442
	V27	0.658	0.598			
	V28	0.502	0.461			
	V29	0.615	0.642			
	V30	0.513	0.384			
	V31	0.737	0.779			
	V32	0.745	0.614			
	V33	0.768	0.586			
	V34	0.723	0.5			
Care for the future generations				0.811	0.876	0.64
	V35	0.768	0.745			
	V36	0.88	0.848			
	V37	0.762	0.666			
	V38	0.785	0.627			

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Table 4: CFA model fit indices

Index	CMIN	DF	CMIN/DF	NFI	IFI	TLI	CFI	RMSEA
Cut-off	-	-	<5	>0.9	>0.9	>0.9	>0.9	<0.1
<i>CLSC</i>	34.936	11	3.176	0.978	0.985	0.97	0.984	0.066
<i>Customer value</i>	174.173	35	4.976	0.93	0.943	0.91	0.943	0.089
<i>Sustainable consumerism</i>	320.957	65	4.938	0.91	0.927	0.881	0.926	0.089

The CFA's validity should be assessed in two steps: (1) goodness-of-fit (GoF) indices, and (2) reliability and validity (Hair et al., 2014). According to Hair et al. (2014), CFA should be subjected to at least four model fit tests. The following goodness-of-fit metrics were used in this study: Chi-Square test (CMIN), normed fit index (NFI), incremental fit index (IFI), Tucker-Lewis Index (TLI), comparative fit index (CFI), and root mean square error of approximation (RMSEA). The accepted cut-off points for each of these indicators were given in Table 4. CLSC scale consists of eight items (one of them was deleted). Customer value scale consists of three dimensions; *functional* with 5 items, *economic* with three items, and *social* with three items. None of the items were removed as the standardized regression weight for all indicators is higher than 0.3. Sustainable consumerism scale consists of three dimensions; *Care for environmental well-being* with 3 items, *Quality of life* with eight items, and *Care for the future generations* with four items. The results of the CFA were satisfactory, as CMIN/DF is less than 5, RMSEA is less than 0.1, and the other indices are above 0.9. Therefore, the CFA for measurement scales has higher level of fit. Researchers have set Cronbach alpha, and composite reliability (CR) of 0.6 or above (Fornell and Larcker, 1981). As shown in Table 2, the composite reliability of each item for the current study ranges between 0.813 and 0.894, indicating that appropriate internal consistency in all constructs was examined. Previous researches suggested that outer loadings of each item for all constructs should be equal to or greater than 0.40 (Hair et al., 2021). In the current investigation, all of the individual item loadings are above 0.4, except 5 items (V1, V20-V23) that were deleted. Hair et al., 2021 recommends that the AVE be 0.50 or higher to assess the convergent validity of each component. However, values larger than 0.4 are permissible if the CR value is more than 0.6 (Fornell and Larcker, 1981). The AVE for all items has reached the minimal threshold of 0.40, indicating that the constructs utilised in this investigation have appropriate convergent validity (see Table 3).

Table 5: Discriminant validity

	1	2	3	4	5	6	7
1. CLSC							
2. Care for environmental well- being	0.545						
3. Care for the future generations	0.312	0.633					
4. Economic value	0.679	0.594	0.352				
5. Functional value	0.896	0.501	0.352	0.689			
6. Quality of life	0.283	0.875	0.801	0.392	0.327		
7. Social value	0.739	0.425	0.532	0.588	0.806	0.346	

Another approach recommended to ensure validity issues; authors require HTMT (Heterotrait-Monotrait) ratio to test for discriminant validity. Hair et al (2021) proposed that the value of constructs should not exceed 0.9, while Gaskin et al., 2018 stated the threshold of 1. The results in Table 5 illustrate that the maximum value of a construct found 0.896, henceforth the discriminant validity is constructed.

4.3 Descriptive statistics and Multiple correlations

We present some descriptive statistics as well as various correlations between the selected constructs in this section. As indicated in Table 5, these contain the mean (M) and standard deviation (SD). Sustainable consumerism has higher mean (M=3.940) and lower Standard deviation (SD=0.530) compared to both CLSC (M=3.526, SD=0.624) and Customer value (M=3.542, SD=0.563). Skewness levels of -2 to +2 and kurtosis values of -7 to +7 are regarded acceptable for demonstrating normal distribution (Hair et al. 2014; Byrne 2016). Table 6 shows that the Skewness and Kurtosis values for the constructs were within the desired range.

Table 6: Descriptive statistic

Construct	Sym.	M	SD	Skewness	Kurtosis
Functional value	m1	3.545	0.627	-0.599	0.837
Economic value	m2	3.706	0.608	-0.934	1.920
Social value	m3	3.374	0.779	-0.300	-0.092
Care for environmental well- being	y1	3.893	0.615	-0.328	0.244
Quality of life	y2	4.014	0.522	-0.309	-0.110
Care for the future generations	y3	3.913	0.743	-0.293	-0.472
CLSC	X	3.526	0.624	-0.528	0.813
Customer value	M	3.542	0.563	-0.513	1.162
Sustainable consumerism	Y	3.940	0.530	-0.278	-0.115

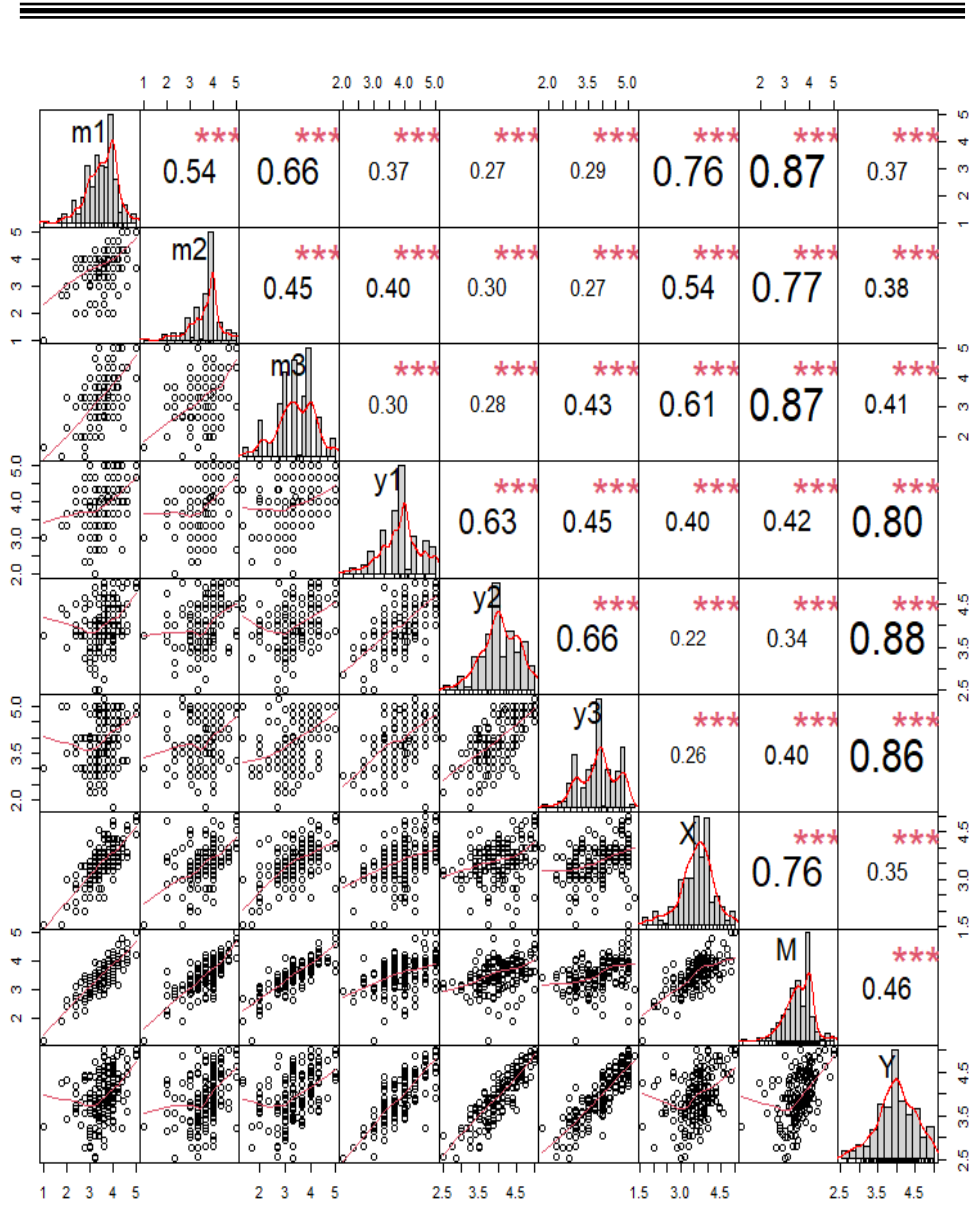


Figure 3: Visualization of scatter plots, distributions and correlations

To establish the degree and direction of the association between the specified constructs, the Pearson product-moment correlation coefficient was performed. Correlation coefficients with three stars (***) were significant at 0.001. On the left side of the graph, scatterplots for each pair of numeric variables are shown. The Pearson correlation is shown on the right with highly statistical significance coefficients. On the diagonal, variable distribution was constructed. It was discovered that the independent variable (and its dimensions) had a positive association with the dependent variable (and its dimensions). Since ($r = 0.35, P < 0.001$), there has been a moderate positive link between CLSC and Sustainable consumerism. Also, there is a moderate positive link between Customer value and Sustainable consumerism ($r = 0.46, P < 0.001$). Moreover, there is a moderate positive link between CLSC and Customer value ($r = 0.76, P < 0.001$).

4.4 The Structural Model

Path coefficients, collinearity diagnostics, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and global goodness of fit criteria are all used to examine the structural model. Prior to analysing the structural model, the collinearity across constructs was investigated (Table 9) using variance inflation factors (VIF), and all values were determined to be less than the threshold of 5 (Hair et al., 2021). For the current investigation, 2000 bootstrapped samples were employed for the sample observations to investigate the importance of path coefficients. The entire estimates of the structural equation model are shown in Figures 3 and 4, together with the customer value mediating variable (see Table 7). As per Table 6, *H1* shows that CLSC has no significant effect on Sustainable consumerism ($\beta = -0.044, t = 0.663, p > 0.05$). All sub-hypotheses concerning this hypothesis were rejected except that CLSC has positive and significant effects on Care for environmental well-being ($\beta = 0.185, t = 2.908, p < 0.05$).

Table 7: Path coefficients and hypothesis testing

H	Path	B	t-value	P-value	95% Bias-Corrected CI		Decision
					LB	UB	
<i>Direct Effect</i>							
H1	CLSC -> Sustainable consumerism	-0.044	0.663	0.507	-0.175	0.088	Not Supported
H1.1	CLSC -> Care for environmental well- being	0.185	2.908	0.004	0.063	0.313	Supported
H1.2	CLSC -> Care for the future generations	-0.089	1.207	0.228	-0.244	0.048	Not Supported
H1.3	CLSC -> Quality of life	-0.085	1.088	0.277	-0.226	0.075	Not Supported
H2	Customer value -> Sustainable consumerism	0.451	8.643	0	0.34	0.549	Supported
H2.1	Customer value -> Care for environmental well- being	0.289	4.587	0	0.153	0.403	Supported
H2.2	Customer value -> Care for the future generations	0.461	7.493	0	0.334	0.577	Supported
H2.3	Customer value -> Quality of life	0.412	7.062	0	0.271	0.508	Supported
H3	CLSC -> Customer value	0.789	42.424	0	0.747	0.822	Supported
<i>Indirect / Mediating Effect</i>							
H4	CLSC -> Customer value -> Sustainable consumerism	0.356	8.204	0	0.276	0.442	Supported
H4.1	CLSC -> Customer value -> Care for environmental well- being	0.228	4.379	0	0.128	0.329	Supported
H4.2	CLSC -> Customer value -> Care for the future generations	0.364	7.272	0	0.26	0.451	Supported
H4.3	CLSC -> Customer value -> Quality of life	0.325	6.727	0	0.221	0.412	Supported

H2 shows significantly positive effects of Customer value on Sustainable consumerism ($\beta = 0.451, t = 8.643, p < 0.05$). Also, Customer value has significant effect on the dimensions of Sustainable consumerism; as for Care for environmental well- being ($\beta = 0.289, t = 4.587, p < 0.05$), Care for the future generations ($\beta = 0.461, t = 7.493, p < 0.05$), and Quality of life ($\beta = 0.412, t = 7.062, p < 0.05$). similarly, H3 shows positive and significant effects of CLSC on Customer value ($\beta = 0.789, t = 42.424, p < 0.05$).

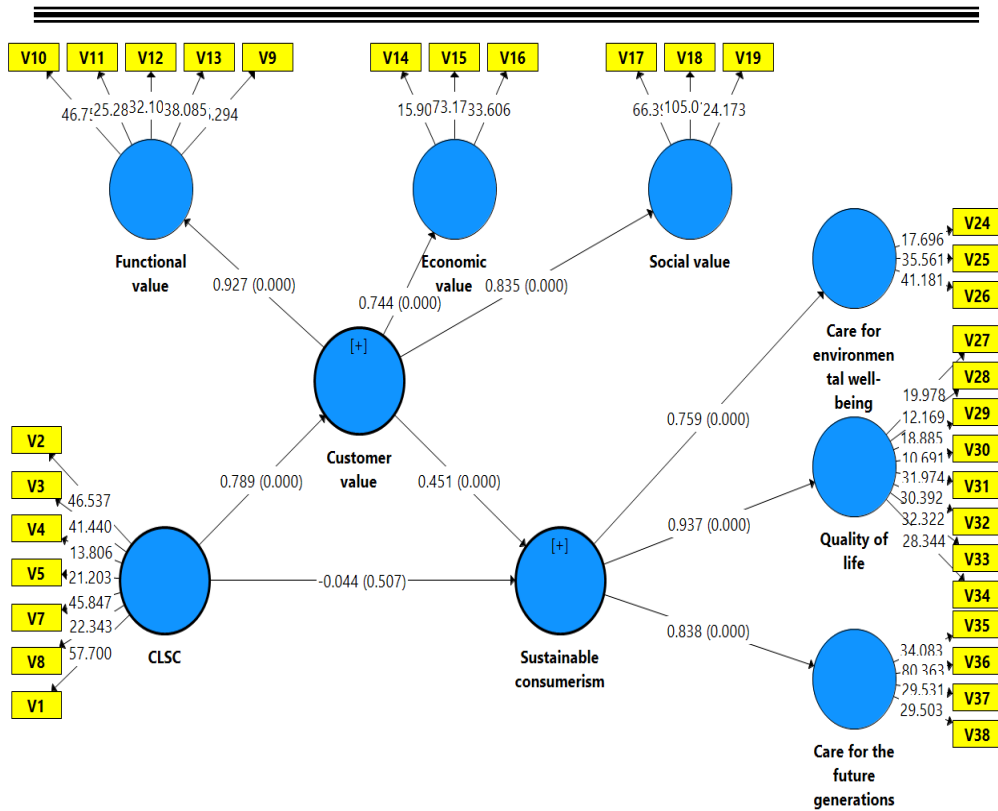


Figure 4: Structural model (Main Hypothesis)

This study also examined the mediating effects of customer value between the relationship of CLSC, and sustainable consumerism. The findings (Table 6, Fig 3) show that *H4*: customer value positively and significantly mediates between the relationship of CLSC, and sustainable consumerism ($\beta = 0.356$, $t = 8.204$, $p < 0.05$). Furthermore: this study examined the three dimensions of sustainable consumerism individually as dependent variables. the findings (Table 7, Fig 5) reveal that *H4.1*: Customer value significantly and positively mediated between the relationship of CLSC and Care for environmental well-being ($\beta = 0.228$, $t = 4.379$, $p < 0.05$). *H4.2*: Customer value significantly and positively mediated between the relationship of CLSC and Care for the future generations ($\beta = 0.364$, $t = 7.272$, $p < 0.05$). *H4.3*: Customer value significantly and positively mediated between the relationship of CLSC and Quality of life ($\beta = 0.325$, $t = 6.727$, $p < 0.05$). According to (Nitzl et al., 2016) if the direct effect is not significant and indirect effect is significant, full mediation has occurred; if both direct and indirect effects are significant, partial mediation has occurred. A summary of mediation analysis findings was given in Table 8.

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Table 8: Summary of mediation analysis

Independent	Mediator	Dependent	Direct Effect	Indirect Effect	Mediation
CLSC	Customer value	Sustainable consumerism	Insignificant	Significant	Full
CLSC	Customer value	Care for environmental well-being	Significant	Significant	Partial
CLSC	Customer value	Care for the future generations	Insignificant	Significant	Full
CLSC	Customer value	Quality of life	Insignificant	Significant	Full

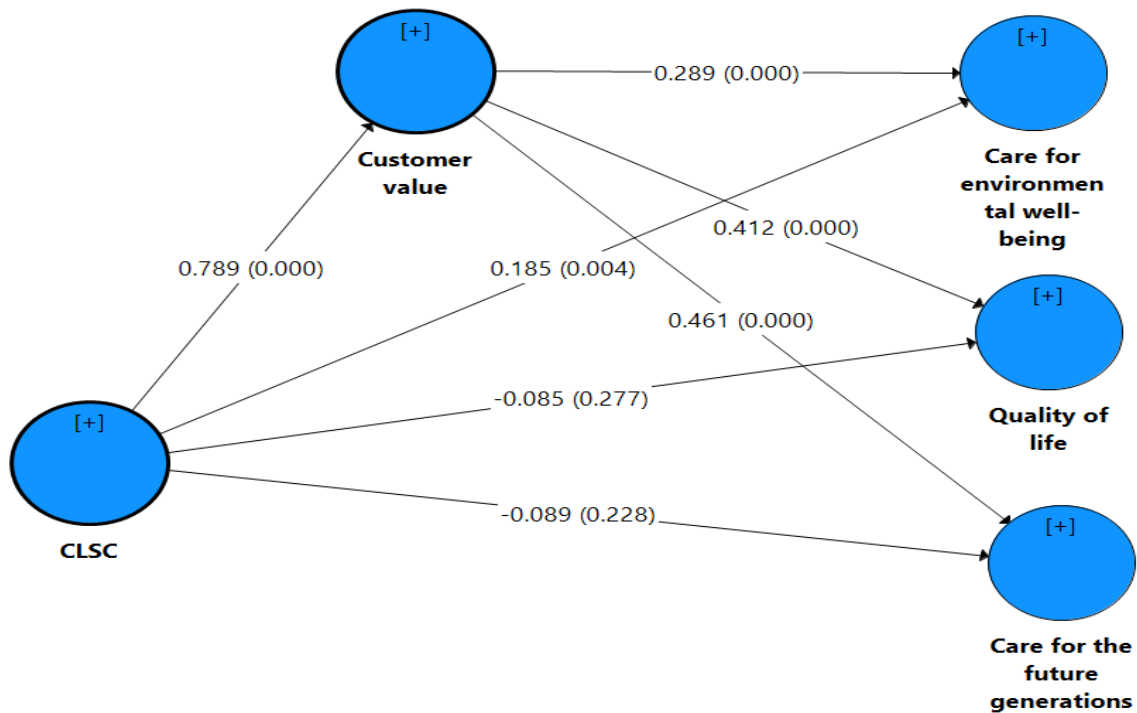


Figure 5: Structural model (Sub-Hypothesis)

The values of F^2 (Effect Size) should be higher than 0.02 (Hair et al., 2021). The current study shows that all the values of F^2 are higher than 0.02, which shows there is an effect (Table 9).

Table 9: Structural model assessment

Path	f-square	VIF
CLSC -> Sustainable consumerism	0.001	2.654
CLSC -> Care for environmental well- being	0.016	2.653
CLSC -> Care for the future generations	0.004	2.653
CLSC -> Quality of life	0.003	2.653
Customer value -> Sustainable consumerism	0.093	2.654
Customer value -> Care for environmental well- being	0.039	2.653
Customer value -> Care for the future generations	0.095	2.653
Customer value -> Quality of life	0.073	2.653
CLSC -> Customer value	1.654	1
Endogenous variable	R Square	Q Square
Customer value	0.623	0.289
Sustainable consumerism	0.174	0.065
Care for environmental well- being	0.202	0.112
Care for the future generations	0.155	0.093
Quality of life	0.122	0.045

Coefficient of determination (R²) also known as *R²* value assessment is calculated using the PLS-SEM structural model. According to the researchers, *R²* indicates the independent variance variable by its predictors. In general, *R²* of 0.10 is considerable (Falk & Miller, 1992). However, in PLS-SEM, the *R²* value of 0.60 is considered as substantial, 0.33 as moderate, and 0.19 as weak (Chin, 1998). In this study, all values were above the threshold of 0.10. In this work, cross-validated redundancy (Q²) was employed to assess the impact of latent variables. A value of Q² larger than zero indicates that the model has predictive relevance (Hair et al., 2021). Table 9 shows the Q² values for the current study, which are greater than zero. As a result, this model has predictive relevance.

6- Conclusion and Discussion:

The concept of sustainable consumption and the execution of closed-loop supply chains are closely connected. Sustainable consumption urges individuals and businesses to adopt more responsible consumption patterns, while closed-loop supply chains offer a framework for businesses to minimize waste and maximize the efficiency of resources. By incorporating sustainable consumption principles into the design and operations of closed-loop supply chains, companies can further improve their environmental performance and contribute to a more sustainable future. For instance, creating products that

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are durable and easy to repair can extend their lifespan and decrease the necessity for new production. The implementation of reverse logistics systems can facilitate the collection and recycling of used products, thereby reducing waste and conserving resources.

In conclusion, environmental sustainability can be achieved by incorporating sustainable consumption and closed-loop supply chains. By embracing sustainable consumption practices and implementing CLSCs, we have the ability to decrease resource consumption, lower waste production, and contribute to the establishment of a more circular and sustainable economy.

Finally, an overall conclusion is shown through (Table 10) which builds the theoretical contribution to the field of CLSC. The table points out the relationship between CLSC and sustainable consumerism. Additionally, it investigated whether the relationships are mediated by customer value, as well as answering the research questions and presenting its objectives.

Table 10: Summary of study conclusion

Study questions	Objectives	Hypotheses	Results
What is the impact of closed-loop supply chain (CLSC) activities on sustainable consumerism	Explain and illustrate the impact of closed-loop supply chain (CLSC) activities on raising sustainable consumerism in Egyptian FMCG market	H1: CLSC -> Sustainable consumerism H1.1: CLSC -> Care for environmental well-being H1.2: CLSC -> Care for the future generations H1.3: CLSC -> Quality of life	Not Supported The result is not consistent with (Bablu, G.K., et al, 2022; Kazemi, N., et al, 2019; Kim, J., et al, 2018; Darbari, J.D., et al, 2019)
What is the impact of closed-loop supply chain (CLSC) activities on customer value	Explain and illustrate the impact of closed-loop supply chain (CLSC) activities on enhancing customer value in Egyptian FMCG market	H3: CLSC -> Customer value	Supported The result consistent with (Ann Suwaree et al., 2020; Hazen, B.T. et al., 2017)
What is the impact of customer value on sustainable consumerism in Egyptian FMCG market?	Explain how can customer value raise sustainable consumerism in Egyptian FMCG market	H2: Customer value -> Sustainable consumerism H2.1: Customer value -> Care for	Supported The result consistent with (Wiesli, TX et al., 2021; Chris Shiel, et al., 2020;

		environmental well-being H2.2: Customer value -> Care for the future generations H2.3: Customer value -> Quality of life	Farzana Quoquab et al., 2019)
Is there a significant mediating effect of customer value on the relationship between using closed- loop supply chain and raising Egyptian customers' sustainable consumerism?	Explain and discuss the mediating role of customer value on the relationship between using closed- loop supply chain and raising Egyptian customers' sustainable consumerism	H4: CLSC -> Customer value -> Sustainable consumerism H4.1: CLSC -> Customer value -> Care for environmental well-being H4.2: CLSC -> Customer value -> Care for the future generations H4.3: CLSC -> Customer value -> Quality of life	Supported There are no studies that have examined the relationship between the study variables combined, and this represents the research gap for this study

7- Study implications:

The paper contributes to theory by further exploring a concept that has surprisingly not been extensively studied in the academic literature. The concept of CLSC is crucial in defining sustainable development, yet it has not been adequately examined as a research concept. The focal point of this study lies in offering a theoretical foundation for investigating the involvement of consumers in Closed-Loop Supply Chains (CLSCs). Our study analyzes how consumers perceive CLSC products and how their acceptance and spread is affected. To advance theory-based research in the field of Closed-Loop Supply Chains (CLSC), a closer understanding of consumer behaviour is essential on the flow of reclaimed products from end-users back to the supply chain (CLSC). Based on the findings of this study, further research will be conducted in this field..

In addition, this study makes a valuable contribution to the existing literature by providing a conceptual framework for the construct of sustainable consumerism. It also suggests a new taxonomy that classifies different behaviors into three dimensions of sustainable consumerism. Furthermore, the study develops specific items for each of these three categories and conducts empirical tests to assess their validity and reliability.

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The output of this research has essential implications for producers and professionals to comprehend consumers when attempting to promote CLSC products. The findings emphasize that certain consumers (those who have a higher level of concern for the future) form a group that is more inclined to buy CLSC products compared to others, which enables marketing communications to be targeted appropriately. On the other hand, some consumers will require more convincing strategies.

Furthermore, it may also be beneficial for marketing professionals to utilize this scale to gain a better understanding of the sustainable consumption habits of consumers who are socially, ethically, and environmentally aware. Based on this scale, individuals can discover whether they are aware of their responsibility to live a quality life, to protect the environment, and to ensure future generations' sustainability. The result is that policymakers and marketers can improve consumer awareness of these environmentally friendly practices by developing new strategies, policies, and educational programs.

The results of this study emphasize the crucial importance of consumers in transitioning from traditional consumption to SCB. Consequently, it is imperative for policymakers to assess the degree to which consumers are implementing these behaviors. In response, the government can enact policies and regulations that encourage the adoption of environmentally friendly practices, such as reducing fees, tariffs, and taxes.

8- Recommendation:

The researchers developed an action plan that includes a set of recommendations for each of the variables of the study, based on scientific literature and a field study of the Egyptian market, as well as the nature and culture of the Egyptian consumer. These recommendations help marketers in developing an integrated strategy to encourage sustainable consumerism by relying on closed-loop supply chain practices and customer value. The following (Table 11) shows the study action plan:

Table 11: recommendation action plan

Area of recommendations	Recommendations	How to implement (Implementation Mechanisms)
Closed-loop supply chain	Identify and Map Reverse Supply Chain	Start by recognizing the reverse supply chain, which encompasses the gathering, categorizing, and handling of products and materials that have been returned. Chart out the complete reverse supply chain to comprehend the movement of products and materials from the moment they are returned to their final destination.
	Evaluate Product Design for Reusability and Recyclability	Consider various factors in product design that promote the ability to reuse and recycle. These factors may involve the utilization of standardized components, the creation of designs that can be easily taken apart, and the selection of materials that have high recyclability.
	Establish Collection and Sorting Processes	Implementing effective collection and sorting procedures is crucial in order to guarantee the appropriate management of returned goods and materials. This could potentially entail establishing designated collection points, collaborating with third-party logistics companies, or utilizing advanced technological solutions for tracking and tracing returned items.

	Invest in Technology and Data Management	Implementing technology solutions is crucial for enabling efficient tracking, tracing, and management of products and materials within the closed-loop supply chain. It is imperative to introduce data management systems that can capture and analyse pertinent information to drive continuous improvement and facilitate decision-making.
Customer value	CLSC firms should maintain customer value	Preserve the current consumer value and experiential marketing strategies, which should be updated to the newest application features. In order to increase customer satisfaction, innovate, provide customers enticing promotions, and enhance service systems.
	Special awards programmes	The marketing heads give special awards to customers who have long used or remanufacturing and recycled products
	Improve brand reputation of CLSC companies among rivals	Bringing new ideas to product services and quality. Furthermore, the company must concentrate on enhancing customer trust and brand loyalty in order to build high-quality brand relationships.
	Exceed customer expectations	When a business surpasses customer expectations by delivering high-quality products or services, true value is realized. Enhancing the functionality features, and reliability of your offerings is essential in order to attain this level of quality. Additionally,

		it is equally crucial to constantly innovate based on customer feedback in order to exceed their expectations.
	Build and manage your brand reputation	<ul style="list-style-type: none"> • Develop a strong company culture. • Actively seek out and address reviews. • Actively listen to consumer opinion. • Establish a digital presence. • Develop a brand style guide. • Set up a public relations department or procedure.
	Add value throughout the entire customer journey	To provide customer value, it is crucial for your business to guarantee a positive encounter at every interaction point. The essential factor is to provide exceptional assistance and service throughout the entire journey of the customer. In order to accomplish this objective, a skilled customer service team that is understanding and prompt in meeting customer requirements is essential.
Sustainable	Raise Awareness and Educate Consumers:	Promote greater understanding regarding the significance of adopting sustainable consumption and its effects on the environment. Provide knowledge to individuals about sustainable behaviours, such as minimizing waste, preserving resources, and opting for environmentally friendly products.
	Incentivize Sustainable Choices	Motivate individuals to embrace environmentally friendly alternatives by offering them incentives such as reduced prices, bonuses, or tax advantages

consumerism		for buying eco-conscious items or embracing sustainable practices.
	Advocate for Policy Changes	Promote policy modifications that endorse sustainable consumption, such as regulations on product durability, reparability, and waste reduction. Encourage governments to provide incentives for sustainable businesses and promote sustainable practices through legislation. To promote sustainable prosperity, the government should also ensure that fair trade regulations are enacted.
	Invest in social influence	Young people were motivated by social influences and encouraged to adopt responsible consumption habits. Many participants expressed an interest in trying specific products after receiving recommendations from trusted friends or online reviews. Consequently, communication is an important marketing tool to reach out to this generation due to its influence and enduring forms.

10- Limitations and Future research:

The study does however have a number of limitations. First of all, no interviews were conducted with any of these companies. Therefore, this has led to an absence of more in-depth data information about the way these FMCG make decisions and tackle issues along this journey.

In addition, this study lacks financial findings about the CLSC transition. On the one hand, this study clearly elaborates on the benefits of a CLCS transition for businesses, the society, and our environment. But on the other hand, the high transition costs, such as R&D investments, are rarely mentioned within the literature and the empirical findings. Also, the research was carried out in Egypt, focusing on one sector of the FMCG industry, resulting in limited geographical and sectoral coverage.

In the end, the external validity of this research is stated as the most important limitation, because it has the most influence on the conclusions and implications. Since it is difficult to generalize the findings of these companies to the whole FMCG industry. In all likelihood, other companies in the FMCG industry will lag behind the developments of these companies within this sample. In that case, it is not accurate to simply generalize findings of this study towards those companies outside this research context.

To overcome the mentioned limitations, more-in depth research can be done in the future, especially when taking into account the closed-loop activities that are present in various sectors and regions; there is an expansion in the scope of geographical coverage and the sample size. Moreover, the inclusion of additional comparative studies among regions within the same industry offers an even more comprehensive understanding of the obstacles, discrepancies, and potential remedies.

Moreover, it is imperative for future studies to analyze other variables that may impact the perceived value and intention to purchase among consumers. These variables could include elements related to the theory of planned behavior, which would contribute to the ongoing development of the emerging mid-range theory. Also, AR and VR can help companies to reduce risks related to the demand for final CLSC products and satisfy consumers since they can be used to show the consumers a product and give them the opportunity to interact with it. Lastly, it is necessary to test external factors like market disparities, economic distinctions, and even cultural variations within the remanufacturing industry. This will ascertain the applicability of the research model to alternative markets or countries.

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أثر استخدام سلسلة التوريد ذات الحلقة المغلقة على رفع النزعة الاستهلاكية المستدامة للعملاء المصريين في صناعة السلع الاستهلاكية سريعة الحركة : اختبار الدور الوسيط لقيمة العميل

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الملخص:

الغرض الرئيسي من هذا المقال هو توضيح تأثير سلسلة التوريد ذات الحلقة المغلقة (CLSC) على رفع النزعة الاستهلاكية المستدامة للعملاء المصريين من خلال دراسة التأثير الوسيط لقيمة العميل في العلاقة بين سلسلة التوريد ذات الحلقة المغلقة (CLSC) ورفع النزعة الاستهلاكية المستدامة للعملاء المصريين في صناعة السلع الاستهلاكية سريعة الحركة. وذلك من خلال استبيان لعينة مكونة من ٥٠٠ مستهلك مصري. حيث تم اختيار المشاركين بناءً على شرائهم للمنتجات الاستهلاكية سريعة الحركة، وقد أظهرت النتائج ان سلسلة التوريد ذات الحلقة المغلقة (CLSC) ليس لها تأثير معنوي مباشر على النزعة الاستهلاكية المستدامة. من ناحية أخرى، أظهرت النتائج الإحصائية وجود تأثير إيجابي معنوي لقيمة العميل على النزعة الاستهلاكية المستدامة للعملاء. بالإضافة إلى ذلك، فإن قيمة العميل لها تأثير معنوي إيجابي على أبعاد النزعة الاستهلاكية المستدامة، كما اوضحت الدراسة أن هناك تأثير معنوي إيجابي لسلسلة التوريد ذات الحلقة المغلقة (CLSC) على قيمة العميل. وأخيرا، فإن قيمة العميل تتوسط بشكل إيجابي العلاقة بين سلسلة التوريد ذات الحلقة المغلقة (CLSC) والنزعة الاستهلاكية المستدامة وهذا يعني ان هناك تأثير معنوي إيجابي غير مباشر لسلسلة التوريد ذات الحلقة المغلقة (CLSC) على رفع النزعة الاستهلاكية المستدامة للعملاء المصريين في سوق السلع الاستهلاكية سريعة الحركة.

الكلمات المفتاحية : سلسلة التوريد ذات الحلقة المغلقة، النزعة الاستهلاكية المستدامة، قيمة العميل، أسواق السلع الاستهلاكية سريعة الحركة، المستهلكين المصريين.