

Analysing the Factors influencing the Sustainable Consumption Behaviour of Young College Students of India

Dr. Sharda Kumari

Assistant Professor, Management Department
L.N. Mishra College of Business Management, Muzaffarpur, Bihar, India
Email Id: shardakumari5680@gmail.com

Dr. Vipin Kumar

Assistant Professor, Management Department
L.N. Mishra College of Business Management, Muzaffarpur, Bihar, India
Email Id: vipinkrsmp@gmail.com

Abstract: This study aims to discern the primary determinants of sustainable consumption behaviour within the demographic of young college students in India. Employing a quantitative research approach, data were gathered from 362 participants through a structured questionnaire. The investigation focused on measuring both the respondents' sustainable consumption behaviour and their perceptions regarding the factors that shape this behaviour. The results unveiled several significant predictors of sustainable consumption behaviour among young college students in India. Functional value emerged as a critical driver of SCB, alongside social, emotional, and epistemic values. Environmental concern, perceived consumer effectiveness, and objective knowledge also significantly influenced SCB. These findings underscore the importance of understanding and leveraging various factors to promote sustainable consumption practices among young consumers in India. While the study provides valuable insights, limitations such as sample representativeness, methodological constraints, and reliance on self-reported measures are acknowledged. Future research avenues include exploring SCB across diverse demographics, employing qualitative methods for deeper insights, and developing effective interventions tailored to cultural contexts in India. This research contributes to the discourse on SCB, offering implications for policymakers, marketers, and educators striving for sustainability.

Keywords: Sustainable consumption behaviour, young college students, Consumption value, Environment knowledge and India.

Introduction

Environmental problems are becoming more widely known as a result of the myriad difficulties the environment is currently facing, including overconsumption and pollutants. Environmental harm is generally attributed to human consumption, particularly in developing nations like India where an expanding economy encourages excessive consumption. Indian homes and residents play a critical role in

resolving the nation's environmental problems as the main end users. Sustainable consumption has been suggested as a tactic to address environmental issues with consumer involvement.

Consumers play a key role in accomplishing sustainability as they are responsible for purchasing and consumption of goods and

services. However, they may require assistance in adopting SCB. This study sought to identify the elements impacting the sustainable purchasing patterns of young college students in India, who are seen as the future of the nation. The study identified key factors influencing SCB through a review of the body of literature, including consumption values (functional, social, emotional, epistemic, and conditional values), environmental concern, perceived consumer effectiveness, and environmental knowledge (both objective and subjective knowledge) (Gifford & Nilsson 2014; Yadav & Pathak 2017; Kim et al. 2018). For hypotheses testing and validation of model statistically tools like Confirmatory factor analysis (CFA) and Structural equation modelling (SEM) were used. The results provide valuable insights into the sustainable consumption behaviour of young college students in India, demonstrating their awareness and responsiveness towards environmental conservation, which is a critical consideration for the future of the Indian market.

Literature Review

Sustainable Consumption Behaviour (SCB): SCB refers to the conscious and responsible consumer choices made by individuals that promote sustainability and reduce negative environmental and social impacts (Biswas & Roy, 2015). SCB involves making environmentally conscious decisions when purchasing products and services, such as choosing eco-friendly or sustainable products, reducing waste, and minimizing energy consumption (Dhandra, 2019; Curvelo et al., 2019). The concept of SCB has been more well-known in recent years as consumers become more aware of their impact on the atmosphere and society. Research has indicated that the formation of social and personal determinants has a significant role. Personal values, beliefs, attitudes, and behaviours are examples of individual factors, whereas peer pressure, cultural norms, and society conventions are examples of societal variables. It addresses a range of problems, including reducing waste, developing resource efficiency, improving quality of life, and meeting consumer

requests in an eco-friendly manner (Heo & Muralidharan, 2019; Sheoran & Kumar, 2022).

Consumption Values (CV): Consumption values (CV) are crucial in comprehending consumer behaviour. These values represent how much a consumer's needs are fulfilled and at what extent consumer are satisfied with the product utility. It also indicates the overall parameters on which consumer's evaluate the product's net utility after considering its pros and cons. According to Park et al. (2022), consumption values can assist in explaining the underlying motivations behind purchasing decisions. Consumers' decision-making values or motivations are generally classified into five categories i.e., functional, social, emotional, epistemic, and conditional value (Shin et al., 2021). Functional value is deemed crucial among consumption values as it pertains to how effectively a product or service meets a consumer's practical requirements. For instance, a vehicle with excellent gas mileage not only fulfils the need for transportation but also aids in saving money on fuel costs (Zeithaml, 1988). Social value refers to the benefits a consumer perceives from associating a product or service with a particular social group, which may include aspects such as social status and symbolic meaning (Prasad & Jha, 2014). Emotional value pertains to how well a product or service fulfils a consumer's emotional needs, such as offering comfort or pleasure (Cohen & Areni, 1991). Epistemic value is concerned with satisfying a consumer's desire for knowledge or intellectual engagement (Holbrook & Hirschman, 1982). Lastly, conditional value describes how a product or service addresses a consumer's specific situational requirements, such as affordability or convenience (Zeithaml, 1988). Hence, consumption values play a critical role in shaping consumer behaviour. By understanding the different values that motivate consumers, marketers can develop more effective product offerings and marketing strategies.

Functional Value (FV)—FV is a key concept in consumer behaviour that refers to the degree to which a product or service satisfies a consumer's practical needs (Zeithaml, 1988). In other words,

functional value is the utility that a consumer derives from a product or service based on its ability to fulfil specific needs or solve particular problems. Consumers are likely to place high importance on functional value when evaluating products or services for purchase, as they seek to obtain the maximum possible benefit from their expenditure. Several studies have explored the significance of functional value in consumer decision-making. For example, a study by Yoo and Lee (2009) found that consumers in Korea placed greater emphasis on functional value than on other consumption values such as emotional or symbolic value when purchasing mobile phones. Another study by Kim et al. (2018) found that functional value was the primary determinant of purchase intention for electric bicycles among Korean consumers. FV can be measured in various ways, including through surveys, focus groups, and conjoint analysis (Zeithaml, 1988). Companies can use this information to design products and services that meet the practical needs of consumers, thereby increasing the likelihood of purchase and satisfaction. Therefore, Understanding the significance of functional value is integral in consumer decision-making, given its direct correlation with the practical utility provided by a product or service. Consequently, by comprehending the importance of functional value, marketers can develop offerings tailored to fulfil consumers' practical needs, thereby enhancing the probability of purchase and satisfaction. Based on the preceding discussion, the following hypothesis is posited:

H1: SCB is positively influenced by FV

Social Value (SV)-SV constitutes a fundamental aspect within consumer behaviour research, referring to the perceived benefit a consumer derives from linking a product or service with a specific social group. Prasad and Jha (2014) define social value as "the perceived utility gained from an alternative's connection with one or more particular social groups." Consumers frequently base their purchasing decisions on their social standing, with social or symbolic value being pivotal in expressing themselves within society.

Studies highlight the significant role of social value in understanding consumer behaviour. For instance, research by Tabernero et al. (2020) indicates that individuals valuing social status are inclined to opt for products with high signalling potential, like eco-friendly items, to showcase their environmental concern. Similarly, Ali et al. (2016) discovered that consumers esteeming social status are more prone to conspicuous consumption and choose products or services based on their potential to enhance their social image. Moreover, social value serves as a basis for consumer segmentation and targeted marketing strategies. Kumar et al. (2018) revealed that consumers placing a premium on social identity are susceptible to social media marketing campaigns emphasizing the social advantages of a product or service. Thus, social value is an important concept in consumer behaviour research. Consumers often make purchasing decisions based on their social position, and social or symbolic value is critical for them to express themselves in society. Understanding social value can help companies tailor their marketing efforts and product offerings to different consumer segments. Thus, from above discussion following hypothesis is proposed:

H2: SCB is positively influenced by SVTop of Form

Emotional Value (EV)-EV is an important aspect of consumer behaviour that refers to the subjective feelings that consumers experience when using or consuming a product or service (Batra & Ahtola, 1991). Emotional value is distinct from functional value, which is based on a product's ability to fulfil practical needs. Consumers often seek products that evoke positive emotions, like happiness, satisfaction, and avoid products that evoke negative emotions, like anger, frustration, and disappointment. Several studies have investigated the importance of emotional value in consumer decision-making. For example, a study by Richins (1997) found that emotional value was a stronger predictor of consumer satisfaction than functional value for products

such as clothing and jewellery. Another study by Rust and Oliver (1994) found that emotional value was an important determinant of customer loyalty in the banking industry. Emotional value can be difficult to measure, as it is subjective and varies across individuals. However, some research suggests that emotional value can be assessed through techniques such as the use of emotional response scales, interviews, and focus groups (Batra & Ahtola, 1991). Thus, emotional value is an essential aspect of consumer decision-making, as it relates to the subjective feelings that consumers experience when using or consuming a product or service. By understanding the importance of emotional value, marketers can design products and services that evoke positive emotions and increase the likelihood of satisfaction and loyalty among consumers. In the light of above discussion following hypothesis is proposed:

H3: SCB is positively influenced by EV

Epistemic Value (EPV)-EPV refer to the intrinsic worth that consumers place on the knowledge they gain from using a product or service (Hirschman, 1986). Epistemic values are distinct from functional values, which relate to a product's ability to fulfill practical needs. Consumers often seek products that provide knowledge, learning, and exploration opportunities and avoid products that offer little or no epistemic value. Several studies have investigated the importance of epistemic value in consumer decision-making. For example, a study by Holbrook and Hirschman (1982) found that epistemic value was a significant predictor of consumer satisfaction for products such as books and music. Another study by Batra and Ahtola (1991) found that epistemic value was an important determinant of consumer attitudes towards a product. Epistemic value can be difficult to measure, as it is subjective and varies across individuals. However, some research suggests that epistemic value can be assessed through techniques such as the use of semantic differential scales, interviews, and surveys (Hirschman, 1986). Thus, epistemic value is a key aspect of consumer's decision-making, as it relates to the intrinsic worth that consumers place

on the knowledge, they gain from using a product or service. By understanding the importance of epistemic value, marketers can design products and services that provide learning and exploration opportunities, and increase the likelihood of satisfaction and loyalty among consumers. In the light of aforesaid literature, the following hypothesis is proposed:

H4: SCB is positively influenced by EPV

Conditional Value (CV)-CV refers to the worth that a consumer places on a product or service based on its context or situation of use (Wu & Liang, 2016). For instance, a product may have high conditional value when it is used in a specific environment or occasion, but may lose value in other contexts. Consumers may evaluate products based on the situations in which they are most likely to use them and may consider factors such as convenience, ease of use, and fit for purpose. Several studies have investigated the role of conditional value in consumer decision-making. For example, a study by Wu and Liang (2016) found that consumers' perceptions of conditional value influenced their purchase intentions for mobile applications. Another study by Lin and Wang (2012) found that the perceived conditional value of online shopping influenced consumers' trust and loyalty towards online retailers. Conditional value can be difficult to measure, as it is highly context-dependent and can vary across situations and individuals. However, some research suggests that conditional value can be assessed through techniques such as conjoint analysis, surveys, and user testing (Wu & Liang, 2016; Watanabe et al., 2020). Therefore, recognizing the significance of conditional value, it becomes a crucial element in consumer decision-making as it considers the worth that consumers attach to a product or service based on the situation or context of use. This understanding can help marketers in designing products and services that are better suited for specific contexts or occasions, which in turn can lead to higher levels of satisfaction and loyalty among consumers. Based on the above reasoning, this study presents the following hypothesis:

H5: SCB is positively influenced by CV

Environmental Concern (EC)-EC refers to the level of care and consideration that an individual has towards the natural environment and its well-being (Stern et al., 1999). In recent years, environmental concern has become an increasingly important factor in consumer decision-making, particularly in the context of sustainable consumption behaviour. Existing research has suggested that individuals who demonstrate a strong sense of environmental concern are more inclined to adopt sustainable consumption behaviour, including activities such as purchasing eco-friendly products, reducing energy usage, and recycling (Barr et al., 2005; Thøgersen, 2004). Moreover, environmental concern has been identified as a predictor of pro-environmental attitudes, intentions, and behaviours, as highlighted in studies such as Schultz et al. (2005). The factors that influence environmental concern are multifaceted and can include personal beliefs, values, and attitudes, as well as external factors such as media coverage of environmental issues (Gifford & Nilsson, 2014). Research has also identified a number of demographic and socioeconomic factors that may influence levels of environmental concern, including age, gender, education, and income (Dunlap & York, 2008). Hence, environmental concern is a key factor in SCB and plays a key role in shaping consumer's consumption decision. By understanding the factors that influence environmental concern, marketers and policymakers can design strategies and interventions to promote sustainable behaviour and address environmental issues. On the basis of above illustration, the following hypothesis is proposed:

H6: SCB is positively influenced by EC

Perceived Consumer Effectiveness (PCE)-PCE refers to an individual's confidence in their capacity to contribute to sustainable consumption practices through their actions. (Thøgersen, 2012; Nguyen & Pervan, 2020). It is an essential construct in sustainable consumption research as it can predict consumers' behaviour towards eco-friendly

products and services. The concept of PCE highlights that consumers have the potential to positively influence the environment and society through their purchasing choices and consumption habits. This idea is fuelled by consumers' growing sense of responsibility and awareness of the environmental impact of their decisions (Carrington et al., 2010). Several studies have shown a positive relationship between PCE and sustainable consumption behaviour. For example, research has found that consumers who have higher levels of PCE are more likely to engage in eco-friendly behaviour, such as recycling, energy conservation, and buying environmentally friendly products (Thøgersen, 2012; De Pelsmacker et al., 2005). Furthermore, individuals who perceive themselves as effective in making a positive change are more likely to have a higher intention to adopt sustainable behaviours and to take a more proactive approach to sustainable consumption (Huffman et al., 2014). Additionally, PCE has been identified as an important factor in the context of sustainable product labelling. Consumers who believe that their behaviour can make a difference in the environment are more likely to use eco-labels when making purchasing decisions (Thøgersen & Ölander, 2002). Research also suggests that eco-labels can enhance consumers' PCE, which can lead to increased adoption of eco-friendly products and services (Nyborg et al., 2016). Thus, PCE is a crucial construct in sustainable consumption research as it influences consumers' attitudes and behaviour towards eco-friendly products and services. It is important for policymakers and marketers to understand the role of PCE in promoting sustainable consumption and to develop effective strategies to enhance consumers' perceived effectiveness in contributing to sustainability. Thus, modifying this variable may result in alterations to behaviour in many contexts. The above arguments following hypothesis is proposed:

H7: SCB is positively influenced by PCE

Environmental Knowledge (EK)-EK is an important factor that influences sustainable consumption behaviour among individuals.

Environmental knowledge refers to the degree to which individuals understand environmental issues and their impact on the natural environment (Nigbur et al., 2010). It is a crucial element in sustainable consumption because individuals' knowledge about environmental issues affects their perception and behaviour towards the environment. Research has demonstrated that environmental knowledge has a significant impact on SCB of individuals. For example, Kautish et al. (2019) discovered in a study that environmental knowledge has a significant positive relation with SCB of Indian consumers. Similarly, Chen and Chang (2013) found in a study that environmental knowledge has a positive impact on green purchasing behaviour among Taiwanese consumers. Furthermore, environmental education can play a vital role in enhancing environmental knowledge among individuals and promoting SCB. A study by Luchs and Mooradian (2012) found that environmental education programs positively influenced environmental knowledge and SCB among young adults in the United

States. Environmental awareness is therefore seen to be one predictor of sustainable purchase behaviour. This study aims to find out whether variations in environmental awareness will also result in variations in sustainable consumption practises. To examine the impact of environmental knowledge on SCB, this study will investigate both objective knowledge and subjective knowledge. Consequently, the following hypotheses are proposed:

H8a: SBC is positively influenced by Subjective knowledge

H8b: SBC is positively influenced by Objective knowledge

Building on prior research and the hypotheses formulated earlier, this study highlights nine significant factors that serve as indicators of sustainable consumption behaviour among young college students in India. These variables include FV, SV, EV, EPV, CV, EC, PCE, Subjective knowledge, and Objective knowledge. The proposed research model for this study is presented in Figure 1.

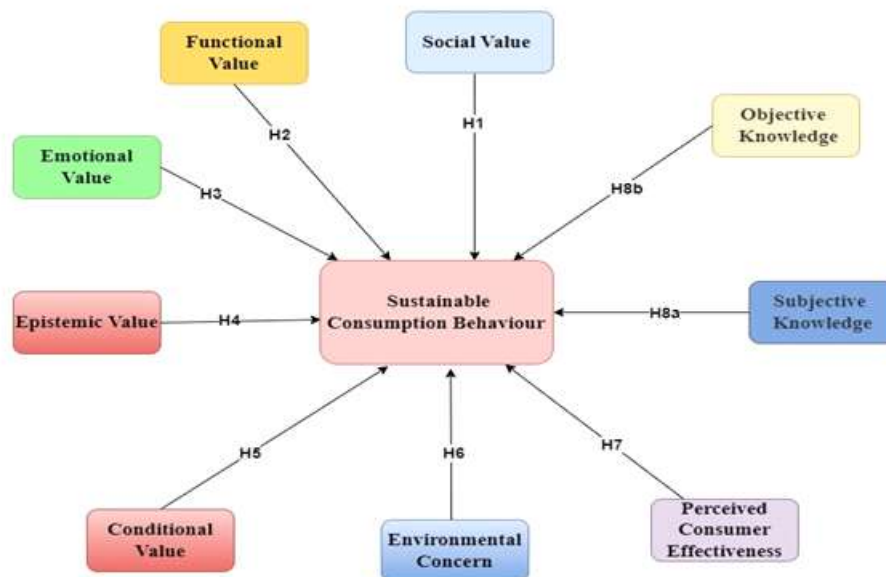


Figure 1: Conceptual Research Framework

Research Gap

Despite the considerable amount of research on sustainable consumption behaviour (SCB) and its factors, several gaps remain unfulfilled. There is a lack of comprehensive integration of various consumption values (CV) when explaining SCB, with most studies focusing on individual factors rather than examining how these values collectively influence SCB. Additionally, the interaction between environmental concern (EC), perceived consumer effectiveness (PCE), and consumption values is not well explored. Furthermore, research on both subjective and objective environmental knowledge (EK) and their impacts on SCB is limited. Finally, the existing literature on SCB is often geographically and culturally specific, which hinders the generalizability of findings. Therefore, a more holistic approach that considers multiple determinants is needed to gain a nuanced understanding of SCB.

Aims and Objectives

Essentially, the main purpose of this research is to develop a holistic understanding of factors that affect sustainable consumption by investigating the role played by various consumer values, environmental concern, perceived consumer effectiveness and environmental knowledge.

Objectives

- To measure the effect of functional value (FV) on sustainable consumption behaviour (SCB).
- To examine the influence of social value (SV) on SCB.
- To analyse the role of emotional value (EV) in shaping SCB.
- To gauge the contribution of epistemic value (EPV) to SCB.
- To investigate the effect of conditional value (CV) on SCB.
- To examine the influence of environmental concern (EC) on SCB.

- To evaluate the impact of perceived consumer effectiveness (PCE) on SCB.
- To differentiate between the effects of subjective and objective environmental knowledge on SCB.

Research Methodology

This research employs a quantitative approach using a structured questionnaire to collect data on sustainable consumption behaviour (SCB) among young college students in India. The following subsections provide details regarding the sampling, instrument development, and validation procedures to ensure methodological rigor.

Sample Size Determination

The sample size for this study consists of 362 valid responses obtained from young college students across five major cities in India: Patna, Pune, Kolkata, Delhi, and Mumbai. The sample size was determined based on guidelines provided by previous methodological studies. As per Hair et al. (2006), a sample size of minimum 300 is considered adequate for employing EFA and SEM.

Additionally, the ratio of participants to the number of items in the questionnaire also guided the sample size determination. With 39 items across several constructs (e.g., Functional Value, Social Value, Emotional Value, Environmental Concern), the final sample size exceeds the recommended minimum ratio of 5 to 10 respondents per item, providing a solid basis for both EFA and SEM analyses (Hair et al., 2010). This sample size ensures both the stability of the factor solution and the power of the structural equation model.

Instrument Development and Validation

The questionnaire employed in this study was designed by adapting validated scales from established research on sustainable consumption behaviour and related constructs. It comprised two sections: the first covered demographic information, while the second included 39 items measuring key constructs such as FV, SV, EV, EPV, CV, EC, PCE, and EK. A 5-point Likert scale was

used to capture responses, ranging from 1 (strongly disagree) to 5 (strongly agree), as shown in Table 1.

To ensure content validity, the initial questionnaire was reviewed by a panel of five experts specializing in consumer behaviour and sustainability. Their feedback was incorporated

to improve the wording and ensure the questions were both clear and contextually appropriate. Additionally, a pilot test was conducted with 30 participants to evaluate the clarity and reliability of the items. Based on the feedback from the pilot, minor adjustments were made to further refine the questionnaire.

Table 1: Constructs, Measuring Items in Questionnaire

Constructs	Measuring scale items
Functional Value (FV)	1. This product meets my practical needs. 2. This product fulfils its intended purpose effectively. 3. This product is reliable and durable. 4. This product offers good value for the money.
Social Value (SV)	1. This product enhances my social status or image. 2. This product allows me to express my identity or values. 3. This product is associated with positive social connections or relationships. 4. This product aligns with my social or cultural beliefs
Emotional Value (EV)	1. This product/service brings me joy, happiness, or satisfaction. 2. This product/service evokes positive emotions when I use it. 3. This product/service enhances my overall well-being. 4. This product/service makes me feel more connected to others.
Epistemic Value (EPV)	1. This product provides me with new knowledge or information. 2. This product stimulates my curiosity or intellectual interests. 3. This product helps me learn or gain new skills. 4. This product challenges me to think differently or critically.
Conditional Value (CV)	1. This product meets my specific needs or requirements. 2. This product is adaptable to different situations or contexts. 3. This product helps me overcome constraints or limitations. 4. This product is flexible and can be customized to suit my preferences.
Environmental Concern (EC)	1. I actively consider the environmental impact of my consumption choices. 2. I prioritize environmentally friendly products over others. 3. I am willing to pay more for products/services that are environmentally sustainable. 4. I take actions to reduce my ecological footprint in my consumption habits.
Perceived Consumer Effectiveness (PCE)	1. I believe my individual choices can make a positive difference in promoting sustainability. 2. I feel empowered to contribute to sustainable consumption practices. 3. I am confident in my ability to adopt sustainable behaviours. 4. I think my actions can influence others to adopt sustainable practices.

Objective Knowledge (OK)	1. To what extent does your awareness of the environmental impact of different products influence your purchasing decisions? 2. How likely are you to seek out information about a product's environmental footprint before making a purchase? 3. How confident do you feel in your ability to make informed choices regarding sustainable consumption based on your objective knowledge?
Subjective Knowledge (OK)	1. To what extent does your personal understanding and beliefs about the environment shape your decision to adopt sustainable consumption behaviours? 2. How likely are you to rely on your intuition or gut feeling when making sustainable consumption choices? 3. How confident do you feel in your subjective knowledge when it comes to making sustainable consumption decisions? 4. How often do you trust your own judgment and beliefs when it comes to sustainable consumption practices?
Sustainable Consumption Behaviour (SCB)	1. To what extent do you prioritize purchasing products that are environmentally friendly? 2. How likely are you to reduce your energy consumption to minimize your ecological footprint? 3. How willing are you to pay a premium for sustainably produced or eco-friendly products? 4. How often do you engage in behaviours such as recycling, composting, or reducing waste?

Participant's description

The research sample was composed of 57.19% male respondents and 42.81% female respondents. In terms of age distribution, 47.24% of participants were between 18-25 years old, 33.43% were in the 25-35 age range, 17.40% fell into the 35-45 age group, and 1.93% were 45 years

and older. Educational qualifications of the respondents were categorized into three groups: Graduate, Post Graduate, and Others. A total of 54.14% held a Graduation degree, 31.77% had Post Graduate qualifications and 14.09% had other types of qualifications. The demographic profiles of the respondents are presented in Table 2.

Table 2: Respondents' Demographic Characteristics

Variables	Respondents' Demographic Characteristics	Frequency	(%)
Gender	Male	207	57.19
	Female	155	42.81
Age	18-25	171	47.24
	25-35	121	33.43
	35-45	63	17.40
	45 and above	7	1.93
Education	Graduate	196	54.14
	Post-graduate	115	31.77
	Others	51	14.09

Source: SPSS output

Data Analysis

Total 374 online and offline responses were collected. After Preliminary data analysis for missing data inspection and outliers only 362 valid responses were considered for further analysis. To examine the univariate outliers all the scores for a variable required to be compared to standard Z scores. If any response exceeds the threshold limit of one, then that response must be removed to satisfy the norms of outliers and normality (Vander Meer et al., 2010). To examine multivariate normality assessment Skewness and Kurtosis were computed. All the estimates for skewness and kurtosis were less than three and ten respectively. Thus, it satisfies the criteria of normality (Kline, 2011). Subsequently, the data were analysed by using different software packages like IBM SPSS V.21 and AMOS V.26 for conducting EFA (Exploratory Factor Analysis), SEM and CFA respectively, these methods help in evaluating the structural relationship between the estimated variables and latent constructs (Kaiser, 1974; Ho, 2006).

Results

Exploratory Factor Analysis (EFA) with varimax rotation was utilized to determine factor retention and elimination based on the Kaiser Normalization criterion. Kaiser-Meyer-Olkin (KMO) served to assess sample adequacy, while Bartlett's Test ensured construct validity, indicating appropriateness of the data for EFA. For EFA, Bartlett's Test of Sphericity should yield a significance level below .05. The obtained KMO value of 0.801 (refer to Table 3) surpassed the minimum threshold of 0.7, indicating satisfactory sample adequacy. Similarly, Bartlett's Test of Sphericity yielded a significance level of $p < 0.05$

(Kaiser and Rice, 1974), supporting construct validity. Consequently, ten factors were selected for further analysis, with all variables exhibiting factor loadings exceeding 0.8 (refer to Table 4).

Table 4 presents the Rotated Component Matrix derived from an Exploratory Factor Analysis (EFA), utilizing Principal Component Analysis (PCA) with Varimax rotation. The analysis extracted 10 unique constructs based on their factor loadings, which represent the core dimensions of the study's model. Each construct was assessed through multiple items, and the rotation successfully converged after 6 iterations. Notably, all items demonstrated factor loadings exceeding 0.8, indicating a strong correlation between the items and their respective constructs.

Among the constructs, Conditional Value (CV) displayed factor loadings between 0.917 and 0.947, demonstrating high reliability in evaluating the contextual value of products. The Functional Value (FV) construct had loadings from 0.904 to 0.935, effectively capturing the practical utility of products. Likewise, Social Value (SV), Emotional Value (EV), Epistemic Value (EPV), and Perceived Consumer Effectiveness (PCE) all showed strong loadings, ensuring robust measurement for these dimensions.

Moreover, both Subjective Knowledge (SK) and Objective Knowledge (OK) reflected high factor loadings, reliably measuring respondents' knowledge about sustainability. Lastly, the Sustainable Consumption Behaviour (SCB) construct was represented by items with loadings between 0.916 and 0.968, indicating the items accurately captured behaviours related to environmentally sustainable consumption. These outcomes confirm the constructs' validity and reliability in the model.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.801
Bartlett's Test of Sphericity	Approx. Chi-Square	7667.567
	Df	91
	Sig.	.000

Source: SPSS output

Table 4: Rotated Component Matrix

Construct	Items	FL
Conditional Value (CV)	CV1	0.947
	CV2	0.935
	CV3	0.930
	CV4	0.917
Functional Value (FV)	FV1	0.930
	FV2	0.904
	FV3	0.935
Social Value (SV)	SV1	0.954
	SV2	0.922
	SV3	0.936
	SV4	0.916
Emotional Value (EV)	EV1	0.900
	EV2	0.860
	EV3	0.976
	EV4	0.923
Epistemic Value (EPV)	EPV1	0.955
	EPV2	0.912
	EPV3	0.964
Subjective Knowledge (SK)	SK1	0.834
	SK2	0.918
	SK3	0.884
Objective Knowledge (OK)	OK1	0.891
	OK2	0.889
	OK3	0.949
Perceived consumer effectiveness (PCE)	PLC1	0.944
	PLC2	0.959
	PLC3	0.932
Environmental concern (EC)	EC1	0.921
	EC2	0.939
	EC3	0.930
Sustainable Consumption Behaviour	SCB1	0.968
	SCB2	0.916
	SCB3	0.966

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 6 iterations.

Measurement of Reliability, Validity and Dimensionality

Confirmatory Factor Analysis (CFA) was conducted to assess the proposed measurement model and its underlying factors, revealing good data fitness. The measurement model displayed favourable indicators: “ $\chi^2/df = 1.747$, $GFI = 0.918$, $AGFI = 0.899$, $CFI = 0.982$, $NFI = 0.960$, $RMSEA = 0.038$, $SRMR = 0.032$, $IFI = 0.983$ ”. Subsequently, to evaluate construct validity and reliability, Cronbach’s α was computed. The obtained values (ranging from 0.785 to 0.989) surpassed the threshold limit of 0.70 (Hair et al., 2006), affirming

validity and reliability. Additionally, convergent and discriminant validity were assessed using three parameters: CR, FL, and AVE (composite reliability, factor loading, and average variance extracted, respectively). Table 5 indicated that standardized factor loadings for all factors exceeded 0.6, ranging from 0.809 to 0.996, surpassing the required threshold. Furthermore, AVE scores (ranging from 0.884 to 0.983) exceeded the threshold limit of 0.50 (Table 5), confirming the reliability and validity (both convergent and discriminant) of the proposed conceptual model (Hair et al., 2006).

Table 5: Result of Confirmatory Factor Analysis (factor loading (FL), validity and reliability)

Construct	Items	FL	α	AVE*	C.R
Conditional Value (CV)	CV1	0.834	0.935	0.884	0.718
	CV2	0.780			
	CV3	Removed			
	CV4	0.922			
Functional Value (FV)	FV1	0.983	0.952	0.952	0.868
	FV2	0.824			
	FV3	0.980			
Social Value (SV)	SV1	0.991	0.965	0.963	0.867
	SV2	0.936			
	SV3	0.888			
	SV4	0.906			
Emotional Value (EV)	EV1	0.890	0.925	0.923	0.862
	EV2	0.813			
	EV3	0.969			
	EV4	0.918			
Epistemic Value (EPV)	EPV1	0.896	0.943	0.944	0.849
	EPV2	0.948			
	EPV3	0.919			
Subjective Knowledge (SK)	SK1	0.730	0.952	0.916	0.788
	SK2	0.963			
	SK3	0.950			
Objective Knowledge (OK)	OK1	0.815	0.902	0.909	0.770
	OK2	0.809			
	OK3	0.996			
Perceived consumer effectiveness (PCE)	PLC1	0.976	0.983	0.983	0.951
	PLC2	0.984			
	PLC3	0.966			
Environmental concern (EC)	EC1	0.931	0.957	0.960	0.888
	EC2	0.927			
	EC3	0.968			
Sustainable Consumption Behaviour	SCB1	0.916	0.958	0.939	0.836
	SCB2	0.920			
	SCB3	0.907			

Note: AVE*= Average Variance Extracted; CR=Composite Reliability

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Measurement of Goodness of fit indices

The Structural Equation Modelling (SEM) was employed to assess the proposed structural model, focusing on analysing the relationships among various factors influencing Sustainable Consumption Behaviour in young college students (including factors like FV, SV, EV, CV, EPV, EC, SK, OK, and PCE). Following a literature review, the theoretical model was constructed, and a pilot test was conducted. The SEM results indicated a good model fit, with all indices meeting or exceeding the minimum acceptable threshold values (“ $\chi^2/df=2.009$, $GFI=0.908$, $AGFI=0.882$, $CFI=0.978$, $NFI=0.957$, $RMSEA=0.045$, $IFI=0.978$ ”) as outlined by Hair et al. (2006). Additionally, the adjusted R-square value of 49.2% falls within acceptable parameters for social science research.

Hypothesis Testing

SEM has been used for hypothesis testing. The outcome of estimates of standardized coefficient indicates that the different factors affecting i.e., PE ($b=0.180$, $p<0.05$), SI ($b=0.098$, $p<0.05$), ES ($b=0.216$, $p<0.01$), LB ($b=-0.086$, $p<0.05$) and PLC ($b=0.212$, $p<0.05$) has positive and significant impact on Technical or professional students MOOC adoption Intention. However, the results depict that EE ($b=-0.031$, $p>0.05$), FC ($b=0.060$, $p>0.05$), HM ($b=0.016$, $p>0.05$), and HA ($b=0.017$, $p>0.05$) indicates insignificant impact on Technical or professional students MOOC adoption Intention (Table 6). Refer figure 3 for validated conceptual framework for present study.

Table 6: SEM output for Hypothesized path Model

Structure Path Estimates	β Coeff.	t- value	p- value	Decision
H1: Social Value ? Sustainable Consumption Behaviour	.180	2.152	.031	Accepted
H2: Functional Value ? Sustainable Consumption Behaviour	.212	2.339	.019	Accepted
H3: Emotional Value ? Sustainable Consumption Behaviour	.088	2.215	.038	Accepted
H4: Epistemic Value ? Sustainable Consumption Behaviour	.098	2.216	.027	Accepted
H5: Conditional Value ? Sustainable Consumption Behaviour	.060	1.296	.195	Rejected
H6: Environmental Concern ? Sustainable Consumption Behaviour	.016	2.211	.033	Accepted
H7: Perceived Consumer Effectiveness ? Sustainable Consumption Behaviour	.086	1.827	.048	Accepted
H8a: Subjective Knowledge ? Sustainable Consumption Behaviour	.016	.251	.802	Rejected
H8b: Objective Knowledge ? Sustainable Consumption Behaviour	.017	4.042	.000	Accepted

Source: SPSS output

In summarizing the study's findings, the structural path estimates revealed statistically significant positive effects of certain factors on sustainable consumption behaviour among young college students in India. Notably, SV, FV, EV, EPV, EC, and

PCE were identified as factors with significant positive impacts. Conversely, CV and SK did not demonstrate significant effects on sustainable consumption behaviour, whereas OK was found to have a notable positive influence (see Figure 2).

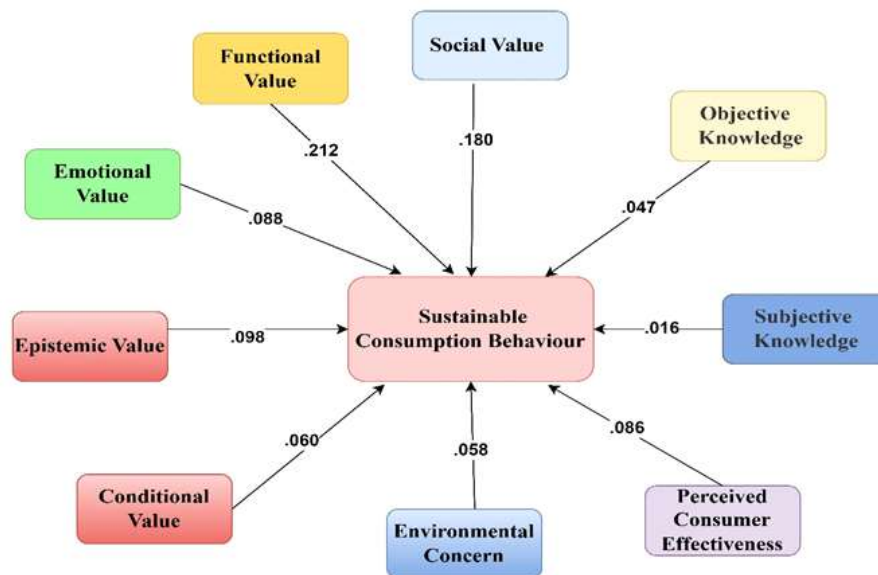


Figure 2: Validated Research Framework

Conclusion and Discussion

Addressing the imperative of sustainable development goals requires tackling the issue of Sustainable Consumption Behaviour (SCB). This study aimed to explore the determinants of SCB among young college students in India. The results indicate that FV, SV, EV, EPV, EC, PCE, and OK are significant factors predicting SCB among this demographic. The study underscores the critical role of functional value in driving SCB. Functional value denotes a product's ability to meet consumers' functional needs, such as convenience, quality, or performance. Young college students in India are more inclined towards SCB when they perceive a product as functional and beneficial, aligning with previous research (Amin & Tarun, 2021; Shin et al., 2021). Social value emerges as another significant predictor of SCB. When young college students perceive a product as associated with a specific

social group, they are more likely to engage in sustainable consumption. This finding echoes previous studies highlighting the importance of social value in driving SCB (Prasad & Jha, 2014; Tabernero et al., 2020). Emotional value and epistemic value also play crucial roles in predicting SCB. Young college students in India are more inclined towards sustainable consumption when they find a product emotionally satisfying and intellectually stimulating. This finding aligns with prior research emphasizing the significance of emotional and epistemic values in driving SCB (Bashir & Mat, 2018; Shin et al., 2021). Moreover, environmental concern emerges as a significant predictor of SCB. Higher levels of concern for the environment among young college students lead to increased engagement in SCB, consistent with past research (Lee et al., 2018; Huang et al., 2020). Perceived consumer effectiveness is another significant

predictor, suggesting that young college students are more likely to adopt SCB if they believe their individual actions can contribute to environmental protection. This finding aligns with prior research emphasizing the importance of perceived consumer effectiveness in driving SCB (Verfuërth & Gregory-Smith, 2019; Zhang et al., 2020). Finally, the study highlights the significance of objective knowledge in predicting SCB, while subjective knowledge did not show significance. This suggests that young college students are more likely to engage in SCB when they possess objective knowledge about sustainability. This finding is consistent with previous research emphasizing the role of knowledge in driving SCB (Verfuërth & Gregory-Smith, 2019; Lin & Huang, 2021). These insights offer valuable guidance for policymakers, marketers, and educators aiming to promote SCB among young consumers in India. Understanding the factors influencing SCB enables targeted interventions and campaigns to encourage sustainable consumption practices. Furthermore, this study underscores the importance of further research on SCB, particularly in the context of developing countries.

Limitation and Future Research Scope

Although this study offers valuable insights, there are some limitations to consider. Firstly, the research focused exclusively on young college students in India, which may not reflect the broader population. Moreover, the study employed a quantitative research approach, which might not fully capture the complexities of sustainable consumption behaviour. Additionally, self-reported data were used, which could be influenced by social desirability bias. Future studies could expand on this research by exploring sustainable consumption behaviours across various age groups and socio-economic backgrounds, offering a more comprehensive perspective on consumer behaviour. Additionally, future research can explore the potential of qualitative research methods to capture the subjective and experiential dimensions of sustainable consumption behaviour. Moreover,

future research can focus on developing effective interventions and policies that can promote sustainable consumption behaviour among consumers. Finally, future research can explore the role of culture, values, and norms in shaping sustainable consumption behaviour in India.

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