



## CONSUMER DECISION-MAKING STYLES AMONG UNIVERSITY STUDENTS: AN EMPIRICAL STUDY

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### **Abstract**

*An empirical study has been carried out for profiling the consumer decision-making styles among university students and to find out the difference in decision-making styles between the university students of Bhubaneswar and New Delhi. The instrument is adapted to find out the decision-making styles among university students are according to some selected variables from the Consumer Style Inventory (CSI) developed by Sproles & Kendall (1986). There are seventypes of decision-making stylesof students emerged in this study and they are "Recreation & Fashion Consciousness", "Health/hygiene & brand consciousness", "Store/Brand loyal", "Safety & Environment Consciousness", "High Quality Consciousness" "Impulsive & Price/Value Conscious" 'Confused by Over Choice.' The decision-making styles emerged are combination of the eight factors originally immerged in study of Sproles & Kendall (1986). The applicability of the original 40 items based CSI in Indian context is not fully confirmed without modification, and addition/deletion of some variables as suitable for the Indian context which is also suggested by the previous studies. Two new decision-making styles "safety and environment consciousness" and "health/hygiene & brand consciousness" are emerged as the students are now a day showing their concerns towards health/hygiene, environment and safety.*

**Key Words:** *Decision-Making Styles, Consciousness, CSI.*

### **Introduction**

The world is on the threshold of a 'New Global Age' (OECD, 1997e, p.7 cited in Whitfield Dexter, 2001, pp. 205-206), and under the impact of globalization national economies are increasingly being integrated with the global economy. Markets are becoming global, not only for goods but also for services and world is expanding at a blistering pace and financial markets are getting increasingly inter connected. Not only an increasing number of developed countries but also developing countries too are removing trade barriers and controls and are encouraging foreign brands to operate in their economies. These developments have altered the economic landscape of the world, and economic boundaries are being redrawn and a borderless world is emerging. And with the advent of transnational companies in Indian domestic markets, competition has intensified enabling the consumer to have more alternatives to meet their lifestyles. It is also being increasingly realised that only companies that are developing products of global standard conforming to the changing requirements of the consumers would be able to retain their market share and earn profit.

India, being one of the emerging economies, the income level of the people has increased substantially over the time enabling them to have more disposable income than earlier times. To avail this opportunity retailers and marketers are now adopting different methodologies to woo the consumers to buy extensively and impulsively the merchandise which can fulfill their needs. In this context marketers have realized that success of their businesses rely only on the accurate information about purchasing behaviour and decision-making style of the consumers. As India is having a large number of populations of young people in the age group of 18 to 35. Now it is a concern for all the marketers and the retailers to find out what influences and impacts the young consumers' purchasing behaviour and decision-making styles, is it their offerings, style of offering, marketing strategies or something else. The consumer behaviour is influenced by many factors like; cultural, social, personal and psychological factors. When we take the personal factors in to account buyers' decisions are generally influenced by personal characteristics which includes the buyer's age and stage in the life cycle; occupation and economic circumstances; personality and self-concept; and lifestyle and values. As per Maslow's hierarchy of needs the psychological need comes after the physiological needs and the lifestyle of a consumer mostly influenced by the psychological needs

and not the physiological needs. It is absolutely true that attempts are made by every retailer to design their marketing strategies to meet the needs, wants and demands of the customers but in addition to that studying decision-making styles of the customers is equally important and accordingly provisions of those products as per customer need to be made by the retailers.

### Theoretical Background

According to Schiffman and Kanuk,(2007) Consumer behaviour defined as “the behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs”. In an interpretation theoretically, these behaviours were reflections of both the cognitive and emotional aspects of consumer decision-making and could be influenced through cross-disciplines of psychology, sociology, social psychology, and anthropology and economics (Schiffman and Kanuk, 2007 p.35; Sproles and Kendall, 1986). A simplified model of Consumer Behaviour was proposed in distinctive but interlocking stages- input, process, and output stages, based on different levels of acquiring purchase and consumption knowledge and experience, shown in Fig-1 (Schiffman & Kanuk,2007). Through the four view the model of consumer decision-making was understood; Economic View which perceived consumers as rational decision makers ; Passive view which portrayed consumers as irrational and impulsive purchaser; a Cognitive view which characterized consumers as thinking problem solvers ; and an emotional view which recognized consumers as possessive shoppers influenced by their feelings and moods(Schiffman and Kanuk,2007, p.548). The model depicted in a precise way to a conclusion that Consumer Behavior and Decision-Making were interdisciplinary. The consumer decision-making process plays a major role in consumer behavior as it has been described through the consumer behaviour model (Schiffman and Kanuk, 2007).

**Model of Consumer Behaviour:** The basic model of consumer behavior is appended below:

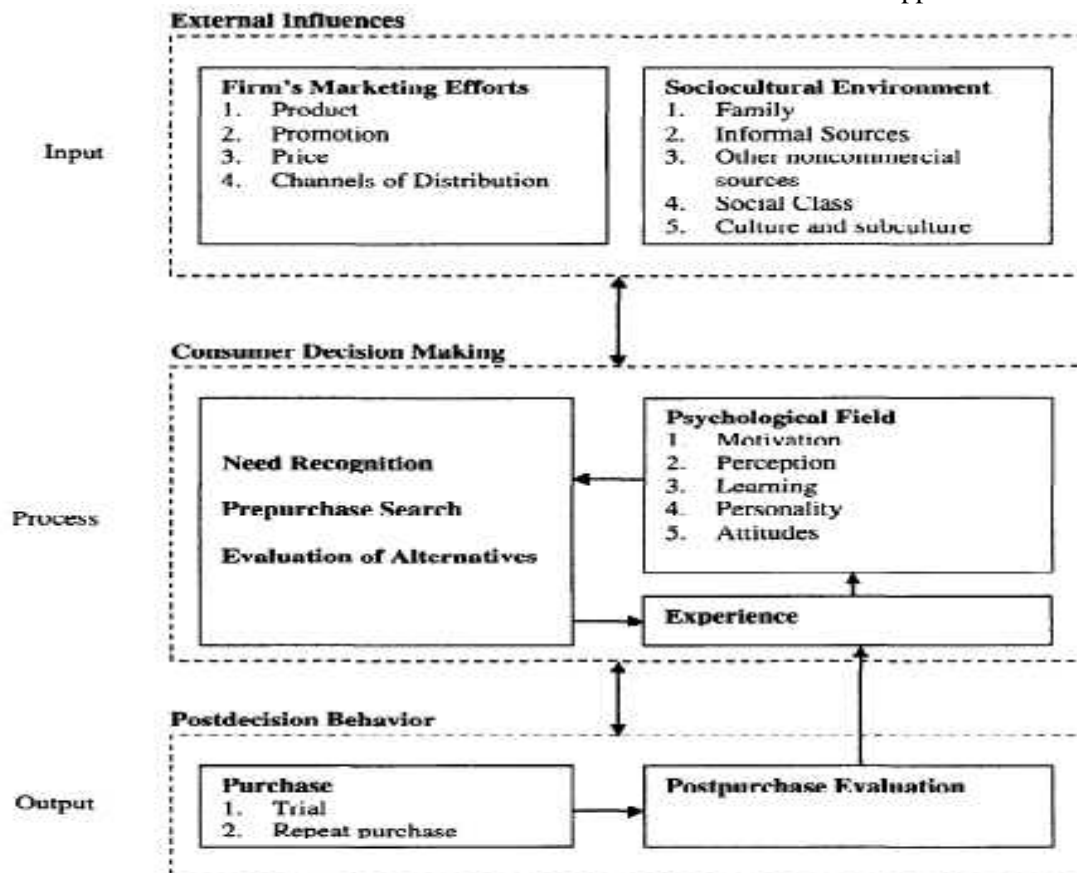


Figure 1. A simple model of Consumer Decision-Making.

(Adapted from “Introduction”, by Schiffman,L and Kanuk L.L ,2007, *Consumer Behaviour* (9<sup>th</sup> ed.) p.36

## Literature Review

### Consumer Decision-Making Style

As the consumer decision making is a complex process, the decision making style may vary from consumer to consumer. To understand the consumer decision-making style there had been numerous studies across the world and the literatures on Consumer Decision-Making Style were searched and reviewed.

### Approaches to Characterize Consumer Styles

There had been three approaches to characterize consumer styles:

1. The consumer typology approach (Darden and Ashton,1974) on the basis of supermarket preference, unique store patronage segment were identified.
2. Psychographic/lifestyle approach (Lastovica,1982), on the basis of lifestyle traits characterising the consumer style.
3. Consumer characteristic approach focusing cognitive and affective orientation of the consumer (Sproles,1985 cited on Sproles & Kendall,1986 ).

### Consumer Characteristic Approach

Sproles and Kendall (1986) were the first to establish the core concept of consumer decision-making styles. According to them “A consumer decision-making style is defined as a mental orientation characterizing a consumer’s approach to making choices. In essence, it is a basic consumer personality, analogous to the concept of personality in psychology”( Sproles and Kendall ,1986).

In their study Sproles and Kendall (1986) used Consumer Styles Inventory (CSI) of 40 items based on exploratory study (Sproles, 1985) administered to 482 High school students of Tucson area of U.S.A to measure the mental characteristics of decision making, each item was measured by 5 point Likert scale of one to five, with ratings of “Strongly Disagree” and “Strongly Agree” as end points. The sample was selected by considering the high schools in urban, suburban, rural locations and represented the socio economic groups in the area.

After factor analysis with varimax rotation of the 40 items CSI, Eight Factor model was emerged and the Eight

### Factors (Eight mental characteristics of consumer decision-making) were described as follows:

1. *Perfectionistic, high-quality conscious consumer*: A Consumer who searches for the best quality in products and expected to shop more carefully and systematically.
2. *Brand conscious, “price equals quality” consumer*: A Consumer who buys more expensive and well-known brands, the consumer who believes higher price means higher quality.
3. *Novelty-Fashion conscious consumer*: A Consumer who is fashion as well as novelty conscious and likely to gain excitement and pleasure from seeking out new things. Style and variety seeking are important aspect in the characteristic.
4. *Recreational, hedonic shopping conscious consumer*: A Consumer who finds shopping pleasant and shops for the fun.
5. *Price conscious, “Value for money” consumer*: A consumer who is price conscious and concerns about getting the best value for money and also prefers sale prices and is likely to be a comparison shopper.
6. *Impulsive, careless consumer*: A consumer who does unplanned shopping and unconcerned about the spending and careless about getting the “best buys”.
7. *Confused by over choice consumer*: A consumer who is confused in choosing one from many brands, stores and faces difficulty in making choices when there is information overload.
8. *Habitual, brand-loyal consumer*: A consumer who is more likely to have favorite brands and stores; is habitual and loyal to these brands and stores.

A profile of consumer style had been developed by selecting 3 sub items under each factor with highest factor loading and the dominant characteristics were identified.

The CSI (Consumer Styles Inventory) and PCS (Profile of Consumer Style) is useful measurement system which provided a foundation for standardized testing of consumer decision-making styles. The study of Consumers’ decision-making style helps in identifying the basic characteristics of decision-making styles of consumers; which

is useful for profiling an individual's consumer decision-making style and also educate consumers about their specific decision making characteristics.

However, the applicability of the eight factor model for generality and the applicability of CSI and PCS across the regions and cultures were suggested for further research. Maximum use of the CSI (Consumer Styles Inventory) and PCS (Profile of Consumer Style) was also suggested for validation of CSI in future study.

### **Applicability and Validity of CSI (Consumer Styles Inventory) Across the World**

#### **Applicability of CSI in U.S.A. & Korea**

Further on the basis of recommendation of the study by Sproles and Kendal(1986) a study had been carried out by Hafstrom, Chae and Chung (1992) to make comparison between decision-making styles of young consumers of U.S. and Korea for confirmation of the validity of the eight factors. Outcome of the study with the argument that “there is reason for cautious optimism that the CSI has elements of construct validity and has potential use across international populations”(p.120).

#### **Applicability of CSI in U.S.A. & New Zealand**

Further on the basis of recommendation of the study by Sproles and Kendal(1986) and Hafstrom, Chae and Chung (1992) a study had been carried out by Durvasula S, Lysonski S and Andrews C (1993) to make comparison between decision-making styles of young consumers of U.S. and New Zealand for confirmation of the validity of the eight factors emerged from 40 items based CSI. Outcome of the study was the New Zealand results compared favourably to those of U.S. and provided **general support** for the CSI. However, not all the results were equivalent. The factors “Impulsive” and “Brand Conscious” are culture specific, Price-value conscious and Habitual, Brand-Loyal factors required refinement. Though few discrepancies existed in the two results of two countries samples it might be due to sample differences across different retail environments. It was warranted in the study that the scale validated in U.S to be used after validation through CFA (Confirmatory Factor Analysis) in other countries. More robust factor model using CSI was encouraged for further research.

#### **Cross Cultural Applicability of CSI in U.S.A, New Zealand, Greece & India**

Both the above studies urged additional research on other populations to examine the transferability of this CSI instrument and usability of CSI in other cultures and countries. Lysonski & Durvasula et.al (1996) carried out a study to examine the CSI on university students in four countries namely ( New Zealand, Greece, U.S.A and India). The outcome of the study was eight factor solution but it was very difficult to interpret in Greek and Indian Sample, again the items on each factor was inspected and 6 items including all three items under “price and value conscious” factor from the 40 items CSI were deleted and again factor analysis was carried out with 34 items and seven factors were obtained.

The CSI receives some support from four different countries (USA and New Zealand ; Developed countries and Greece and India; developing countries) . CSI was found to be more applicable to developed countries and explained that these inventories cannot be applied in developing countries without modification of the instrument. The difference was due to difference in culture and retail environment. Support was found for a modified version of the CSI and can be useful if used after validation.

#### **Applicability CSI on the basis of Regional Differentiation in China**

By using the framework of CSI the study by Zhou et.al(2010) explored both conceptually and empirically, the similarities and differences in consumer culture and the associated similarities and differences in decision-making styles between coastal and inland consumers in China. The study was conceptualized on the basis of the eight decision-making styles had been divided into two groups namely utilitarian and hedonic shopping styles. Utilitarian style comprised of four factors namely(quality consciousness, price and value consciousness, confusion due to over choice, and impulsiveness) and Hedonic style comprised of four factors namely (brand consciousness, novelty and fashion consciousness, recreational and hedonic shopping consciousness, habitual and brand loyalty consciousness) . The findings suggested that there was difference between the decision-making styles of the two regions, where coastal consumers were more brand conscious in China.

### **Decision-Making Styles of Young Consumers of India over a Period of Time 1994-2009 and the Evolution of Mindset.**

India had undergone a dramatic change in its retail markets since economic liberalization in 1992. In the study of Lysonski and Durvasula (2013) longitudinal analysis had been carried out to investigate whether there was any change occurred during the period 1994-2009 in these 8 decision making styles by using the framework of CSI developed by Sproles and Kendal (1986). The consumer characteristic approach by Sproles and Kendall (1986) was the most robust explanatory method which delves into consumers' cognitive and affective orientations in their process of decision making in shopping context. The dimensionality and internal consistency estimates for the shopping style inventory showed that the results for the 2009 sample are similar to those of 1994 sample. Four of the eight shopping style dimensions (perfectionist, brand conscious, novelty conscious, and confused by over choice) exhibited acceptable reliability with alpha co-efficient exceeding 0.70 while the other four dimensions exhibited marginal reliabilities that was 0.60.

#### **The Outcome of the Longitudinal Analysis**

A multivariate analysis of variance had been performed and the eight shopping styles served as the dependent variables and the sample type (2009 Vs 1994) served as factor variable. The purpose of this analysis was to determine whether the mean vector for the eight shopping style variable was significantly different for the two samples. Results showed that the mean values of "brand-conscious", "novelty conscious", "impulsive" dimensions were higher for the 2009 sample while the mean value of "perfectionist" dimension was higher for the 1994 sample. Two other dimensions increased were "recreational-hedonistic" and "habitual-brand loyal" but not statistically significant. The style "price consciousness" and "confused by over-choice" dimensions did not change over the time but the means of both the dimensions were above the midpoint of the scale.

They had used the concept of the study of Zhou et.al (2010) in which the 8 decision-making style had been divided into two groups namely utilitarian and hedonic shopping styles. Utilitarian style comprised of four factors namely (quality consciousness, price and value consciousness, confusion due to over choice, and impulsiveness) and Hedonic style comprised of four factors namely (brand consciousness, novelty and fashion consciousness, recreational and hedonic shopping consciousness, habitual and brand loyalty consciousness). The change over the time period had been studied for the above two group of styles.

In summary, the changes involved two hedonic styles (i.e. "brand-conscious", "novelty/fashion conscious",) and two utilitarian styles (i.e. "impulsive" and "perfectionist/quality conscious")

Further there was no much more studies carried out in India, a bifurcated society and there is a sharp contrast in wealth between rural and urban sectors and further study could be carried out for better understanding of the decision making style of the Indian consumers.

### **Decision-Making Style of Young Consumers of India and the New Factors of Consumer Decision-Making Styles**

The study by Mishra A (2010) on Consumer decision-making styles and young-adult consumers in India the CSI developed by Sproles and Kendall (1986) had been used with a modification and ten factors were identified instead of eight. The two factors "dissatisfied shopping consciousness" and "store loyal" are extra factors with Cronbach's alpha 0.787 and 0.589 respectively with five items loaded under "dissatisfied shopping consciousness" factor. The Indian ten factor model also confirmed all eight characteristics developed by Sproles and Kendall (1986). This study also suggested for refinement of CSI and can be tested in different region and culture and also rural and urban region. Specific consumer group could be targeted for generalization of the applicability of CSI. The study by Tanksale (2014) primarily aimed at identifying decision-making style of young consumers aged between 18 to 21 years to see if these styles were similar to those found in previous research studies. The CSI developed by Sproles and Kendall (1986) was used in the research and the original eight factor model could not be confirmed completely, however support was found for six decision making styles. One new factor Shopping avoidance-time saver specific to Indian sample was found. The study also emphasized in its outcome that CSI need to be validated and modified before using it cross culturally. As different segments like socio-

economic strata, region (rural-urban) were not considered in the study, the study could be undertaken for considering the diversity of rural and urban consumers' choice and styles.

The study by Dubey A (2014) young consumers decision making behavior towards casual wear buying in Uttar Pradesh, India the revised six factor model derived out of eight factor model of Sproles and Kendall (1986) was confirmed and further from the revised six factor model five factors (Recreational and hedonic consciousness, perfectionism consciousness, confused by over choice, habitual and brand loyal, price and value consciousness) were confirmed. Only Brand and fashion conscious was differed from Sproles and Kendall (1986) study.

### **Influence of Age, Gender and CSI on Indian Consumer**

Khare Arpita (2012) tried to study the influence of age, gender and Consumer Style Inventory (CSI) on Indian Consumers' local retailer loyalty. The findings suggested CSI could not be applicable in Indian conditions, and only three decision styles namely 'Quality conscious, Brand conscious and Utilitarian conscious emerged as significant. Age and gender have a moderating influence on CSI in predicting Indian consumers' local retailer loyalty. The brand conscious and utilitarian conscious consumers are more loyal to local retailers. Young and female consumers preferred to shop from local retailers.

The research had been undertaken with the data collected from Northern part of India, Future study could be undertaken in other part of India for generalization of the CSI and its applicability as the other studies also suggested by Mishra(2010) and Lysonski et.al(1996)

Hence the test of applicability of CSI in other part of India can make it robust scale for use.

### **Objectives of the Study**

The following objectives are formulated on the basis of literature reviewed and according to the gaps found out in the literatures:

- To Profile the consumer decision-making styles of the University students of Bhubaneswar and New Delhi.
- To find out the difference in consumer decision-making styles between the University students of New Delhi & Bhubaneswar.

### **Sample & Source of Data**

As the scope of the study is restricted to the university students, a purposive & random sampling has been done in the study.

### **Sampling Design**

The sampling design is consisting of sampling frame which defines the list of students of MBA programme in GGSIP University, Delhi and Utkal University, Bhubaneswar, the sampling unit which is the 1<sup>st</sup> and 2<sup>nd</sup> year student selected randomly and the students are in the age group of 21-24 years. Both boys and girls students are selected in the sample.

### **Research Methodology**

#### **Research Design Approach**

A descriptive approach has been adopted in the research design; the descriptive approach has led us to get the desired result by using cross-sectional study. The cross-sectional study among the university students has been based upon the methodologies adopted in previous empirical studies conducted various part of the world as well as India. It has been helpful on fulfillment of the objectives of the research.

#### **Pilot Study for Reliability**

A pilot study for reliability test has been carried out with 10 respondents and the questionnaire has been reframed as per the result of the pilot study after rephrasing some questions and dropping some questions. Only those questions selected which are suitable for the study.

### Tools for Data Analysis

The data analysis has been done with descriptive statistics and also techniques like factor analysis used to find out the factors (decision-making styles) among the university students and independent sample t-test for investigating the difference in decision making styles among university students. SPSS-19 statistical software has been used for analysis of the data.

### Objective–Wise Methodology

The methodologies adopted to achieve the objectives are as follows

Objective No.	Objectives	Methodology adopted
1.	To Profile the consumer decision-making styles among the University students.	This objective is satisfied through Exploratory Factor Analysis by deriving the factors by data reduction method with extracting the factors from the variables.
2.	To find out the differences in consumer decision-making styles among the University students of Bhubaneswar and New Delhi.	The difference in consumer decision-making styles among university students of Bhubaneswar and Delhi has been investigated through testing the means by t-test of independent sample means.

### Data Analysis& Findings

The data has been analysed by using appropriate statistical methods as applicable to meet the objectives.

**Reliability of the scale:** The reliability of the scale is tested by using SPSS-19 software and in the sample size of 37, a total 23 items were included in the scale reliability test, the Cronbach's alpha is 0.604 and which is acceptable.

### Objective-1: To Profile the Consumer Decision-Making Styles among the University Students of Bhubaneswar and New Delhi.

#### Statistical Methods Used and Analysis Carried out

In the data analysis the Multivariate technique has been used and under which the Interdependence Technique i.e. Factor Analysis has been carried out. As the factor analysis gives the result by combining the related variables in to groups which is helpful for grouping similar characteristic in to one group or factor. The output of the factor analysis after the data has been analyzed by using SPSS-19 software is as follows:

**Factor Analysis: Out Put of SPSS-19,  
Table-1**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.528
Bartlett's Test of Sphericity	Approx. Chi-Square	251.930
	Df	153
	Sig.	.000

	Initial	Extraction
Getting Very Good Quality is important to me	1.000	.672
I usually try to buy the best overall quality	1.000	.763
I make a special effort to choose the very best quality products	1.000	.808
The well-known brands are best for me	1.000	.622
I Keep my wardrobe, up-to-date with the changing fashion	1.000	.667
Fashionable, attractive styling is very important to me	1.000	.839
Going shopping is one of the enjoyable activities in my life	1.000	.812
I enjoy shopping just for the fun of it	1.000	.815
I look carefully to find the best value for money	1.000	.715
I am impulsive when purchasing	1.000	.784
All the information I get on different products confuses me	1.000	.871
I have favourite brands I buy over and over	1.000	.659
Once I find a product or brand I like, I stick to it	1.000	.811
I go to the same stores each time I shop	1.000	.841
I consider health and hygiene while selecting a product or brand	1.000	.752
My first preference is clean shopping environment	1.000	.729
Environment friendly products are always my preference	1.000	.792
I never compromise with safety issues associated with the product	1.000	.858

Extraction Method: Principal Component Analysis.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.366	18.698	18.698	3.366	18.698	18.698	2.730	15.169	15.169
2	3.013	16.736	35.435	3.013	16.736	35.435	2.487	13.817	28.986
3	1.793	9.958	45.393	1.793	9.958	45.393	1.917	10.649	39.635
4	1.710	9.499	54.892	1.710	9.499	54.892	1.865	10.361	49.995
5	1.502	8.347	63.239	1.502	8.347	63.239	1.786	9.922	59.917
6	1.240	6.888	70.127	1.240	6.888	70.127	1.640	9.108	69.026
7	1.186	6.591	76.718	1.186	6.591	76.718	1.385	7.692	76.718
8	.808	4.490	81.208						
9	.686	3.809	85.017						
10	.587	3.262	88.279						
11	.491	2.728	91.007						
12	.413	2.293	93.300						
13	.336	1.866	95.166						
14	.273	1.518	96.684						
15	.212	1.176	97.860						
16	.162	.901	98.761						
17	.114	.631	99.392						
18	.110	.608	100.000						

Extraction Method: Principal Component Analysis.



**Table-4**

<b>Rotated Component Matrix<sup>a</sup></b>							
	Component						
	1	2	3	4	5	6	7
I enjoy shopping just for the fun of it	.869						
I Keep my wardrobe, up-to-date with the changing fashion	.782						
Going shopping is one of the enjoyable activities in my life	.709						
Fashionable,attractive styling is very important to me	.696						
My first preference is clean shopping environment		.822					
I consider health and hygiene while selecting a product or brand		.747					
The well- known brands are best for me		.682					
I have favourite brands I buy over and over		.506					
I go to the same stores each time I shop			.885				
Once I find a product or brand I like, I stick to it			.812				
I never compromise with safety issues associated with the product				.916			
Environment friendly products are always my preference				.701			
I make a special effort to choose the very best quality products					.834		
I usually try to buy the best overall quality					.646		
Getting Very Good Quality is important to me					.581		
I am impulsive when purchasing						.813	
I look carefully to find the best value for money						.797	
All the information I get on different products confuses me							.916
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.							
a. Rotation converged in 8 iterations.							

**Interpretation**

In the pre analysis part the **KMO and Bartlett's Test (Table-1)** which shows the result of sampling adequacy is 0.528. Factor analysis can be carried out if the KMO measure of Sampling Adequacy is more than 0.5 and Bartlett's Test of Sphericity is 251.930 which is significant at  $p < .001$  thus, indicating the sample is suitable for factor analysis (Malhotra and Dash, 2012, p.590). The null hypothesis  $H_0$  assumes that the population correlation matrix of the measures is an identity matrix for a KMO & Bartlett's Test and here the Chi-square test statistic is 251.930 and the p-value of 0.000 is implied that there is a very low probability of obtaining this result (a value greater than or equal to the obtained value) if the null hypothesis is true. Therefore, the null hypothesis is rejected and it is concluded that the variables are correlated with each other.

The factor analysis is primarily aimed at investigating the properties related to psychometric in the CSI. The data was analysed thorough SPSS-19 to summarise (Table-2 to 4) the 18 variables which includes the 14 selected variable from CSI and 04 newly introduced variables to check the health/hygiene and safety and environment consciousness characteristics of the consumers. The data are subjected to principal component analysis, under exploratory factor analysis. The data are analysed through varimax rotation to reduce the variables into groups with factor loading 0.4 and above, the same level as used by Sproles and Kendall (1986) were considered to be significant. The factors with eigen values greater than one are considered to be significant.

**Table-5 : A summarized table showing the result of Factor Analysis**

<b>Profile of Consumer Decision-Making Styles</b>				
<b>Factors/Items</b>	<b>Factor Loading</b>	<b>Eigen-value</b>	<b>Variance (%)</b>	<b>Cumulative Variance (%)</b>
<b>Factor-1</b>				
I enjoy shopping just for the fun of it	.869	3.366	18.698	18.698
I Keep my wardrobe, up-to-date with the changing fashion	.782			
Going shopping is one of the enjoyable activities in my life	.709			
Fashionable,attractive styling is very important to me	.696			
<b>Factor-2</b>				
My first preference is clean shopping environment	.822	3.013	16.736	35.435
I consider health and hygiene while selecting a product or brand	.747			
The well-known brands are best for me	.682			
I have favourite brands I buy over and over	.506			
<b>3. Factor-3</b>				
I go to the same stores each time I shop	.885	1.793	9.958	45.393
Once I find a product or brand I like, I stick to it	.812			
<b>4. Factor-4</b>				
I never compromise with safety issues associated with the product	.916	1.710	9.499	54.892
Environment friendly products are always my preference	.701			
<b>5. Factor-5</b>				
I make a special effort to choose the very best quality products	.834	1.502	8.347	63.239
I usually try to buy the best overall quality	.646			
Getting Very Good Quality is important to me	.581			
<b>6. Factor-6</b>				
I am impulsive when purchasing	.813	1.240	6.888	70.127
I look carefully to find the best value for money	.797			
<b>7. Factor-7</b>				
All the information I get on different products confuses me	.916	1.186	6.591	76.718

In the Table-5 The result of the factor analysis shows 7 factors of eigen values greater than 1.0 and accounted for 76.718% of total variance, and it is imperative to say that the total variance explained is much higher than the previous studies reviewed in our literature review.

In order to establish the internal consistency, Cronbach's alpha is calculated for the factors and the results are shown in Table-6.

**Table-6: Internal Reliability of the constructs**

Sl. No.	Factors	Cronbach's alpha	No. of Items
1	<b>Factor-1</b>	0.820	4
2	<b>Factor-2</b>	0.717	4
3	<b>Factor-3</b>	0.701	2
4	<b>Factor-4</b>	0.649	2
5	<b>Factor-5</b>	0.528	3
6	<b>Factor-6</b>	0.617	2
7	<b>Factor-7</b>	For single item , Cronbach's not calculated	1

Referring to Table-5, Factor-1 represents the characteristics of recreation through fun and enjoyment in shopping and the conscious ness towards the fashion and style while decision-making. Factor-2 represents the characteristics of health/ hygiene consciousness with brand consciousness. Factor-3 represents the characteristics of loyalty towards a particular store and also loyalty towards a particular brand. The factor depicts the loyalty factor towards a store/brand. Factor-4 represents the decision making style with safety conscious ness and also Environment consciousness. It is a new factor which emerged as the safety and environment is also a great concern for the consumers now a days. Factor -5 represents the concern for quality in decision-making by the consumers. Best quality product is sought after when this decision-making style is adopted by the consumers. Factor-6 represents the characteristic of impulsiveness and the consciousness towards price and value in decision-making by the consumers. Factor-7 represents the characteristic of confused by over choice by the consumers. The Internal Reliability of the constructs has been tested and the results are shown in the Table-6. The 5 factors immerged in the study are having cronbach's alpha more than 0.6 and are statistically reliable only one factor i.e. Factor-5 is having a cronbach's alpha 0.528 seems to be marginally reliable statistically. Factor-7 is having only one variable so the Chronbach's alpha has not been calculated.

**Objective -2: To Find out the Difference in Consumer Decision-Making Styles between the University Students of New Delhi & Bhubaneswar.**

The difference in consumer decision-making styles between the university students of New Delhi and Bhubaneswar has been investigated through testing the means by t-test of independent samples through the software SPSS-19. The total sample size of 37 students is consisting of 16 students from GGSIP University, New Delhi and 21 students from Utkal University, Bhubaneswar. The hypothesis has been drawn as per the objective-2 is as follows:

**Ho:** There is no significant difference in consumer decision-making styles between the University Students of New Delhi and Bhubaneswar.

**Ha:** There is a significant difference in consumer decision-making styles between the University Students of New Delhi and Bhubaneswar.

To test the hypothesis independent sample t-test has been carried out and the output of statistical test is as mentioned in Table-7 for Comparing Means (group statistics) & Table-8 (independent sample t-test)

**Table-7: Comparison of the Means for each Variable Considering the University Students from New Delhi and Bhubaneswar as Independent Group**

Group Statistics					
Decision-Making Styles	Place	N	Mean	Std. Deviation	Std. Error Mean
Novelty/Fashion and Recreation/Hedonic Conscious	New Delhi	16	-.17152	.971373	.242843
	Bhubaneswar	21	.13068	1.025114	.223698
Brand & Health/Hygiene Conscious	New Delhi	16	-.22823	.994095	.248524
	Bhubaneswar	21	.17389	.992680	.216621
Habitual Brand & Store Loyal	New Delhi	16	.01096	.980644	.245161

	Bhubaneswar	21	-.00835	1.038549	.226630
Environment & Safety Conscious	New Delhi	16	.35883	.837962	.209490
	Bhubaneswar	21	-.27340	1.044927	.228022
Perfectionist/ Quality Conscious	New Delhi	16	.09383	.883180	.220795
	Bhubaneswar	21	-.07149	1.096625	.239303
Impulsive & Price/Value Conscious	New Delhi	16	-.20356	.948117	.237029
	Bhubaneswar	21	.15509	1.033150	.225452
Confused by over Choice	New Delhi	16	.13709	1.051053	.262763
	Bhubaneswar	21	-.10445	.972098	.212129

**Table-8: Output of Independent Sample t-test (the university students from New Delhi and Bhubaneswar as independent group)**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Novelty/Fashion and Recreation/Hedonic Conscious	Equal variances assumed	.003	.955	-.908	35	.370	-.302199	.332650	-.977515	.373116
	Equal variances not assumed			-.915	33.283	.367	-.302199	.330172	-.973723	.369325
Brand & Health/Hygiene Conscious	Equal variances assumed	.125	.725	-1.220	35	.231	-.402112	.329614	-1.071264	.267040
	Equal variances not assumed			-1.220	32.417	.231	-.402112	.329679	-1.073308	.269085
Habitual Brand & Store Loyal	Equal variances assumed	.008	.931	.057	35	.955	.019311	.336533	-.663888	.702509
	Equal variances not assumed			.058	33.334	.954	.019311	.333864	-.659682	.698303
Environment & Safety Conscious	Equal variances assumed	2.266	.141	1.981	35	.055	.632231	.319131	-.015640	1.280102
	Equal variances not assumed			2.042	34.879	.049	.632231	.309645	.003540	1.260922
Perfectionist/ Quality Conscious	Equal variances assumed	1.923	.174	.493	35	.625	.165320	.335387	-.515551	.846192

	Equal variances not assumed			.508	34.861	.615	.165320	.325602	-.495780	.826421
Impulsive & Price/Value Conscious	Equal variances assumed	.528	.472	-1.083	35	.286	-.358656	.331044	-1.030711	.313399
	Equal variances not assumed			-1.096	33.719	.281	-.358656	.327126	-1.023660	.306348
Confused by over Choice	Equal variances assumed	.209	.650	.723	35	.474	.241547	.334063	-.436637	.919732
	Equal variances not assumed			.715	31.036	.480	.241547	.337703	-.447170	.930264

### Interpretation

Referring the result of the independent sample t-test shown in Table-8 it has been understood that majority of the factors (decision-making styles) are having the sig-2 tailed 'p' value more than 0.05 i.e at 5% level of significance or 95% confident interval . Hence, we failed to reject the null hypothesis and accept the proposition 'Ho: There is no significant difference in decision making styles between the university students of New Delhi and Bhubaneswar '. **So, there is no significant difference in the decision making styles between the university students of New Delhi & Bhubaneswar.**

### Findings

After the data analysis done by using the appropriate statistical methods for each objective separately the findings are as follows:

**Objective-1: To Profile the consumer decision-making styles among the University students of Bhubaneswar and New Delhi.**

**Findings:** It has been found in the factor analysis that the 7 factors immersed are not totally equivalent to 8 factors emerged in the study of Sproles and Kendall (1986) study. The seven factors emerged are and named as follows:

Sl. No.	Factors	Cronbach's alpha	No. of Items
1	<i>Factor-1 : Recreation &amp; Fashion Conscious</i>	0.820	4
2	<i>Factor-2 : Health/hygiene &amp; Brand Conscious</i>	0.717	4
3	<i>Factor-3 : Store/Brand Loyal</i>	0.701	2
4	<i>Factor-4 : Safety &amp; Environment Conscious</i>	0.649	2
5	<i>Factor-5 : High Quality Conscious</i>	0.528	3
6	<i>Factor-6 : Impulsiveness &amp; Price/Value Conscious</i>	0.617	2
7	<i>Factor-7: Confused by Over Choice</i>	For single item , Cronbach's not calculated	1

Factor-1 is named as "Recreation & Fashion Conscious" which is a combination of "Recreation/ hedonic conscious" and "Fashion conscious". In Sproles and Kendall (1986) study they were two separate factors it represents the characteristics of recreation through fun and enjoyment in shopping and the conscious ness towards the fashion and style while decision-making.

Factor-2 is named as "Health/hygiene & brand conscious" and it represents the characteristics of health/ hygiene consciousness with brand consciousness. This is a new factor immersed in combination of Health/hygiene and brand consciousness. The brand conscious factor emerged out of the study of Sproles & Kendall (1986) is confirmed in this factor.

Factor-3 is named as “*Store/Brand loyal*” and it represents the characteristics of loyalty towards a particular store and also loyalty towards a particular brand. The decision making style which depicts the loyalty factor towards a store/brand. It confirms with the factor Habitual & Brand Loyal emerged in Sproles and Kendall(1986) study  
Factor-4 is named as “*Safety & Environment Conscious*” and it represents the decision making style with safety conscious ness and also Environment consciousness. It is a new factor which emerged as the safety and environment is also a great concern for the consumers now a days.

Factor -5 is named as “*High Quality Conscious*” and under this factor the concern for quality in decision-making by the consumers is highlighted. Best quality product is sought after when this decision-making style is adopted by the consumers. It confirms with the factor perfectionist/high quality conscious emerged in Sproles and Kendall(1986) study.

Factor-6 is named as “*Impulsive & Price/Value Conscious*” and it represents the characteristic of impulsiveness and the consciousness towards price and value in decision-making by the consumers. It confirms with the two factors “Impulsiveness” and “Price Conscious” emerged in Sproles and Kendall(1986) study.  
Factor-7 is named as “*Confused by over choice*” and it represents the characteristic of confuse by over choice in decision-making by the consumers. It confirms with the factor “Confused by over choice” emerged in Sproles and Kendall(1986) study.

Eight factors immerged in Sproles and Kendall (1986) study has been partially confirmed in our factor analysis but not totally all the variables are confirmed as we have adapted only 14 selected variables from the 40 items CSI scale of Sproles and Kendall (1986) study.

### **Objective -2: To find out the difference in consumer decision-making styles between the University students of New Delhi & Bhubaneswar.**

The following hypothesis has been drawn to meet the objective

**Ho:** There is no significant difference in consumer decision-making styles between the University Students of New Delhi and Bhubaneswar.

**Ha:** There is a significant difference in consumer decision-making styles between the University Students of New Delhi and Bhubaneswar.

### **Findings for the objective-2**

The difference in consumer decision-making styles between the university students of New Delhi and Bhubaneswar has been investigated through testing the means by independent sample t-test through the software SPSS-19. The result of the hypothesis testing shows that there is no significant difference in the decision making styles between the university students of New Delhi & Bhubaneswar.

### **Conclusion**

An empirical study has been carried out for profiling the consumer decision-making styles among university students of Bhubaneswar and New Delhi and to find out the difference in decision-making styles between the university students of Bhubaneswar and New Delhi. The instrument is adapted to find out the decision-making styles among university students are according to the Consumer Style Inventory (CSI) developed by Sproles & Kendall (1986). The original 40 items based CSI scale is not fully applicable at Indian environment as it has been found out that the factors immerged in exploratory factor analysis are not exactly same as the 8 factors of Sproles and Kendall (1986) study. There are seven factors emerged in this study and they are “*Recreation & Fashion Conscious*”, “*Health/hygiene & brand conscious*”, “*Store/Brand loyal*”, “*Safety & Environment Conscious*”, “*High Quality Conscious*” “*Impulsive & Price/Value Conscious*” , “*Confused by Overchoice*”. The factors emerged are combination of the seven factors originally immerged in study of Sproles & Kendall (1986). The only factor “Confused by Over choice” of original 8 factor of Sproles and Kendall (1986) has not confirmed in this study as the variables under this factor were excluded from the questionnaire due to non-conformity in our pilot study. So the applicability of the original 40 items based CSI in Indian context is not fully confirmed without

modification, and addition/deletion of some variables as suitable for the Indian context which is also suggested by the previous studies. Two factors “safety and environment conscious” and “health/hygiene & brand conscious” are emerged as the students are now a days showing their concerns towards health/hygiene, environment and safety. When it comes to the decision-making styles among students of different city environment it has been found out that that there is no significant difference in the decision making styles between the university students of New Delhi & Bhubaneswar. It may be due to small sample size.

As India is emerging as a economically developing country with all the attentions of the world on India due to the demographic dividend which India possesses are young population of age below 30. The Indian market scenario is having a vast consumer base of young population and the targeted segment is youth particularly the university students. The study about the behaviours of the young population and their decision-making style definitely help the marketer to build their marketing strategies and offer the correct products to the young population as per their requirement.

In this study the differences in consumer decision making styles on gender basis and also city basis and that to two cities only are addressed upon. Further study can be taken on impact of psychological variables on consumer decision making styles and also the study can be carried out considering the students from rural and urban regions of India. Other factors like income, family back ground, peer-influence and their impact on consumer decision-making style can be also researched upon and a robust consumer decision-making style scale can be developed suitable for Indian context which can help in better understanding the Indian consumers specially the young consumers of India.

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