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Clustering E-Shoppers on the Basis of Shopping Values and Web Characteristics

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ABSTRACT

This article describes how the exponential growth of e-commerce in India and the presence of many national and multinational e-retailers has set the trend for the major overhaul of the online industry. Most of the e-retailers have failed to differentiate themselves from the competitors. This has resulted in their failure to attract and retain the right set of consumers for their respective businesses. The present paper is aimed at identifying and developing the typology of online shoppers based on importance given by them to shopping values and web portal features. The data collected was analysed using factor, cluster and correspondence analyses. The article identifies four types of online shoppers – 'Information Seekers,' 'Utility Seekers,' 'Value Seekers' and 'Core Shoppers.' Each of these four segments display significant differences and this information can be strategically used by web retailers in targeting their markets effectively.

KEYWORDS

Cluster Analysis, Correspondence Analysis, Online Market Segmentation, Site Characteristics, Utility Seekers, Value Seekers

INTRODUCTION

An online market place is an entity where information regarding product or service is provided by a third-party seller followed by the execution by the operator of the market place. Commonly known as electronic commerce websites, these provide a convenient option for vendors to sell products or services without having a physical store. Electronic commerce (or e-commerce) has been defined as commercial transactions that occur between buyer and sellers over the internet while enabling new economic and business practices. The rapid emergence and acceptance of e-commerce has changed the structure and environment of businesses conducted in today's world. With the current GDP of India constituting at over US $2.48 trillion, and growing steadily at 7.49%, the Indian economy is pegged to

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be the fastest growing economy in the world (Economy Watch, 2017). With such high growth, online market places are expected to increase in number. Online retailing in India is estimated to grow from US $30 billion in 2016 to reach US $100 billion by the end of 2020 (IBEF, 2017). Positing several reasons for the rapid emergence of online market places in India, Gehrt (2012) attributed the rise of the Indian economy, purchasing power parity, large number of college students, and growth in telecom sector coupled with higher internet penetration in the country as major influencers. Ravichandran (2009) observed that the economic crisis of 2008 forced more people to compare prices with different retailers giving prominence to the online market places. In India, there exists a plethora of online market places, like Flipkart, Amazon, Snapdeal, Paytm, etc. Flipkart leads the pack with 44% market share, followed by Amazon at approximately 31% and Snapdeal 14% (Economic Times, 2017).

The exponential growth of e-commerce in India, coupled with vastness of the market, motivated the researchers to identify various online shoppers' segments on the basis of pertinent shopping values and web characteristics that have influence on the website selection. It has been anticipated that India would be in the top 10 e-commerce destinations in the world, but the online firms are posed with plenty of challenges (Vyas & Gupta, 2017). Despite the exponential growth of online retailing in India, not much research has been undertaken to understand and identify the online shopper segments in India (Gehrt et al., 2012). In the preliminary study, Gehrt et al. (2012) observed the presence of three segments: 'value singularity,' 'quality at any price' and 'reputation/recreation' on the basis of key shopping orientation themes and web site dimensions. A study by Pandey et al. (2015) on online shopping lifestyles in India identified three shopping segments, 'mature traditionalists,' 'offer enthusiasts' and 'technology mavericks,' and it concluded that internet self-inefficacy impacts mature buyers. It also observed that the offer-seeking shoppers, comprising mostly of students from lower age group, do not enjoy the convenience of online shopping. The major limitation of this study was the usage of parameters defined for American lifestyles in Indian context.

Studies have also been undertaken to identify consumers and firms' preferences in using internet marketing channels (e.g. Khatwani & Srivastava, 2015; Khatwani & Srivastava, 2017). A study in the Indian context by Prashar et al. (2017a) has noted that nearly sixty-four percent of variance in web satisfaction is explained by motivations based on shopping values and website characteristics. These motivations form an important dimension for online shoppers and can be used as basis for segmenting the shoppers. However, the earlier studies have not segmented shoppers on the basis of these motivations. Hence, the present paper is pioneer in classifying online shoppers as per their attitude towards shopping values and site features. It further explored the association, if any, between income groups and the identified segments using correspondence analysis. The paper is sequenced in the following manner. The next section details the research background and incorporates extensive review of literature. This is followed by discussion on research methodology that includes the process of data collection. Data analyses using factor, cluster and correspondence analysis is available thereafter. The final section contains discussion of findings, implications and limitations of the study.

RESEARCH BACKGROUND

Online Market Segmentation

Segmentation is the procedure of categorizing and dividing individuals into homogeneous groups that have related features and/or display similar behavior, which would help marketers in developing strategies for fulfilling the segment's precise needs (Blackwell et al., 2001). Similar to the process of segmenting offline shoppers, many of the web related elements like portal's response time, transaction time, shopper convenience etc., have been used to categorize e-shoppers (Pandey et al., 2015). Nevertheless, it has been observed that shoppers' opinion about convenience differs across groups (Kaufman-Scarborough & Lindquist, 2002). Few of the consumers evidently prefer to buy in offline stores, whereas many others feel that switching between online and offline mode is highly convenient.

The extant literature has many studies that have attempted to examine the underlying similarity among shoppers and segment them in homogeneous groups (e.g. Aljukhadar & Senecal, 2011; Bhatnagar & Ghose, 2004; Ganesh et al., 2010; Pandey et al., 2015; Prashar et al., 2016; Soopramanien & Robertson, 2007; Ye et al., 2011). These studies have used internet usage patterns, internet self-efficacy, perceived benefits, perceived risks, website selection factors, lifestyle differences, etc. But none of the earlier studies have attempted to segment the online shoppers on the basis of motives they seek with respect to shopping values and website characteristics. To fill this gap, the present study attempts to segment online shoppers based on their perception towards these predictor elements.

Shopping Values

Several researches have noted that both hedonic and utilitarian values are responsible for determining the consumption pattern (e.g., Babin et al., 1994; Sorce et al., 2005; Sebastianelli et al., 2008; Kim & Eastin 2011). Hedonic values have become an integral part of the buying process. First acknowledged by Holbrook and Hirschman during the study on sensory stimulation and pleasure in the buying process, hedonic shopping value (HSV) depicts the amount of entertainment and emotions one derives from shopping and can be specified by the augmented arousal, participation, perceived freedom, distraction, fantasy, and sensitive aspects of any shopping experience (Babin et al., 1994; Sorce et al., 2005). Hedonic consumption is characterised by fantasies, feeling and fun (Holbrook & Hirschman, 1982). On the other hand, utilitarian consumption takes place when a shopping tour is able to achieve a certain need, and reflects a certain, reasoning, and non-emotional outcome (Babin et al., 1994). As consumers' demands have changed over time, frameworks used in capturing of shopping experiences have also shifted. Fiore and Kim (2007) proposed a shopping experience framework based on stimulus-organism-response in accordance with the shift. In their study on characteristics of retail stores that have differential impact on shopping values, Ottar et al. (2011) concluded that utilitarian shopping value is positively associated with merchandise collection and physical characteristics of the store. The researchers also observed the negative impact of store features on hedonic shopping values, and salespersons interactions was negatively related to utilitarian shopping values.

Lim (2014) examined the impact of online flow (i.e. arrangement of elements in a website) on hedonic and utilitarian shopping. The authors posited that arousal, challenge, telepresence, and time distortion have been linked to hedonism, whereas control, importance, interactivity (speed) and skill have been linked with utilitarianism. Also, in a promotional context, hedonic premiums are preferred over utilitarian premiums, with any other characteristics of premium being the same (Palazon & Delgado-Ballester, 2013). When affective or cognitive reactions are incited, an inclination towards hedonic or utilitarian is more likely to arise.

Hedonic online shoppers tend to look for special experiences taking into account their capacity to upgrade the joy and amusement of online shopping (Wolfinbarger & Gilly, 2001; To et al., 2007; Prashar et al., 2017a). In comparison, utilitarian online shoppers concentrate on the practical functions for the online encounters, like product quality, price, ease of use, and other shopping related elements (Sorce et al., 2005, Vijay et al., 2017a, Vijay et al., 2017b). Studies on online shopping have found that shopping inspirations like hedonic and utilitarian quality can influence shoppers' states of mind about online shopping (e.g., Childers et al., 2002; Chiou & Ting, 2011). Ajzen (1991) stated that attitude while shopping also contains a reasoning factor. Spangenberg et al. (1997) suggested that hedonic worth was experienced on cognitive levels, while the utilitarian part is ruled by the cognitive component.

Yuksel (2007) demonstrated that utilitarian shopping esteem impacts shoppers' practices, in spite of the fact that the impact is weaker than that of hedonic value. According to Kim et al. (2014), buyers' individual contrasts in their online shopping encounters impact their apparent shopping worth and shopping cost with regards to online shopping.

Web Informativeness, Effectiveness and Entertainment

Usability is an important requirement for effectiveness and success of online shopping websites. Besides facilitating and achieving customer satisfaction and increases reliability, it also helps in better and easier navigation through the website (Mario et al., 2007). Enrique et al. (2008) posited that pre-purchase online information influences future shopping intentions directly and positively. Richard et al. (2010) showed that enjoyment or pleasure from a web portal can be an important dimension of online shopping experience. Buyers with positive information and convenience attitudes towards e-commerce had higher online purchase intention (Patricia, 2006). Similarly, Gao et al. (2014) posited that there are three components related to web atmospherics – informativeness, effectiveness and entertainment, that influence shoppers' intention to purchase a product and satisfaction received in the process. Using a website, whether a consumer perceives it to be challenging or not depends on the level of information correctness, significance, appropriateness, comprehensiveness, and convenience. A study by Vijay et al. (2017b) also noted positive and significant influence of these three factors on shoppers' satisfaction. Kim et al. (2009) observed a positive effect of product presentation on shoppers' emotional and cognitive states.

Thus, we can conclude that factors influencing shopping can be either intrinsic or extrinsic in nature. Hedonic and utilitarian values that are intrinsic in nature indicate the reasons of pleasure, being at ease and deriving utility, whereas web atmospherics, which is extrinsic in nature, is associated with characteristics of the shopping website.

RESEARCH METHODOLOGY

The study was carried out in two stages. The first stage encompassed examining of the present work on online market segmentation and various factors that influence online shopper's behaviour. After going through the literature and keeping the objective of the study in focus, five different constructs that were associated with shopping values and web portal features, were identified. The construct 'shopping value' had two elements – hedonic and utilitarian shopping value, whereas, the construct for 'web portal characteristics' consisted of web entertainment, web informativeness, and effectiveness of information content. On the whole, twenty items for the five factors were identified. These twenty items were converted into statements and were incorporated in a questionnaire, which was used for data collection. To ensure the validity of the items, all these statements were taken from earlier validated studies. A seven point 'Disagree-Agree' Likert scale was used for measuring responses, where 1 represented "Strongly disagree," and 7 represented "Strongly agree." Before proceeding with data collection, the survey instrument was pilot tested with thirty-five students pursuing their doctoral degree in Management. Requisite changes were made as per the suggestions and the scale was found to give valid and reliable output.

The second stage of the research consisted of collecting data using the instrument, which also had questions about respondents' age, gender, marital status, education level, occupation, family's monthly income, and frequency of visiting online retailer per month. The present study used a cross sectional design with the idea that the sample units represent the population. The Indian online shoppers of eighteen years and above age were eligible for participation in the research. The sampling extent was defined as those shoppers who had at least bought three times in the last six months from any of the online stores. The data was collected from three major Indian cities of Delhi, Mumbai and Bengaluru. A total of 410 respondents participated and filled the survey. After eliminating the erroneously/incompletely filled questionnaires, the researchers were left with 319 data points that were used for data analysis.

DATA ANALYSIS AND INTERPRETATION

Three techniques were used for data analysis. Initially, the data was subjected to exploratory factor analysis. This was undertaken to ratify the existing factor structure. The second stage involved cluster analysis to segment the shoppers into homogenous groups. Finally, correspondence analysis was used to identify association between income levels and segment of shoppers.

Factor Analysis

The twenty items were subjected to exploratory factor analysis for confirming the factor structure. Five factors were recognized and this solution explained 72% of the total variance. The value of Bartlett's test of Sphericity (=3837.880) and sampling adequacy, as explained by KMO test (=.909), confirmed the suitability for factor analysis. Cronbach alpha values for the five factors were found to be greater than 0.65. Hence, the scales used for the study can be considered as reliable. These five factors were related to hopping values and website characteristics. As shown in Table 1, factors were named according to

Table 1. Factor analysis

Items	Factor Loading (n = 319)	Cronbach Alpha (α)	% Variance
Factor 1 - Web Entertainment			
Fun derived from browsing the website	0.70	0.90	41.44%
Excitement while browsing the website	0.80		
Imaginativeness of the website	0.72		
Entertainment during browsing of website	0.85		
Attractiveness of the website	0.79		
Factor 2 - Web Informativeness			
Informativeness of the website	0.70	0.88	11.18%
Resourcefulness of the website	0.83		
Usefulness of the website	0.73		
Knowledgeability of the website	0.79		
Factor 3 - Effectiveness of Information Content			
Accuracy of information on the website	0.74	0.88	7.37%
Recentness of information on the website	0.84		
Completeness of information on the website	0.82		
Relevance of information on the website	0.73		
Factor 4 - Hedonic Shopping Values			
Excitement of online shopping	0.66	0.82	6.38%
Enjoyment during online shopping	0.80		
Enjoyment during online shopping as compared to other activities	0.82		
Desire to continue shopping	0.70		
Factor 5 - Utilitarian Shopping Values			
Search for only the required items	0.81	0.68	5.64%
Buying the needed items	0.64		
Sense of accomplishment on shopping trip	0.73		

items comprising each of them. These factors are – 'web entertainment,' comprising five items that pivoted around fun and excitement; 'web informativeness' with four items related to informativeness and resourcefulness; 'effectiveness of information content' having four variables focusing on accuracy; 'hedonic shopping values' with four elements related to pleasure of shopping; and finally, 'utilitarian shopping values' with focus on usefulness and utility in the process of buying goods:

- **Web Entertainment (WE):** This set of variables explaining 41.44% of the net variance, comprised of five items – fun, excitement and entertainment while browsing the website, and imaginativeness and attractiveness of the website. Since all these factors revolve around the entertainment derived from browsing the website, and hence is termed as web entertainment;
- **Web Informativeness (WI):** Explaining 11.18% of the net variance, this factor consists of the four variables: informativeness, resourcefulness, usefulness, and knowledgeability of the website. These items contribute to the information available on the preferred shopping website, therefore titled as web informativeness;
- **Effectiveness of Information Content (EIC):** Items in this factor focussed on the effectiveness of information available on the web portal which is used by online shoppers. The items were: accuracy, recentness, completeness and relevance of information on the website. This factor explained 7.37% of the total variance;
- **Hedonic Shopping Values (HSV):** Items in this factor explain hedonistic values associated with online shopping. With focus on pleasure derived from the shopping experience, the factor comprised of four items: excitement of online shopping, enjoyment during online shopping, enjoyment during online shopping as compared to other activities, and desire to continue shopping. 6.38% of the net variance was explained by this factor;
- **Utilitarian Shopping Values (USV):** The fifth factor comprised of three items: searching for only the required items, buying the needed items and sense of accomplishment on a shopping trip. These items relate to utility of online shopping and this factor explained 5.64% of the total variance.

Cluster Analysis

Cluster Analysis is a technique that can be used to group respondents, such that each of the groups are as homogenous as possible within, and at the same time, as heterogeneous as possible with respect to the other groups (Hair et al., 2010). Factor scores were identified for each of the respondents based on the five factors that characterise the shopping values and website characteristics.

Hierarchical cluster analysis, using Ward's method, was conducted, followed by k-means analysis. K-means clustering technique requires the researcher to specify the number of clusters needed in the solution. The dendogram obtained from hierarchical clustering suggested that could be four clusters in the dataset. Analysis was continued using the non-hierarchical clustering technique (k-means clustering), where the solution (number of clusters) obtained earlier is taken as the input (k), to obtain the final cluster solution. As the hierarchical technique has shown four clusters, clustering was conducted for obtaining four-clustered solution.

The respondents were segmented using Non-hierarchical (k-means) cluster analysis, on the basis of the five factors that have been identified. After examining the output of various levels of clusters and the distances between them, a four-cluster model was concluded, because of clear interpretability of the solution. F value for each cluster indicates that there is a significant difference among all the clusters on all five factors (Lockshin et al., 1997; Orth et al., 2004).

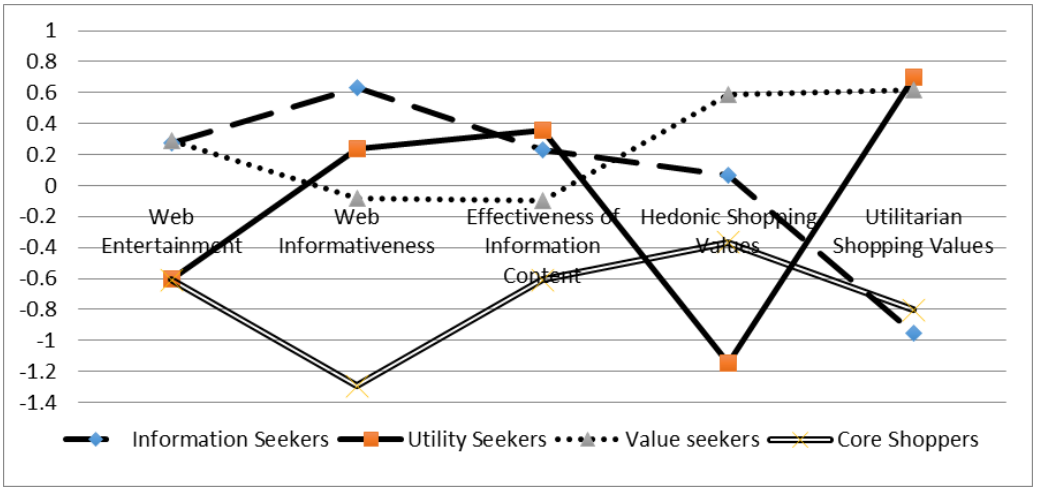
Table 2 shows the solution of cluster analysis. Similarly, Figure 1 represents the clusters formed.

The demographic description (gender, age, marital status, education level, occupation, family income per month) and frequency of visiting websites per month of the various segments under consideration is shown in Table 3.

Table 2. Non-hierarchical cluster analysis

Website Characteristics and Shopping Values	Cluster Means				F-Value	P <
	Cluster 1	Cluster 2	Cluster 3	Cluster 4		
	Information Seekers	Utility Seekers	Value seekers	Core Shoppers		
Web Entertainment	0.27794	-0.60223	0.28960	-0.61088	21.998	0.000
Web Informativeness	0.62871	0.23558	-0.08175	-1.29354	58.762	0.000
Effectiveness of Information Content	0.22859	0.35482	-0.10050	-0.60835	10.830	0.000
Hedonic Shopping Values	0.06415	-1.14508	0.58969	-0.36547	68.879	0.000
Utilitarian Shopping Values	-0.95117	0.70183	0.61893	-0.80318	148.218	0.000
Cluster Size	88	57	129	45		
Number of respondents (%)	28%	18%	40%	14%		

Figure 1. Profile of clusters



Interpretation and Description of Cluster Segments

The segments arrived through clustering were explained based on the centroid value of the five factors. A positive value of the centroid shows the significance of the nature of the cluster, whereas a zero value determines that the position is neutral. A negative value of the centroid shows that the factor is not of significance to the respondents within each of the cluster. Following is the description of the clusters.

Information Seekers

With 28% of the total respondents, the first cluster has positive centroid on four out the five factors. These factors are – web informativeness (0.62871), web entertainment (0.27794), effectiveness of information content (0.22859) and hedonic shopping values (0.06415). Thus, all the three information related factors had positive centroid values, while hedonic shopping value had the weakest centroid value. Utilitarian shopping value posted a negative centroid in this cluster. Accordingly,

Table 3. Cluster composition

		Full Sample	Information Seekers	Utility Seekers	Value Seekers	Core Shoppers
			Cluster 1	Cluster 2	Cluster 3	Cluster 4
Gender	Male	64.9%	71.6%	70.2%	65.9%	42.2%
	Female	35.1%	28.4%	29.8%	34.1%	57.8%
Age (years)	Under 21	2.5%	4.5%	1.8%	1.6%	2.2%
	21-30	89.7%	92.0%	91.2%	88.4%	86.7%
	30-40	7.2%	2.3%	7.0%	9.3%	11.1%
	40-50	0.3%	--	--	0.80%	--
	Above 50	0.3%	1.1%	--	--	--
Marital Status	Unmarried	88.1%	92.0%	94.7%	85.3%	80.0%
	Married	11.9%	8.0%	5.3%	14.7%	20.0%
Education Level	Schooling	0.6%	--	--	1.6%	--
	Graduation	40.1%	51.1%	40.4%	31.8%	42.2%
	Post-graduation	52.4%	44.3%	52.6%	57.4%	53.3%
	Professional qualification	6.9%	4.5%	7.0%	9.3%	4.4%
Occupation	Student	69.0%	77.3%	70.2%	64.3%	64.4%
	Service	23.8%	18.2%	21.1%	25.6%	33.3%
	Self-employed	4.1%	3.4%	7.0%	3.9%	2.2%
	Homemaker	1.3%	--	--	3.1%	--
	Others	1.9%	1.1%	1.8%	3.1%	--
Family income per month (INR)	< 10000	3.1%	2.3%	3.5%	3.3%	4.4%
	10,001 - 25,000	10.4%	15.9%	5.3%	10.3%	6.7%
	25,001 - 40,000	24.3%	20.5%	29.8%	22.7%	28.9%
	> 40,000	62.2%	61.4%	61.4%	63.6%	60.0%
Frequency of visiting website per month	1 time	14.7%	11.4%	22.8%	5.0%	40.0%
	2 - 5 times	58.3%	52.3%	64.9%	62.0%	51.1%
	6 - 10 times	15.0%	14.8%	8.8%	21.0%	6.7%
	> 10 times	11.9%	21.6%	3.5%	11.6%	2.2%

informativeness, resourcefulness, usefulness and knowledgeability of information available on e-commerce sites play a very important role for such users. Dominated by males (71.6%), two-third respondents in this clusters reported more than six visits per month.

Utility Seekers

The second cluster has positive centroid on utilitarian shopping values which had the highest value of 0.70183, followed by effectiveness of information content (0.35482), and web informativeness (0.23558). Consisting of 18% of the sample, these shoppers give importance to the utility derived from shopping online. The sense of accomplishment derived from online shopping as well as the shopping for the exact needed items play an important role for such buyers. The cluster has highest

percentage of unmarried people and eighty-seven percent of the cluster members visited online sites less than five sites.

Value Seekers

Two-fifth of the respondents belong to this cluster. It has positive centroid values for both the shopping values - utilitarian (0.61893) and hedonic (0.58969), and web entertainment (0.28960). Thus, these shoppers seek satisfaction from both these values and are less persuaded by the information content. E-shoppers draw fun, enjoyment and excitement in accomplishing the desired goals of the shopping trip. More than two-third of these respondents had post-graduation and other professional qualifications.

Core Shoppers

This market segment has negative centroid values on all the five factors indicating indifference to predictors of web portal selection. Consisting of least number of respondents (14%), this segment may be considered as 'zone of indifference.' For marketers, it would be difficult to attract using marketing stimuli extending hedonic or utilitarian shopping values and aligning information characteristics with this segment. Forty percent of the respondents reported that they visit e-commerce portals only once a month. It may be presumed that these shoppers may enjoy shopping offline through brick and mortar stores as against online shopping. Fifty-seven percent of the respondents in this cluster were females.

Correspondence Analysis

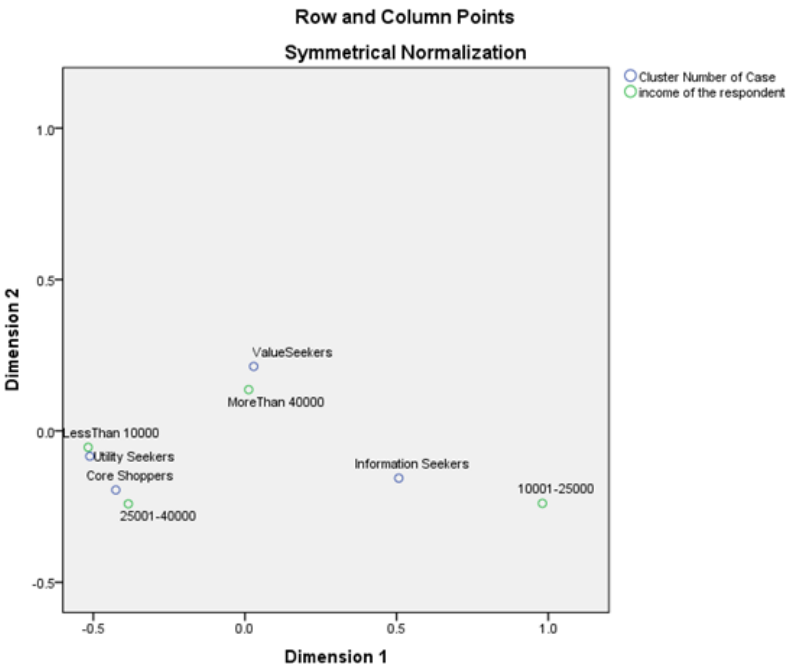
Identifying and profiling homogenous segments of shoppers is a necessary condition for developing appropriate strategies, but it may not be a sufficient condition. Cluster analysis must be accompanied with further analysis to develop pertinent strategies. The present study has used correspondence analysis to develop insights about the segments that have been identified. This technique is used to analyze and establish relationship between objects and/or variables, which are plotted on a same map on the basis of their association (Hair et al. 2010). In the present case, correspondence analysis has been used to determine a relationship between the four clusters generated and monthly family income. Figure 2 shows the corresponding association between four clusters and income levels.

The first two dimensions explained approximately 75% of the total variance. Dimension 1, explaining around 50% of the variance, is defined between 'information seekers' at one extreme and 'utility seekers' cluster at the other. This dimension represents the level of need for online shopping. Similarly, the 'value seeker' cluster at one extreme and 'core shoppers' at the other extreme describe dimension 2, which explains 25% of the variance.

The closer a cluster is to the income level on the graph, the stronger is the perceived identification of that income level with that cluster. Figure 2 shows that shoppers from the income group less than INR 10000 are located close to segment of utility seekers. Low income respondents are usually focused on seeking the products on the web portals that they exactly need and refrain from buying anything that is not needed. Hence, ability to buy the desired products on the web portal provides them with sense of accomplishment. On the other hand, shoppers in the income level of INR 10001-25000 are in the information seekers' segment. These shoppers are frequent visitors of online web portals and are likely to seek new information about various products and offers.

Shoppers with the income group INR 25001-40000 are close to cluster of core shoppers and were found to be less inclined towards any feature of website or any shopping value. Since, more than ninety percent of these shoppers visit web portals with a frequency lesser than other segments, it is assumed that this segment shall prefer offline formats of retail. Finally, the respondents in the highest income group had affinity to be the value seekers. Not only they value usefulness and pertinence of information on web portals, but they also drive fun, pleasure, excitement and enjoyment while shopping and comparing products online.

Figure 2. Correspondence analysis



DISCUSSION

On the basis of predictors of online shopping values and website characteristics, the present study has identified and profiled four significantly diverse clusters – information seekers, utility seekers, value seekers, and core shoppers. Also, with the help of correspondence analysis, it was observed that the four segments were found to be associated with different income groups. The findings of the paper support the idea of using internet as a tool (Vila et al., 2018) for clustering shoppers' based on their shopping motivations.

The characteristic traits of 'value seekers' are similar to the category of discerning shoppers, as has been named and profiled by an earlier study by Jayawardhena et al. (2007), which has grouped shoppers into five different segments - active shoppers, price sensitives, discerning shoppers, brand loyal and convenience oriented. Another study, Mathew (2016) has observed that the online users in India can be segmented into three categories on the basis of attitude – those who comprehend the benefits of online shopping; those who prefer offline mode of shopping; and those who are afraid of shopping online. The second category of users from Mathew's study can be related to 'core shoppers' of the present study who do not frequently visit e-commerce portals and thus might prefer offline shopping. Similarly, the cluster of 'core shoppers' identified in this paper was similar to the cluster of 'indifferent shoppers' identified in a recent study by Prashar et al. (2017b).

Reference this research, it is extremely important for online retailers, marketers and web developers to select a specific shoppers' segment(s) that they propose to target. Based upon these, appropriate marketing strategies must be created. From the distinctiveness of the segments arrived, it is observed that different shopping values and web characteristics influence different groups of online shoppers. Some of the shoppers undertake e-shopping owing to its convenience and utility, while many others rely on e-commerce for searching information about products and offers. Similarly, some segments use online shopping as means to derive pleasure and fun, while other segments are not interested in it.

Information seekers are the ones who are attracted to web portals that provide/display reliable information about products/services, and are not interested much into entertainment provided by online shopping. Portals targeting this group can centre their web elements around the theme 'reliability and ease of searching items.' Ensuring accurate images, product specifications and ease of searching the informational cues shall help portals attract such segment and gain loyalty of the same. Students form a large component of the utility seekers, as they focus aggressively on gaining value from online shopping. Portals targeting this segment must focus on offering utilitarian value to such shoppers either by increasing utility of portals or by decreasing prices by offering promotional discounts. Web portals with vast option of products to choose from shall attract such shoppers and help them in closing their shopping trip in one instance.

Value seekers get excited by the monetary and functional benefits of online shopping as well as by the fun they derive while browsing through online portals. They can be targeted with portals which are fun to browse and navigate, and stock the latest gadgets and trendiest items offered at heavy discounts. Enhancing user experience and features like embedded videos, three-dimensional view of items, chat mechanisms and interactivity with and among customers will help attract more users and increased patronization of the segment. Core shoppers generally do not get influenced by either the shopping factors or the web factors. Traditional (offline) retailers must target this segment as these shoppers would prefer shopping offline than online. The retailers can position their stores as the one that provides an 'experience,' which cannot be offered by online portals and offer a different value proposition to consumers. Alternatively, online retailers may enter into brick and mortar format too, albeit on limited basis. This will cater to the needs of such shoppers of experiencing in-person the products and getting solicited by sales personnel at such stores.

CONCLUSION AND MANAGERIAL RECOMMENDATIONS

The results of this study posit the existence of at least three segments of online shoppers on the basis of varied shopping values and characteristics of the web portals. Fourth segment named 'core shoppers' emerged to be in 'zone of indifference,' as the antecedent factors did not show a positive association. It is clearly visible that online shoppers' attitude differs across the four segments. These segments should be catered to with appropriate marketing strategies. This study is of great significance for online retailers and marketers as the online buyers' market has been segmented using two most critical predictors – shopping values (hedonic and utilitarian) and website characteristics (informativeness, effectiveness and entertainment). Unlike this, earlier studies have used factors like internet usage patterns, internet self-efficacy, perceived benefits, perceived risks, website selection factors, lifestyle differences.

For new e-retailers, the study results can aid in identifying market segments. Marketers can use the segments identified to position their web portals and decide on the marketing strategies accordingly. Illustratively, the e-retailer targeting the first segment of 'information seekers,' must create its brand position around informativeness quotient of web portals. The value proposition must be focussed to provide resourceful, useful and informative details regarding products, offers and desired functional aspects of the website. Effectiveness of information content and entertainment components form support factors for the cluster, and due attention should be given to attractiveness, excitement, accuracy and completeness defining web elements in the portal. The market player seeking to target the segment that has largest number of online buyers must focus on 'value seekers,' which had forty percent of the survey respondents. In this case, e-retailers should attempt to satiate both utilitarian and hedonic shopping values of online shoppers. Buyers' in this segment place lot of emphasis on utilitarian shopping values and achieve a sense of satisfaction by accomplishing the task of shopping their required products through the online shopping portal. Hence, marketers would have to focus on providing hassle-free experience and emphasize on meeting the customer's exact requirements. Brand positioning around quick and convenient shopping experience through superior

search mechanisms and easy checkouts must be cemented. Besides utility, these shoppers also want a sense of fun, enjoyment, etc., through the e-shopping experience. E-retailers should incorporate the elements related to hedonism while providing utility through e-portals. Hence, ensuring a good blend of both utilitarian and hedonic values in their websites forms the key strategy for such marketers. To cater to the segment of utility seekers, e-retailers must provide elements that help shoppers derive utility while shopping online. As these shoppers usually seek and buy the required (planned) items only, such marketers must provide suitable navigation system within the site. The navigability must ensure proper data sorting capabilities of the website, leading to ease and convenience of locating, comparing and carting the products. Appropriate and simple categorization of the products is essential requirement for this. These shoppers are usually indifferent to fun and entertainment cues embedded in the online sites. Promotional messages for this segment must focus on the utility aspect of the websites.

The smallest segment identified in this study has been named as 'core shoppers,' who primarily do not have affinity for online shopping. Dominated by female shoppers, the members of this segment presumably enjoy physical shopping as against the virtual online shopping. They are unattached to all the predictive elements of a web portal. Since, the consumers of this cluster display unique attitude, e-retailers must attract those using non-conventional marketing techniques. Online retailers must provide such shoppers with the choice of hybrid shopping experience – encompassing the experience of online as well as traditional offline shopping. Finally, considering the results of corresponding analysis, it is imperative for the retailers to create multiple and exclusive web portals, should they seek to cater to economically diverse segments. In the long run, efforts may be made to graduate shoppers from utility seekers cluster to the segments of information seeker and value seeker.

LIMITATIONS AND FUTURE SCOPE

Like any other cross-sectional study, this research also has few limitations. Understanding of such limitations may build the basis for future research. The data was collected from Indian online shoppers, which is one of the largest growing markets in the world. Hence, any generalization for online shoppers in entirety is constrained. With the ease of access to internet, larger sections from other age groups would also shop online. Therefore, further studies must incorporate data from other demographic segments also. This study being cross-sectional in nature, time factor could have dynamically changed the nature of response. Moreover, the design of preferred website and the choice of website itself is dynamic in nature. Hence a longitudinal study could be conducted to examine the inference of such factors. Future studies can be carried out using experimental design to further validate the findings. This will help in eliminating the possibility of errors owing to self-response bias. Future studies can also focus on looking at the advertising on social media to see if any of the consumers are being influenced to shop online in one platform over another would also be interesting. Studies can cluster shoppers based on the promotions they are being attracted to on various online media.

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