An Analytical Study on E-Commerce and Purchase behavior of rural customers in Digital era

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Abstract

Purpose -The purpose of this paper is to study the concept of E- commerce and the purchase behavior of rural customers in the Digital era. E-commerce is sale of goods and services through the Internet. Electronic retailing, or e-tailing, can include business-to-business and business-toconsumer sales. E-commerce is a growing area of technology establishing a store on the Internet, allows for retailers to expand their market and reach out to consumers who may not otherwise visit the physical store. The convenience of online shopping is the main attraction for the consumers. Unique online payment systems offer easy and safe purchasing from other individuals. Electronic consumer's exhibit different buying behaviors such as; cart abandonment. The benefits of shopping online also come with potential risks and dangers that consumers must be aware of. In the future, we can expect online stores to improve their technology tremendously, allowing for an easier and a more realistic shopping experience. The present study identified different online retailing techniques cues that could possibly influence the purchase decision of youth in such a scenario. A structured questionnaire was developed to understand the buyer behavior. This was made by dividing the sample into clusters. The aim was to understand if the objects in the same cluster tend to have more similarity than that of objects in the alternate cluster. The study comprises of an exploratory design that includes thorough review of literature. Primary data was collected through a structured questionnaire. In the analysis it was found that E-commerce has high impact on young consumers' purchase patterns. Thereby creating abundant pressure on the positioning strategies that are to be created by the retailers, manufactures, franchisor and website owners.

Keywords: E - commerce, rural markets, digital, marketing.

Background of the study E-commerce is more accessible than it has ever been in the digital era with the introduction of tablets, smart phones, easy checkout systems and more secure systems. As a result, the ecommerce industry is generating higher sales volume. According to Research, the online retail sales volume for the US 2012 is $231 billion. This figure is predicted to grow continually to $370 billion in 2017. Forrester also reports that 53% of people in the US shopped online in 2011 and it is predicted to grow to 58% in 2017. It reminds people to buy by attractively presenting products or services at a critical juncture in the buying process. Here the philosophy

"Consumer is the King" has to be the guiding force. The Indian youth now demands state of the art service, global standard of the product, and international level of shopping experience. In view of this trend the E-tailing and purchase behavior of rural youth in India, is fast emerging and crucial thing. Hence the study focuses on dimensions of E-commerce and the customer behavior in terms of rural markets.

India is a country wherein, a substantial percentage of the population resides in the rural markets. This is the market that holds abundant potential on one hand and has extremely high levels of youth unemployed on the other hand. Exposure to

Social media is to an extent responsible for the amount of awareness, though limited, that these rural customers have on various brands they want to buy. Lack of proper

Education is the sole reason why rural consumers are generally ignorant and highly unorganized. There are many brands that are either duplicated or aped and sold out to the customer in the rural markets. Scope E-commerce is selling of goods and services via electronic media to facilitate exchange of detailed information between buyers and sellers. Online shopping has become an integral part of business. Online shopping refers to the shopping behavior of consumer in an online store or a website used for online purchasing purpose (Monsuwe et al. 2004). The Indian e- commerce market is estimated to be Rs. 50,000 crore, witnessing a rapid growth rate and has increased by 500% since 2007. With the advent of 21st century, the world has entered in an "e-generation" era. Internet technologies have revolutionized communication across the world and transformed the world into a global village. According to internet world stats India stood at the 3rd rank with 137 million users till June 30, 2012 (source: www.internet worldstats.com). A large body of research is available on the online shopping in the world. However, there is still a need for closer examination on the online shopping as it is still at the early stage of development in India, little is known about the con-

sumers' attitude towards adopting this new shopping channel and the factors that influence their attitude (Aque, Sadeghzadeh, & Khatibi, 2006). The consumers' attitude towards online shopping is known as the main factors that affects e-shopping potential (Shwu-Ing, 2003). Therefore, understanding consumer attitudes towards e-shopping helps marketing managers to foresee the eshopping rate and assess the future expansion of online commerce. In this paper extended technology acceptance model (TAM Davis, 1989) is used to understand the variables that affect online shopping. Technology acceptance model is a foundation for examination of customers approval of online shopping (Stoel and Ha, 2009). Perceived ease of use (PEOU) and perceived usefulness (PU) are the two external variables of TAM (Davis , 1989).In this paper technology acceptance model is extended by accumulating perceived enjoyment (PE) and Perceived risk(PR) as a 3rd and 4th external variables that affects online shopping intention. Perceived usefulness is the perception of an individual that usage of new system will help her /him to achieve gains in their work performance. Perceived ease of use is the perception of an individual that it requires no cost or effort in the adoption of new system or technology. Perceived enjoyment is the individual perception that by adopting new system or technology he/she will have pleasure. Perceived risk is that level

of risk a consumer believes exists regarding the purchase of a specific product from a specific retailer, whether or not that belief is actually correct. This paper reveals that PE, PU, PEOU and PR significantly affect online shopping behavior of consumers.

Design/methodology/approach-The paper takes the form of an exploratory design that includes ;review of literature, and survey method. Findings -E-commerce has a great impact on youth in the rural markets. Considering the consumers' purchase patterns, the retailers, manufacturers, franchisor and website owners need to have a re look at the positioning strategies for designing effective design and visual effects. Originality/value– This is one of the research paper covering both the aspects of E- commerce well as the purchase behavior of the rural customers in the Digital era. The study attempted to contextualize both the aspects with the perspective of rural markets. Type of paper: Research paper Literature review Rural customers purchase products and services are the most based on their level of trust in this product or services, and sellers either in the physical store or online shops. Online trust is the basic and essential element for building a relationship with customers. A present research shows that online trust is lower level than the face-to-face interactions in the physical store (Cassell and Bickmore, 2000), and the result

from Cheung and Lee (2006) shows that trustworthiness of Internet merchant (perceived integrity, perceived competence, and perceived security control) and external environment (third-party recognition and legal framework) have considerable impact on consumer trust in Internet shopping. The trustworthiness of E-commerce web site is very relying on the how much privacy security can be provided. For example, a highly technical competence can be a factor to influence the trustworthiness (Singh and Sirdeshmukh, 2000). As mentioned above that the web merchant can provide third-party verification to E-commerce web site, and while this privacy and security strategies are used, customers will think their Ecommerce transactions through Internet are secure and thus the site is more reliable to them. Beside this point, if the E-commerce web site can provide the information about their customer services, location of the office, contact telephone number, and a help button on the web site, customers could also increase their trustiness as they can feel that the online retailers is truly exist (Lohse and Spiller, 1998). Rural India accounts for more than 50 percent of the GDP. Considering, all these aspects, there was a need to study the purchase behaviour of the youth in the rural markets along with the etailing concept. It is important to understand the purchase patters, trends, etc. of these rural customers to understand the rural markets in depth. According to Li and Zhang's (2002) taxonomy that developed based on their analysis, there are ten impacts of relevant factors on online consumer behaviors. These ten factors could be categorized into five independent variables (external environment, demographics, personal characteristics, vendor/service/product characteristics, and web site quality) and five dependent variables (attitude toward online shopping, intention to shop online, decision making, online purchasing, and consumer satisfaction). The five independent variables are identified as antecedents, which directly determine attitudes towards online shopping. In the antecedents, the vendor/service/product characteristics and web site quality are directly impact on consumer satisfaction. The figure

clearly shows that the antecedents, attitude, intention, decision making, and online purchasing are series of processing stage. Consumer satisfaction is separated and occurs among at all possible stages depending on the consumer's involvement during the Internet shopping process, and this two ways relationship could influence each reciprocally. Fishbein's attitudinal model has been widely used in the marketing context (Lilien et al 1992) and this paradigm provides researchers with a useful lens for examining the factors explaining consumer purchasing intention and adoption. According to

this model, behavior is predominantly determined by intention. Other factors like attitudes,). Subjective norms and perceived behavioral control are also shown to be related to an appropriate set of salient behavioral, normative, and control beliefs about the behavior. However, Fishbein's model stops at the adoption level and does not capture other important factors that explain and predict consumer continuance behavior (repurchase). (Schiffman, Scherman, & Long, 2003 in his study researched that "yet individual attitudes do not, by themselves, influence one's intention and/or behavior. Instead that intention or behavior is a result of a variety of attitudes that the consumer has about a variety of issues relevant to the situation at hand, in this case online buying. Over time the Internet buyer, once considered the innovator or early adopter, has changed. While once young, professional males with higher educational levels, incomes, tolerance for risk, social status and a lower dependence on the mass media or the need to patronize established retail channels (Ernst & Young, 2001; Mahajan, Muller & Bass, 1990), Sultan and Henrichs (2000) in his study concluded that the consumer's willingness to and preference for adopting the Internet as his or her shopping medium was also positively related to income, household size, and innovativeness. Vijay, Sai. T. & Balaji, M. S. (May 2009), revealed that Consumers, all over the world,

are increasingly shifting from the crowded stores to the one-click online shopping format. However, in spite of the convenience offered, online shopping is far from being the most preferredform of shopping in India. A survey among 150 internet users, including both users and non-users of online shopping, was carried out to understand why some purchase online while others do not. The results suggested that convenience and saving of time drive Indian consumers to shop online; while security and privacy concerns dissuade them from doing so. The work of Kim and Park (2005) using U.S. samples suggests that their positive attitudes as well as willingness to search for pre-purchase information leads to a strong likelihood that they will buy online. Online shoppers, are required to have computer skills in order to use the Internet for shopping. Hence, those who are not comfortable with using the computer, will likely do their shopping at the traditional store, modern shop, or discount store (Monsuwe , 2004) because it will be faster shopping there than in the Internet shop. Goldsmith and Flynn (2004) state that the home catalog is another traditional selling channel where people can shop at home because of the varieties of products offered in the catalog. They can order through the phone or by mail. It is convenient except that they are not able to touch and feel products before purchasing. **Objectives** 1. To explore the dimen-

sions of E-commerce. 2. To study the impact of E-commerce on the buying behavior of rural customers.

Research Methodology

The present study identified different online retailing techniques cues that could possibly influence the purchase decision of youth in such a scenario. A multiple cross sectional descriptive type of research was designed for the study. The study identified the perception of three different groups of youths. The respondent fell in age group between 16-30 years. Convenient sampling was used as the sampling technique and a total of 200 responses were collected. Primary data was used in the study, and a survey method of data collection technique was undertaken. Data collection was carried out in 10 villages of Kolhapur district, Maharashtra. A structured pre-tested questionnaire was used as the data collection instrument. Pretesting of the questionnaire was done among small group of youth. Data obtained through the questionnaire were analyzed using SPSS (20) software package in 95 % confidence interval. Cluster analysis is the task of assigning set of objects into groups (called clusters) so that the objects in the same cluster are more similar to each other than to those in other clusters. The present study identified homogeneous group of online shopper, e-consumer and online store visitors. Then, the buying behavior of each group was examined separately, where respondents were clustered on the basis of self-reported importance attached to each factor (E-tailing cues/cluster variable) of the choice criteria utilized in selecting anE-tailing. This was followed by one way **ANOVA** for final interpretation.

Data analysis Cronbach's alpha coefficient, which is widely used to test the reliability, was obtained as 0.827. Hence, it was concluded that the variables fit for an acceptable reliability level. Hierarchical cluster analyses on 200 cases were performed using Ward's method with squared Euclidean distance as its distance measure. An eye balling of the agglomeration schedule and the dendrogram indicated that after three clusters, the succeeding cluster added very less to distinguish between cases. Hence a three cluster solution was found appropriate. The clusters along with their cluster membership are shown in following table

. Table 1: Clusters and Cluster Membership

Clusters	Cluster Membership
1	35
2	100
3	65
Total	200

Source: Primary data

Clusters Cluster Membership 1 35 2 100 3 65 Total 200 Source: Primary data

Table 2:DescriptiveProfile

	Male			Female			Total
	Graduate	Under-Graduate	Total	Graduate	Under-Graduate	Total	
Cluster 1	14	6	20	10	5	15	35
Cluster 2	40	25	65	20	15	35	100
Cluster 3	35	10	45	12	8	20	65
Total	89	41	130	42	28	70	200

Descriptive statistics revealed that there were some major differences between the means of various clusters for each cluster variable. To ascertain the influence of different E-tailing cues on these three clusters, a one way ANOVA was performed, as shown in table 3. This indicates that the result was significant at 95 % confidence interval or all cluster variables except convenient time, Service factor.

Table 3: ANOVA

Sr.No.	Variables	Calculations	Sum of Squares	df	Mean square	f	Sig.
1	Look for awareness	Between groups	302.169	2	151.084	290.14	0.000
		Within Group	121.789	197	0.519		
		Total	423.958	199			
2	Look for information	Between groups	17.256	2	8.628	7.408	0.001
		Within Group	258.234	197	1.25		
		Total	275.49	199			
3	Look for knowledge	Between groups	39.842	2	19.921	17.852	0.000
		Within Group	261.652	197	1.009		
		Total	301.494	199			
4	Brand and purchase decision	Between groups	23.862	2	11.931	7.829	0.000
		Within Group	350.425	197	1.543		
		Total	374.287	199			
5	Message and purchase decision	Between groups	71.562	2	35.781	35.088	0.000

		Within Group	241.562	197	1.011		
		Total	313.124	199			
6	Website visibility and purchase decision	Between groups	150.256	2	75.128	85.281	0.000
		Within Group	218.356	197	0.788		
		Total	368.612	199			
7	Posters and purchase decision	Between groups	7.056	2	3.528	3.084	0.048
		Within Group	189.348	197	0.832		
		Total	196.404	199			
8	Payment security and purchase decision	Between groups	9.862	2	4.931	4.037	0.019
		Within Group	253.281	197	1.21		
		Total	263.143	199			
9	Privacy and purchase decision	Between groups	16.254	2	8.127	6.772	0.002
		Within Group	276.345	197	1.139		
		Total	292.599	199			
10	Convenient time, Service factor and purchase decision	Between groups	0.389	2	0.1945	0.147	0.867
		Within Group	245.423	197	1.074		
		Total	245.812	199			
11	Better price, Variety and purchase decision	Between groups	9.941	2	4.9705	4.321	0.016
		Within Group	276.681	197	1.219		
		Total	286.622	199			

To ascertain the significant differences, post hoc Tukey HSD multiple comparisons were performed, and it yielded the following results as in table 4. It shows that "Look for awareness" clearly differentiated the three clusters through their cluster means. "Look for information" significantly differentiated between Clusters (1,3) and (2, 3). Clusters 1 and 2 were not significantly different with respect to this variable. "Look for knowledge" significantly differentiated between the Clusters (1, 3) and (2, 3). Clusters 1 and 2 were not significantly different with respect to this vari-

able." Brand and purchase decision" significantly differentiated between the Clusters (1, 3) and (2, 3). Cluster 1 and 2 were not significantly different with respect to this variable. "Message and purchase decision" and "Website visibility and purchase decision" clearly differentiated the three clusters through their cluster means. "Posters and purchase decision" and "Payment security and purchase decision" were significant only for Clusters 1 and 2. "Privacy and purchase decision" and "Convenient time, Service and purchase decision" were also significant for

Cluster 1 and 2. The findings suggest that visual merchandising was of paramount importance with respect to most of the 'cluster variables' or 'visual merchandising cues' as far as purchase decision of youth were concerned, with the only exception of cluster variable named "Better price, Variety and purchase decision".

Table 4:Tukey HSDMultipleComparison

Sr.No.	Dependent Variable	(I)Ward Method	(J)Ward Method	Mean Diff. (I-J)	Std. Error	Sig	95 % Confidence Interval	
							Lower Bound	Upper Bound
1	Look for Awareness	1	2	0.60791	0.11805	0.000	0.3295	0.2241
			3	-2.0036	0.12975	0.000	-2.3066	-0.0546
		2	1	0.60791	0.11805	0.000	-0.8824	-1.0455
			3	-2.6177	0.1091	0.000	-2.8693	-0.6215
		3	1	2.0036	0.12975	0.000	1.6972	0.8552
			2	2.6177	0.10916	0.000	2.3541	0.1452
2	Look for Information	1	2	0.12056	0.18391	0.756	-0.3250	-0.3251
			3	-0.5128	0.20214	0.041	-0.8846	0.3216
		2	1	-0.12056	0.18391	0.877	-0.5641	-0.4568
			3	-0.63913	0.17006	0.003	-1.0502	0.3652
		3	1	0.5128	0.20214	0.032	0.0412	0.5897
			2	0.63913	0.17006	0.001	0.2352	0.3546
3	Look for Knowledge	1	2	0.27431	0.17191	0.245	-0.1322	-0.0563
			3	-0.67662	0.18894	0.001	-1.1231	0.2461
		2	1	-0.27431	0.17191	0.215	-0.6537	-0.8564
			3	-2.6118	0.10916	0.000	-2.8392	0.6354
		3	1	0.67662	0.18894	0.001	0.2314	-0.6581
			2	0.95093	0.15896	0.000	0.5760	0.6325
4	Brand and	1	2	-0.11383	0.19966	0.832	-0.5847	0.0065

	purchase decision							
			3	-0.76104	0.21944	0.002	-1.2781	-0.2651
		2	1	0.11383	0.19966	0.832	-0.3571	0.6921
			3	-0.6472	0.18462	0.002	-1.0863	-0.5492
		3	1	0.76104	0.21944	0.002	0.2435	0.4685
			2	0.6472	0.18462	0.002	0.2118	0.0962
5	Message and purchase decision	1	2	1.38419	0.16562	0.000	0.9245	0.0754
			3	0.93636	0.18159	0.000	0.5214	0.1756
		2	1	-1.38419	0.16522	0.000	-1.7265	-0.8885
			3	-0.44783	0.15278	0.010	0.8025	0.8917
		3	1	-0.93636	0.18159	0.000	-1.3652	-0.7125
			2	0.44783	0.15278	0.010	0.0851	0.15426
6	Website visibility and purchase decision	1	2	2.01502	0.15548	0.000	1.6523	2.3295
			3	1.58831	0.17088	0.000	1.1862	2.3066
		2	1	-1.38419	0.16522	0.000	-1.7763	-0.8824
			3	-0.44783	0.15278	0.100	-0.8036	-2.8693
		3	1	-0.93636	0.18159	0.000	-1.3652	-1.6972
			2	0.44783	0.15278	0.100	0.0845	2.3541
7	Posters and purchase decision	1	2	0.34229	0.14803	0.050	-0.0065	0.325
			3	0.11558	0.16271	0.758	-0.2651	0.8846
		2	1	-0.34009	0.14802	0.050	-0.6921	0.5641
			3	-0.22671	0.13688	0.225	-0.5492	1.0502
		3	1	-0.11558	0.1627	0.705	-0.4685	0.0412
			2	0.22671	0.13688	0.224	-0.0962	0.2352
8	Payment security and purchase decision	1	2	0.483004	0.17195	0.015	0.07542	0.1322
			3	0.266324	0.18899	0.338	-0.1756	1.1231
		2	1	-0.483002	0.17195	0.015	-0.8885	0.6537
			3	-0.21677	0.15901	0.362	-0.59172	2.8392

				Mean Diff	Std Error	Sig	Lower	Upper
		3	1	-0.266342	0.18899	0.338	-0.71256	0.2314
			2	0.21677	0.15901	0.362	-0.15426	1.03562
9	Privacy and purchase decision	1	2	0.63478	0.17416	0.001	0.2241	0.5847
			3	0.4	0.19142	0.094	-0.0546	1.2781
		2	1	-0.6347	0.17416	0.001	-1.0455	0.3571
			3	-0.23478	0.16104	0.325	-0.6215	1.0863
		3	1	-0.4	0.19142	0.092	-0.8552	0.2435
			2	0.23478	0.16104	0.325	-0.1452	0.2118
10	Convenient time, Service Factorand purchase decision	1	2	0.08379	0.16776	0.821	-0.3251	0.9245
			3	0.08442	0.18438	0.821	-0.3216	0.5214
		2	1	-0.08379	0.16776	0.852	-0.4568	1.7265
			3	0.00062	0.15513	1.000	-0.3652	0.8025
		3	1	-0.08442	0.18438	0.836	-0.5897	1.3652
			2	-0.00062	0.15513	1.000	-0.3546	0.0851
11	Better price, Variety and purchase decision	1	2	0.46951	0.17418	0.020	0.05632	1.6523
			3	0.15714	0.19144	0.635	-0.2461	1.1862
		2	1	-0.4695	0.17418	0.020	-0.8564	1.7763
			3	-0.31242	0.16106	0.130	-0.6354	-0.8036
		3	1	-0.15714	0.19144	0.635	-0.6581	1.3652
			2	0.31251	0.16106	0.130	-0.6325	0.0845

Conclusion

This study revealed that E-commerce cues largely influenced all the three clusters.

Cluster 1:
This cluster comprised of 57 % male respondents with over 70 % rural and over 30 % urban.

Cluster 2: This cluster comprised35 % female respondents with over 58 % constituting rural and 42 % urban.

Cluster 3: This cluster comprised of 69 % male respondents with over 77 % constituting rural and 23 % urban.

Cluster variables like "Look for awareness", "Message and purchase decision" and "Website visibility and purchase decision" significantly differentiated across all the three clusters. Variable like "Posters and purchase decision", "Payment Security and purchase decision", "Privacy and purchase decision" and "Better price, Variety and purchase decision" were significant only for Cluster 1 and 2. "Look for information", "Look for Knowledge" and "Brand and purchase decision" significantly differentiated between Clusters (1, 3) and (2, 3). The result of this study emphasized and further supported the importance of E-tailing as an important element of marketing. E-commerce as found to have high impact on youth consumers purchase patterns, the retailers, manufactures, franchisor and website owner have to rethink their positioning strategies for designing effective design and visual effects.

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