

A REVIEW OF CONSUMER ONLINE BUYING BEHAVIOUR

Bhumika Pahwa

Information Technology department, DAVIM, (India)

ABSTRACT

Majority of the population today is a user of online shopping, and after the growth of e-commerce, now M-commerce is coming into limelight. Various studies show that m-commerce has many advantages that make the consumers prefer m-commerce over e-commerce. Data mining is a semi-automatic discovery of patterns, associations, changes, anomalies and statistically significant structures and events in data. In data mining, the patterns are automatically derived from the data and that is the reason it is called as data-driven. Numerous studies on consumer buying behaviour have been presented and also used in practical but majority of them use statistical tools for analysis but here it is proposed that data mining be used for customer online buying behaviour. Consumer behaviour analysis means the study of individuals, groups or organization in regard to their process of selecting, securing, using and disposing the products, services or experience to satisfy needs and the impact of these processes on the consumer and society.

Keywords: *Consumer Behaviour, Data Mining, E-Commerce, M-Commerce.*

I. INTRODUCTION

The invention of internet has changed the idea of the traditional way of shopping. A consumer is no longer bound to opening times or specific locations of the retail outlets; he can become active at virtually any time and place and can purchase products and services. According to Joines et.al, 2003, Internet provides a medium for communication and information exchange and the number of internet users are increasing leading to the growth of online shopping trend. E-commerce is widely considered as the buying and selling of products over the internet, but any transaction that is completed solely through electronic measures can be considered as e-commerce. E-commerce is subdivided into three categories: business to business or B2B (Cisco), business to consumer or B2C (Amazon), and consumer to consumer or C2C (eBay) and also called as electronic commerce. E-commerce is considered a mass medium that provides the customers with purchase characteristics like none other medium. As per Joines et.al, 2003, Certain characteristics make it more convenient for shopping, like the ability to view and purchase the products any time, visualize their needs with the products, and discuss products with other consumers. As explained by Oppenheim and ward, 2006, the primary reason for buying goods and services online is convenience. They also identify that previously the reason for shopping online was price but now that has shifted to convenience.

Another trend that is growing very fast these days is the practice of conducting financial and promotional activities with the use of a wireless handheld device which is known as mobile commerce or M-commerce, and

recognizes that the transactions may be conducted using cell phones, personal digital assistants and other hand held devices that have Internet access.

Newly released research from Forrester research shows that mobile commerce is going to skyrocket. By 2018, mobile (and tablet) commerce is expected to soar to \$293 billion dollars: a substantial increase from this year's current projected of \$114 billion.

"There's no question that mobile commerce is growing at a fast clip," said eMarketer principal analyst Jeffrey Grau, author of a forthcoming report on mobile buying. "And mobile acts as an engine of overall ecommerce growth, by converting potential brick-and-mortar sales to digital sales as consumers use their smart phones while shopping in-store."

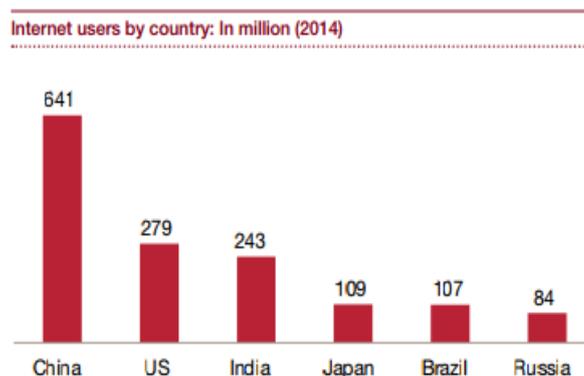
Now, in order to have an impact on the consumers and being able to retain them in such a competitive and easily accessible market, the first step is to identify the aspects that influence the customers while purchasing online. The problem here is that there are millions of people online at any time and almost each of them is a potential customer for a company that provides online retailing. And now with the added ease and other benefits of m-commerce, a company that is interested in selling its products online will have to constantly search for different ways in which it can offer its services to the consumers.

II. FACTORS THAT LEAD TO THE GROWTH OF ONLINE MARKET

A significantly low (19%) but fast-growing internet population of 243 million in 2014 is an indicator of the sector's huge growth potential in India.

According to Forrester Research, an independent technology and market research firm, only 16% of India's total population was online in 2013 and of the online users only 14% or 28 million were online buyers. India, therefore, was still in a nascent or immature stage of evolution of online retail spending. China was in ascending stage at 50%, whereas Japan (69%), Australia (57%) and South Korea (70%) were in mature stage.

According to Internet live stats website, it is evident that in absolute terms India's internet users are short by only 36 million as compared with 279 million in the US and higher than that in Japan, Brazil and Russia. However, in relation with its population, only 19% Indians use the internet. This indicates the potential of internet use in India and as internet penetration increases, the potential of growth for the e commerce industry will also increase.



Source: Internet Live Stats website accessed on 9 December 2014

Figure 1: Country-wise Internet Users

An analysis of the demographic profile of internet users further testifies that e-Commerce will rise rapidly in India in coming years. Around 75% of Indian internet users are in the age group of 15 to 34 years. This category shops more than the remaining population. Peer pressure, rising aspirations with career growth, fashion and trends encourage this segment to shop more than any other category and India, therefore, clearly enjoys a demographic dividend that favours the growth of e-Commerce. In coming years, as internet presence increases in rural areas, rural India will yield more e-Commerce business.

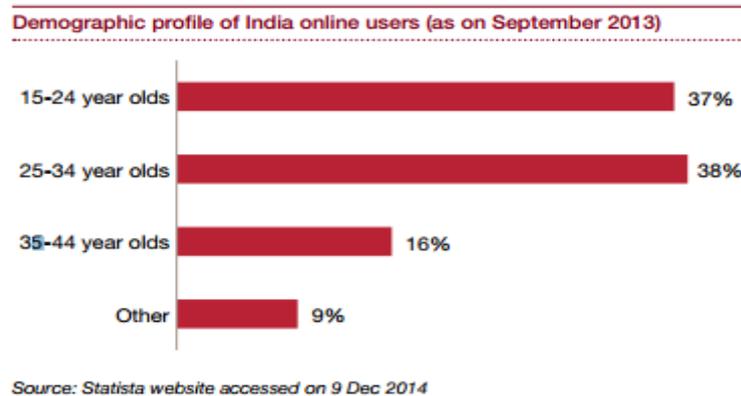


Figure 2: Demographic Profile of Indian Online Users

III. CONSUMER BEHAVIOR

Consumer behaviour means the study of individuals, groups or organizations about their process of selecting, securing, using and disposing the products, services, experiences or ideas to satisfy needs and the impact of these processes on the consumer and the society. Behaviour concerns either with the individual or the group (e.g. In college friends influence what kind of clothes a person should want to wear) or a firm (people working in firm make decision as to which products the firm should use.) The use of product is often so important to the marketer because this may influence how a product is best positioned or how they can encourage increased consumption. Consumer behaviour involves services and ideas as well as tangible products. Donal Rogan, 2007 explained the relationship between consumer behaviour and marketing strategy. He has stated that “strategy is about increasing the probability and frequency of buyer behaviour. Requirements for succeeding in doing this are to know the consumer and understand the consumer’s needs and wants.”

Chisnall (1995) points out that human needs and motives are inextricably linked and that the relationship between them is so very close that it becomes difficult to identify the precise difference which may characterize them. People may buy new jackets because it protects them against the weather, but their real underlying dominant need may be to follow the latest fashion trend.

Kotler and Armstrong (2007) explain the ways in which the consumer interprets and receives stimuli from advertisements. The decisions of consumers are influenced by a number of individual characteristics that are linked to the consumer’s specific needs.

Table 1: Factors that affect the consumer online buying behaviour

References	Factors
San José Cabezudo, 2010	Personality traits
Hill and Beatty, 2011; Hernández, Jiménez and Martín, 2011	Self-efficacy
San José Cabezudo, 2010	Demographic profiles
Close and Kukar – Kinney, 2010	Acceptance of new IT applications
San José Cabezudo, 2010	Perceived danger
Lim and Dubinsky, 2004	Perceived convenience
O’Cass and Fenech, 2003	Perceived website quality
Hernández, Jiménez and Martín, 2010	Perceived benefit
Chaipoopirutana and Combs, 2010	Security
Galanxhi-Janaqi and Fui-Hoon Nah, 2004	Privacy

IV. REVIEW OF PREVIOUS WORK

Niranjanmurthy M et.al, 2013	Analyzed e-commerce and m-commerce and expressed that, E-commerce is widely considered the buying and selling of products over the internet, but any transaction that is completed solely through electronic measures can be considered e-commerce. These days, m-commerce is playing a major role in online retail marketing and people are using this technology increasing all over the world. Mobile commerce involves all kind of electronic transactions by the use of mobile phone. They mentioned various advantages, limitations and growth drivers of m-commerce.
Friedman (1999), and Sirdeshmukh et al. (2002)	Argue that consumers that engage in online business to consumer transactions can find another provider to meet their expectations just by the click of a mouse. As a result, they face minimal barriers to switching to another brand, especially in cases of little differentiation amongst competing products
Chung-Hoon, 2003; Constantinides, 2004; Kung <i>et al.</i> , 2002; Lodorfos <i>et al.</i> , 2003;	Presented that, online brand loyalty suggests that consumers weight differently the importance of factors influencing their purchasing decisions in the online market than those in the traditional shopping environments, which in turn may affect their e-brand loyalty. Factors that have been extensively covered in these researches as having a significant effect on the consumers’ purchasing decisions online are: beliefs about brand, price, trust, experience and convenience.
Liberman and Stashevsky, 2002;	Show that the major concerns of online shopping are ‘security of online payments’ and ‘privacy of personal information’.

Park and Kim, 2003;	
Doolin et. al., 2005	Show that privacy risks have a negative association with online purchasing behaviour and deter Internet users from shopping online frequently and from spending significant amounts of money.
Vijayasarathy & Jones, 2000; Park, 2002; Brown, et. al., 2001;	Present that in the emergence of diverse retail outlets and increasing competition in the marketplace, online retailers must understand customers' shopping orientations in order to maximize customers' online purchase intention that leads to the increase in online sales. Several researchers have demonstrated that shopping orientations have significant impact on customer online purchase intention.
Davis, Bagozzi & Warshaw, 1989	Showcase that a key purpose of TAM is to provide a basis for tracing the impact of external factors on internal beliefs, attitude and intention; TAM states that, two particular beliefs; perceived usefulness and perceived ease of use are primary relevance for computer acceptance behaviours.
Yuliharsi et.al. 2011	Discusses the factors influencing the customers buying intention using online shopping based on the TRA and TAM concluded that Compatilby, usefulness, ease of use and security are the important predictors towards attitude in on-line shopping.
Fishbein and Ajzen (1975), and Davis (1989)	Presented the Theory of Reasoned Action (TRA) and Davis (1989) presented the Technology Acceptance Model (TAM) which provided theoretical context to measure beliefs, forecast future behaviour. According to Fishbein and Ajzen 1975, the TAM model accommodates the Theory of Reasoned Action (TRA) to show acceptance to information technology. TAM expresses two beliefs of specific behaviour i.e ease of use and usefulness, determine the individual intention and behaviour to use a technology, where attitudes toward use directly influence the intention for the actual usage.
Vijayasarathy, 2003	TAM also figures a harmony link between ease of use and usefulness; proposed individual's perception how easy or difficult to use that system will influence their perception about usefulness of that system.
Shwu-Ing Wu, 2015	Studied the relationship between consumer characteristics and attitude towards online shopping, the author examined the internet user concerns and perceptions of online shopping. He used the Fishbein model to measure consumer attitudes and the important consumer characteristics that influence online shopping attitude and decisions.

V. CONCLUSION

The above work gives immense input to the study of consumer behaviour. Analysing consumer behaviour is important for the market as it helps the retailers and sellers to decide the marketing strategies for the products that are being launched. After going through the various past studies the researcher analyzed that study on consumer behaviour when they use e-commerce and m-commerce for shopping of fashion and personal care items is missing. The study of m-commerce is still confined to its growth factors, suppressants, advantages and limitations. Consumer buying behaviour when they use e-commerce exist but not specifically towards fashion

and personal care industry, and also the researcher found that study of consumer behaviour towards m-commerce is also missing. Studies regarding m-commerce discuss the factors that affect the m-commerce growth viz. Ease affordability and availability along with other advantages of online shopping and also none of the studies based on m-commerce involve data mining as the assessing tool.

VI. FUTURE WORK

The author proposes to study the consumer behaviour when they buy fashion and personal care items online through e-commerce as well as m-commerce using data mining techniques because consumer behaviour differs depending on what products or services are being bought.

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