



An Analytical View of the Moderating Effect of Gender on Online Purchase Behavior

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ABSTRACT: The world today is getting more and more competitive day by day. People are now shifting from supermarkets and grocery stores to shopping items online as it is more convenient and can be done everywhere at any time. As a result, the number of e-shopping sites has increased. Online-trade has made lifestyle simple and progressive of people and businesses. The client behavior in online buying is different from the physical marketplace in which he has to get right of entry to see the product. Because of the amazing prominence and fast development of the internet and system innovation, electronic trade has turned into a noteworthy movement in contemporary business activities. Today gigantic business exercises are directed on the web. Individuals go online to sell and purchase numerous items using internet innovation. A survey was conducted using simple random sampling to get the analytical view of business and marketing through e-commerce. The main objective of the paper is to examine the efficiency and effectiveness of current practices of marketers, revealing the underlying motives and factors of online shopping, while ensuring the practicality of these objectives. Chi-square method is used for the statistical analysis and interpretation of test results, showing the importance of online business and marketing. The results indicated that the major challenges faced by respondents were unclear website policies and the risk associated with credit card transactions. It is recommended that further research can be done to explore the different types of stimuli provided by online shopping medium to boost unplanned shopping behaviours among customers.

Keywords: Online-marketing, Supply chain management, Traditional marketing, Chi-Square, Online consumer behavior dynamics, Cramer's V, E-mail Campaign Strategy.

I. INTRODUCTION

Online shopping is a form of e-commerce which allows a consumer to find a product of interest over the internet by using a shopping search engine or retailer's website. Consumers buy products from a seller directly using web browsing which displays the good's readiness and rates at various e-retailers. Online shopping has given the retailers the convenience to reach out to their customers without sacrificing the experience of in-store purchase. In 2019 around 2.05 billion people that is 21.55% global population made online purchases. This number was expected to reach 2.14 billion by 2021 as shown in Fig 1. With this, Online sales were projected to reach \$4.5 trillion by 2021 [12].

The rise of electronic shopping developed with the emergence of the internet. As online marketing continues to grow extensively, it was observed that free shipping offers, Online sales, shoppers convenience, variety of products available in one place and store-oriented customers were significant motivating factors. Online shopping offer several advantages to the customers such as the ability to shop 24/7, flexibility to purchase products not available in the city or country, compare competitive prices, etc.

According to a survey by First Insight women are more inclined towards online buying in comparison to men who still prefer in-store purchase. This finding is mainly

supported by the fact that preferences towards new products are changing at a fast rate, with additional options available to exchange the used products. Retailers have developed mobile apps for easy access and use social media like Instagram and Facebook to advertise their products using data analytics to analyse customer social media activities.

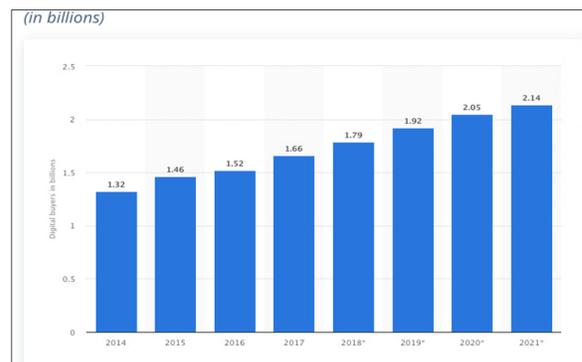


Fig. 1. Number of Digital Buyers Worldwide from 2014 to 2021.

Research by First Insight also revealed that 40% of females use mobile phones to do online shopping in comparison to 22% of men.

This study is conducted to analyse the effect of gender on online purchase behaviour of consumers [10, 11]. Despite the numerous researches on online purchasing behavior of customers, there is a gap in the research revealing the impact of gender on online buying behavior of consumers. So the main aim of the current study is to analyse if there is any significant influence of gender on online buying behavior of customers.



Fig. 2. Ecommerce Trends.

II. BACKGROUND

Throughout marketing literature, customer satisfaction is regarded as one of the most studied constructs. It plays a major role in the competitive environment due to its ability to maintain existing clients and introduce new clients. Some researchers have defined satisfaction as a person's feeling of pleasure or dissatisfaction resulting from a comparison of product or service results and expectation [6]. Oliver offered another point of view, in which he described customer satisfaction as the "market answer to fulfillment." It is a decision related to a product/service function, or the product or service has actually provided (or is providing) a pleasurable degree of fulfillment related to consumption [2]. Customer satisfaction is a very important factor that would decide an organization's attractiveness to consumers and its products and services. It is evident that customer satisfaction is crucial for long-term retention of those customers with the company [1].

Guo & Luo explored the impact of sales through a novel set of product-level data in their research paper entitled "The effect of sales and evidence from micro-data." Results of their study states that when the products and services are placed on sale, buyers are more prone to price compared with when there is no sale. They also found through their research that shoppers are more conscious of price decreases than price increases i.e. price magnitude decreases are much greater than price magnitude increases [3]. Faqih observed that the perceived risk also has the characteristics of shopper's secret eagerness to engage in online shopping since it is perceived to increase web-based shopping vulnerabilities, the non-traditional mode [4].

Alreck concluded that online merchants who jointly support both time-saving and faster task fulfillment attract more customers than those who concentrate on just one of those advantages [15]. Data about online customer purchasing behavior is needed to help businesses identify their website design, online advertising, market segmentation, product variety and inventory holding and distribution strategies [7].

Dodds studied the impact of size, brand and store details on product assessments of the purchasers [8]. The importance of time spent in price comparison shopping was measured by Marmorstein [9]. Lee and Kozer studied the dimensions and purchasing intentions of online shopping websites and found that readability for telepresence and material relevance had a direct influence on online purchases [14]. Brynjolfsson and Smith stressed that branding and trust among internet retailers remain important sources of heterogeneity [13]. Although many researchers have examined the attitude of online shopping in different parts of the world but there is still a lack of studies on the attitude of online shopping in certain countries and cultures. Augmented Technology Acceptance Model (TAM) was developed by Vijayasathy to predict customer intentions to use online shopping by introducing privacy and security as new variables [5]. Tandon with fellow researchers hypothesized that they viewed usability as being easy to order, easy to understand, easy to use and easy to buy [6].

III. MATERIALS AND METHODS

This section contains a procedure that is utilized to gather information during the exploration. The main aim of the study is to get significant information and translate it to mirror the research question. Along with online consumer purchase behavior dynamics, potential problems with online shopping has also been given prominent attention. A questionnaire is prepared to fetch data from a group of customers to compare the role of e-commerce in marketing and business to improve customer satisfaction. The joint methodology of the above techniques guaranteed that due consideration has been taken to critically examine the efficiency and effectiveness of current practices of marketers, revealing the underlying motives and factors of online shopping, while ensuring the practicality of the objectives stated below.

- To study the satisfaction level of customers in both conventional and online modes of shopping.
- To study the effect of online shopping on consumers behavior.
- To investigate potential problems with online shopping.
- To examine if there is any significant influence of gender on online buying behavior of customers.

The data analysis intends to examine analytical view of business and marketing through e-commerce. A pilot survey was conducted on 96 respondents using Simple Random Sampling (SRS) to get the analytical view of business and marketing through e-commerce. This procedure always starts with giving the two mutually exhaustive hypotheses: the null hypothesis, denoted by H_0 and the alternative hypothesis, denoted by H_1 .

Null Hypothesis (H_0): There is no significant difference between thinking of male and female regarding online marketing.

Alternate Hypothesis (H_1): There is significant difference between thinking of male and female regarding online marketing

Chi-square test and Cramer's V is used. Cramer's V is used as post test to determine strength of association after chi square has determined significance.

IV. STATISTICAL ANALYSIS, RESULTS AND DISCUSSION

The statistical analysis based on the samples collected from the respondents to observe the response of the public in general regarding their view of business and marketing through e-commerce is studied extensively.

Both the male and female are of the view that online shopping saves time as compared to the traditional shopping methods, since the buyer can shop at his convenience. From the Table 1, it is observed that the Chi-square value is 1.06 with 2 degrees of freedom having P-value equal to 0.5886, which is greater than 0.05, therefore we accept our Null Hypothesis. Cramer's V shows moderate correlation between the variables under study.

There is contradiction in the views expressed by both the genders, as females are of the opinion that there are wide range of products available on the online platform for them whereas for males the choice is limited. As it is observed from the data in Table 2 that 76.47% support the fact that Online retailers have to go a long way to improve their product line.

From the Table 3, it is seen that the Chi-square value is 0.45 with two degrees of freedom and P value as

0.7985 which is greater than 0.05 therefore we accept our Null hypothesis. It infers that there is no significant difference in thinking of both the genders with respect to the growing popularity of online platform over the years. The value of Cramer's V in the Table 4 is 0.3803 showing very strong association between the variables under study. Females believe that online shopping is more beneficial than the traditional shopping methods as they can shop at their own convenient time and place. However there is a significant difference observed as males find traditional method more convenient than online shopping.

From the given Table 5, it is observed that Chi-square value is 24.17 with two degrees of freedom and P value is <0.0001 which is less than 0.05 therefore we reject our Null hypothesis and conclude that there is significant difference in thinking of both the genders with the respect to online shopping and delivery services. It is seen that the female find online shopping more convenient as it saves time and they can purchase products from the comfort of their own homes and workplaces.

Table 1: Does Online shopping save time?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Agree	29	34	63	1.06 df=2	0.5886	0.1019	NS
Neutral	15	12	27				
Disagree	7	5	12				
Total	51	51	102				

where, *NS=Non-significant, *S= Significant.

Table 2: Are there wide range of products available on the Online platform?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Agree	12	31	43	14.69 df=2	0.0006	0.3795	S
Neutral	23	13	36				
Disagree	16	7	23				
Total	51	51	102				

Table 3: Do you think that online shopping has gained momentum over the years?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Yes	35	38	73	0.45 df= 2	0.7985	0.0664	NS
No	7	6	13				
Can't say	9	7	16				
Total	51	51	102				

Table 4: Do you agree that online shopping is more advantageous than the traditional shopping methods?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Yes	15	34	49	14.75 df=2	0.0006	0.3803	S
No	29	12	41				
Can't say	7	5	12				
Total	51	51	102				

Table 5: Do you think online shops and delivery services are convenient?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Yes	10	27	37	24.17 df=2	<0.0001	0.4868	S
No	32	8	40				
Sometimes	9	16	25				
Total	51	51	102				

It can be inferred from the Table 6 that females are highly satisfied with the services offered by the online retailers due to convenience, easy access to consumer reviews, latest discounts and price cuts, no salesperson pressure, easy comparison of prices of different products and wide range of options available. It seems that males enjoy the traditional shopping experience of purchasing from malls, supermarkets and Mom and Pop stores.

From the Table 7, it is analysed that the value of Chi-square is 17.99 and P value as 0.0001 which is less than 0.05 therefore we reject our Null hypothesis, also Cramer's V is 0.42 so we conclude that difference in the views of the males and females is highly significant. It is observed from Table 8 that both the genders are of the opinion that online shopping can be risky at times as there are various privacy and security issues associated with online transactions in form of scams and hoaxes. From the Table 9 we observe that females find online shipping charges reasonable as compared to males,

reason being they have a choice to compare the prices of different retailers before making the purchase. The P value observed is 0.0014 which is less than 0.05 so we reject our Null hypothesis.

It can be inferred from the Table 10 that females have switched from traditional method of purchasing to online medium due to the convenience associated with online purchase as they get wide variety and range of products with better discounts and product comparisons available.

Since females are more used to shopping online they regularly review customer feedbacks so as to make informed decision about the products. On the other hand we see that males are not inclined towards online shopping so they are not keen on customers review when deciding on making an online purchase. From the Table 11, it is analysed that P value is 0.0349 which is less than 0.05 therefore we reject our Null hypothesis and conclude that there is significant difference in thinking of both the gender.

Table 6: Do you believe that the services offered by the online retailers are as per your expectations?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Strongly Agree	9	26	35	16.59 df=3	0.0009	0.403	S
Somewhat Agree	10	11	21				
Strongly Disagree	8	6	14				
Somewhat Disagree	24	8	32				
Total	51	51	102				

Table 7: Do you get competitive prices on the online platform?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Yes	14	29	43	17.99 df=2	0.0001	0.42	S
No	6	12	18				
Sometimes	31	10	41				
Total	51	51	102				

Table 8: Do you believe online shopping can be risky at times?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Yes	7	9	16	0.68 df=2	0.7118	0.0816	NS
No	27	23	50				
Sometimes	17	19	36				
Total	51	51	102				

Table 9: According to you the shipping charges for the products you purchase online are.

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
High	24	6	30	15.63 df=3	0.0014	0.3915	S
Reasonable	15	25	40				
Moderate	9	13	22				
Low	3	7	10				
Total	51	51	102				

Table 10: Does the convenience offered by online shopping makes you shop more ?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Agree	17	27	44	19.18 df=2	<0.0001	0.4336	S
Neutral	9	19	28				
Disagree	25	5	30				
Total	51	51	102				

Table 11: How often do you read customer reviews when deciding on making an online purchase?

	Male	Female	Total	χ^2	P-value	Cramer's V	Remarks
Every time	12	24	36	6.71 df=2	0.0349	0.2565	S
Sometimes	21	17	38				
Never	18	10	28				
Total	51	51	102				

V. CONCLUSION

Due to recent technology online shopping has become a major trend worldwide. Many factors including functionality, privacy trust factor, engaging site, firm reputation, appropriate and full data about merchandise influence consumer online buying behavior. The study was conducted on residents of Dubai to understand the buying behavior of customers in both conventional and online medium. For this study online retailers who are key influencers in the marketplace are also taken into consideration along with online consumer purchase behavior dynamics. A questionnaire was prepared to fetch data from a group of customers to compare the role of e-commerce in marketing and business to improve customer satisfaction. The joint methodology of the above techniques guaranteed that due consideration has been taken to critically examine the efficiency and effectiveness of current practices of marketers, revealing the underlying motives and factors of online shopping. The overall survey reveals that females are more inclined towards online shopping due to the convenience of shopping from home or workplace, latest discounts and price cuts available with wide range of options and easy comparison of prices of different products. On the other hand males prefer conventional method over online shopping medium as they believe that there is limited choice available for them, product delivery time is more and there is no shopping experience. However both the genders are of the opinion that online shopping can be risky at times as there are various privacy and security issues associated with online transactions in form of scams and hoaxes. So it is essential for e-marketers and retailers to be careful while shopping online.

VI. FUTURE SCOPE

Our research has revealed that online shopping behavior encourages unplanned shopping specially among women as they have regular updates about the latest discounts and price cuts from the retailers with wide range of options and easy comparison of prices of different products. So we encourage a future research on examining the relationship between unplanned purchase and online buying behavior among customers. Researches can further explore the different types of stimuli provided by online shopping medium to boost online unplanned shopping behaviors among customers.

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