

Improving Customer Satisfaction Criteria in E-Commerce Platform

Jishnu M, Arun Jose, Harikrishnan, Lenish

Department of Mechanical Engineering, Mangalam College of Engineering, Ettumanoor, Kottayam, Kerala, India

ABSTRACT

In The COVID-19 pandemic has had major influence on the people all over the world. This has also influenced the consumers to shop online owing to their apprehensions regarding the safety. Therefore, this has opened up huge opportunities to online retailers and platforms to increase their sales and revenue and at the same time posed several challenges. E-commerce business is becoming scalable as more and more people are forced to buy online due to their apprehension to go to physical stores in the time of pandemic. This study is aimed at understanding the factors that are causing an increase in the e-commerce transactions and also attempts to know the consumer behaviour during the COVID-19 pandemic. Through a survey of 195 respondents, the study found that frequency of online shopping has increased during the pandemic period. The study suggests that both online and offline retailers have to invest in smarter technologies and improve customer engagement.

Article Info

Publication Issue :

Volume 7, Issue 2

March-April-2021

Page Number : 672-676

Article History

Received: 05/01/2021

Accepted: 03/03/2021

Published: 30/30/2021

I. INTRODUCTION

The COVID-19 pandemic has changed the life of people worldwide. Lockdowns and social distancing norms have had a major influence over the way people shop. Consumers are looking for a convenient and safer place to do their shopping. The footfalls at the shopping malls have also reduced post-lockdown and this can be due to the hesitancy among the consumers to shop in these locations. Hence, online shopping is gaining further significance in the time of pandemic. The Indian e-commerce companies have also seemed to have taken this as an opportunity to serve the existing customers who already shop online as

well as to attract new customers who otherwise would shop from offline retail stores. In 2016-17, online retail market in India was just 1.5 percent of the overall retail market (IBEF, May 2018). With the pandemic haunting the people in the years to come, e-commerce market can be expected to witness a drastic change.

The pandemic has caused an increase in the number of customers shopping online and also the number of first-time users of e-commerce has also raised (Halan, 2020). A survey by UNCTAD (2020) also found that the pandemic has resulted in a sales growth of e-commerce websites. The survey found that around 64 per cent of third-party marketplaces have witnessed

an increase in their sales during the period March and July 2020. Bain & Co Report(2020) indicated that due to customers look for safety and convenience, significance of e-commerce would enhance in the post-pandemic period and could reach 300 to 350 million shoppers by the Financial year 2025.

The present study aims at understanding the factors that would help e-commerce companies to scale-up their business during and after the pandemic. Further, as the reports suggest that the customers are increasingly shifting their purchases to online sites during the pandemic, this study also aims at knowing the customer behaviour during the pandemic.

II. MATERIALS AND METHODS

In this paper drip irrigation control using mobile phone. They use different sensors like humidity, temperature, light etc. for detection purpose. These sensors send real time value to microcontrollers send to PC via serial communication. In this system central monitoring is computer and remote monitoring is mobile phone and mobile send command via network and android application to PC. Then PC will ON or OFF device. They use Hardware like ADC0808, IC89C51 IC microcontroller, MAX232 for serial communication. Objective of this paper is 1) Android application and implement hardware of drip irrigation control using internet that is suitable for real life implementation. 2) Control drips remotely as well as automatically that reduce overhead of farmer and it also reduce man power that farmer needs to supply water to plants. 3) It is very beneficial for increasing crops production. This system can be used in area where water resources are less. This type of application we can use for large area farms [1]. This paper makes use of the Arduino based automated irrigation system that uses the android smartphone for remote control. The system is designed using a soil and moisture sensor that provides a voltage signal that is proportional to the moisture content in the soil and then compared with the predetermined threshold value

obtained by sampling of various soils for specific crops. The outcome of the comparison is that the appropriated data is fed to the Arduino processor. The Arduino is linked wirelessly via HC-05 to the android smartphone. The data received by the android smart phone using Arduino is displayed on the user interface (UI). The UI in the android smart phone allows the user to use easy remote control for the irrigation system that involves switching on and off of the driver motor through the Arduino wire which is linked to its controller commands from the android smart phone. This type of studies are conducted on a laboratory prototype suggests that this design is valuable and can be easily implemented on real time applications [2]. In this proposed system the moisture and fertility measured sensors are used and also used Zigbee for android mobile to send the SMS and also used drip irrigation automation for soil moisture measurement [7]. It utilizes wireless sensor network for getting different information from soil properties and environmental data using sensors. In this three nodes are used. One of them is acting as the master node which collects the data from the other nodes. Master node is the one who is communicating with the gateway. The other nodes are sending the data to the master node through Zigbee via USART using RS232. The gateway is sending all the data to PC that is stored for the user [9].

In this system we will be including data mining concept for the prediction of future outcomes. Data mining concept examine the large pre-existing data in order to produce the new information. We will be including the cloud computing concept for the communication between the pc and mobile. Cloud computing is a technique in which a large number of computers connected through a real-time communication network

III. SCALABILITY FACTORS FOR ONLINE RETAILERS DURING COVID-19

The following are the factors that have enabled e-commerce companies to enhance their business during the pandemic.

1. Emergence of demand for new category: Mobile phones were the biggest contributor to online sales in the year 2019 (IBEF, June 2020). Also, the share of consumer electronics and apparels was highest in e-commerce retail. However, COVID-19 crisis has led to a situation where customers are now looking to buy necessities and groceries online. Online shopping service for grocery is not available to all pincodes in the country. Hence, the online retailers can find this opportunity to cater to the emerging needs of customers.
2. Increasing sales: The Bain & Company report 2020 has noted that the online market in the country would expand from 300 to 350 million shoppers in the next 5 years and also the Gross Merchandise Value would be pushed to \$100 to \$120 billion by 2025. This shows that an amazing opportunity lies for online retailers to expand their sales in the coming years. As more customers will gradually start favouring online stores for purchasing food, groceries, personal care and health care products apart from consumer electronics and fashion, e-commerce retailers will have to cater to the rising customer demand.
3. Local partnerships and co-existence: It is very unlikely that offline retailers could completely replace their offline counterparts in countries like India. However, online retailers can take the present situation as an opportunity to partner with offline retailers located in tier-2 cities and beyond to increase their customer touch-points. Partnering with small and local retailers to act as pick-up stores can help online retailers to expand their market. Also, the

offline retailers can increase their footfalls due to this. In this new era, co-existence of online and offline stores is vital. One of the leading e-commerce platforms in the country, Amazon India, has launched a program called 'Local Shops on Amazon' where local sellers can register on Amazon and serve more customers from local areas (Amazon Services, n.d). Many shopkeepers across the country have registered for this program and have added a wide range of products to the already large product assortment of Amazon. The products range from consumer electronics to durables, kitchen items to grocery and consumables, gifts, fresh flowers and cakes. This enables them to boost their sales. Another e-commerce player Flipkart has also partnered with many kirana stores with similar objectives.

4. Customer loyalty: Increasing online sales during a pandemic is not an absolute measure of success for online retailers. Instead, online platforms have to focus on increasing customer engagement with their online stores. Retaining the new customers can contribute to online retailers' profits in the long run. In this direction, online retailers along with their core activities can provide sticky customer services such as video streaming, gaming, booking and payments in a single platform. (Poojary & Krishna, 2020)

IV. CHALLENGES FOR ONLINE RETAILERS DUE TO COVID-19

Though the opportunities are many to improve scalability during extreme conditions, the online retailers also have to address equally challenging issues to meet the increasing customer orders. The following are some of the challenges posed to online retailers due to COVID-19.

- 1) Development of infrastructure: With the

increase in demand online retailers have to improve their infrastructure as well. Supply chain has to be improved to a great extent to ensure customer satisfaction. Online retailers will also have to strengthen their relationships with local retailers to provide services beyond the tier-2 cities.

- 2) Concerns over quality: As more customers are being attracted towards online stores, compromise over quality is something which is not affordable to online stores. Online stores will have to undertake more stringent quality checks to ensure quality products reach the customers. This can go a long way in ensuring success to online retailers
- 3) Co-competition: In no way online retailing can dominate offline retailing or vice-versa. Co-existence is the only way to remain relevant in the ever-changing business world. Online retailers should partner with local retailers to enlarge their reach. There is growing annoyance between online and offline retailers in India. In such a scenario, competition between the two has to be replaced by co-operation which would ultimately benefit the customers.
- 4) Social influence: The community is going to be a great influencer for customers to shop online. Hence, online retailers have to work towards engaging the community through social commerce. The marketing

V. RESULTS AND DISCUSSION

This section gives the demographic profile of the respondents and their online shopping behaviour during COVID-19

Table 1: Profile of the respondents

Particulars	Frequency (N=195)	Percentage
Gender:		
Male	92	47.2
Female	103	52.8
Age (in years):		
Upto 25	32	16.4
26-35	65	33.3
36-45	40	20.5
46-55	44	22.6
55 and above	14	7.2
Educational Level:		
Upto 12 th Standard	15	7.7
Graduate	93	47.7

Table 1 shows that the majority of respondents are female and are in the age group of 26-

35. All the respondents are well educated and are employed with more than a half being employed in private jobs. Majority of the respondents have a better income level and are married. The analysis of the respondent's profile reveals that they are well educated and have an independent source of income. They are able to make purchase decisions independently.

Table 1 indicates that out of the total number of respondents, a majority (78.5%) have online shopping experience before the pandemic hit the world. This percentage increased during the pandemic to 92.3%. This supports the findings of the previous studies that customers are shifting their purchases to the online marketplaces during the pandemic. The respondents have reported spending more online during this period. Further, the data revealed that all the respondents who shopped online during the pandemic have shown interest to continue shopping online. Therefore, the study found that there is a change in the customer behaviour during the pandemic

VI. CONCLUSION AND SUGGESTIONS

Online retailing has grown immensely over the years and there is enough headroom for further growth. COVID-19 has caused the e-commerce market to penetrate further, owing to customer hesitation to shop from offline stores. Apprehensions regarding shopping from physical stores and restrictions on movement have forced customers to buy online during the pandemic. For consumers online retail gives access to a large assortment of goods and for sellers it gives an opportunity to reach a large geographical area with limited resources. The sales of e-commerce platforms have significantly grown comparatively to the pre-lockdown order volumes. The results show that more customers are buying kitchen essentials, personal care products and groceries online. The demand for essential and hygiene products is increasing and the online platforms have to ensure that the customer demand is met effectively so that satisfied customers are retained. The finding that customers are gradually shifting their purchases online emphasises that online platforms have to focus on improving customer experience. This is because increasing sales is not enough to ensure growth in the long run. The online retailers in India will have to invest more in infrastructure and also look for profitable tie-ups with local retail stores. However, smaller ones would have to concentrate their energy and efforts in meeting the increasing consumer demand. Offline retail stores too would have to reinvent themselves to drive customers in the 'new normal' scenario. In countries like India, it is unlikely that online stores could completely replace offline stores. Therefore, the offline retailers will have to become smarter with the adoption of smart technologies. Online retailers too would require constant innovations and coming up with programs to increase customer engagement. In addition to this, the platforms have to ensure the safety and security of personal and financial details of customers shopping on their websites by adopting suitable monitoring measures. This would boost the confidence of both

existing customers as well as first time users to make purchases online and in turn would enhance customer trust.

VII. REFERENCES

- [1]. Amazon services. (n.d.). What is 'Local shops on Amazon'? Retrieved from <https://services.amazon.in/services/sell-on-amazon/local-shops.html>
- [2]. Bain & Company (2020). How India shops online. Retrieved from https://www.bain.com/globalassets/noindex/2020/bain_report_how_india_shops_online.pdf
- [3]. Halan, D. (March 25, 2020). Impact of COVID-19 on online shopping in India. Retrieved from <https://retail.economictimes.indiatimes.com/retails/impact-of-covid-19-on-online-shopping-in-india/4115>
- [4]. IBEF. (May, 2019). E-Commerce. Retrieved from https://www.ibef.org/download/E-Commerce_Report-May-2019.pdf
- [5]. Poojary, T., & Krishna, V. (July 9, 2020). How COVID-19 brought about the significance of e-commerce in India
- [6]. UNCTAD. (2020). COVID-19 and E-Commerce: Impact on Businesses and Policy Responses. Retrieved from https://unctad.org/system/files/official-document/dtlstictinf2020d2_en.pdf