E-Commerce Website on Identified Critical Factors of Online Service during an Unprecedented Coronavirus (COVID - 19) Pandemic

Rishabh Kohale[1], Ishan Ajmeri[2], Animesh Gaharwar[3], Siddharth Bhavsar[4], Prof. A. M. Chadchankar[5]

Students, Department of Computer Engineering[1,2,3,4]

Guide, Department of Computer Engineering[5]

NBN Sinhgad School of Engineering, Pune, Maharashtra, India

Abstract: *In the past few years, we can notice a rapid change in technology. Technological changes in every industry have contributed a significant amount of difference, which result in customer advancement towards the services. More than half of the world's 4.5 billion people have access to the internet, the era of the internet and technology has made the evolution in the E -commerce market. The impact of e-commerce is phenomenal, the number of consumers purchasing online has increased gradually with the increased use of the internet. Customers are too busy nowadays to go and purchase goods by going to the market.*

Keywords: Ecommerce, Customer Satisfaction, Quality Assurance, Tech Tool Automation, Urban Approach

I. INTRODUCTION

E-commerce has grown at an exponential rate during the unprecedented outbreak of the COVID-19 (Barnes, 2020; Sheth, 2020). Many companies, including small businesses have recognized the potential of selling their products through the Internet. COVID-19 has accelerated the shift towards a more digital world (Sheth, 2020). It led to the expansion of e-commerce transactions, ranging from luxury goods and services to everyday necessities. E-commerce has increased across different product categories during the pandemic. More online users are using digital and mobile technologies to search about products or services . They may be intrigued to finalize their online transactions and make a purchase, if they perceive that the service quality of the online business would meet and exceed their expectations (Flanagin, Metzger, Pure, Markov and Hartsell, 2014; Rajamma, Paswan and Ganesh, 2007).

WEF (2020) reported that there was a significant increase in online purchases relating to grocery items, information and communications technologies or electronics, gardening or do-it- yourself, pharmaceuticals, education, furniture or household as well as cosmetics or personal care products, among other items. Several consumers from advanced and developing countries have also increased the frequency of their online purchases (UNCTAD, 2020). COVID-19 has shifted consumer demand from brick-and-mortar retail to e-commerce (Barnes, 2020). The pandemic's preventative measures have led individuals to follow social distancing procedures and to limit their physical interactions with other persons, to curb the spread of the contagion (Camilleri, 2021). In a similar vein, consumers were encouraged to avoid crowded stores and to utilize the internet to procure everyday items (OECD, 2020).

II. LITERATURE SURVEY

[1] Pooja Mahindrakar, Uma Pujeri, "Insights of JSON Web Token". International Journal of Recent Technology and Engineering. Michael Aldrich was an English entrepreneur who invented online shopping in 1979. E -commerce is a process of selling and buying goods online. E-commerce is classified into a few types such as; business to business, business to customer, customer to the business, and customer to customer.

[2] Tobias Andersson and Håkan Reinholdsson, "REST API vs GraphQL - A literature and experimental study" Kristianstad University Sweden. GraphQL is a novel query language for implementing service-based software architectures. The language is gaining momentum and it is now used by major software companies, such as Facebook and GitHub. However, we still lack empirical evidence on the real gains achieved by GraphQL, particularly in terms of the effort required to implement queries in this language.
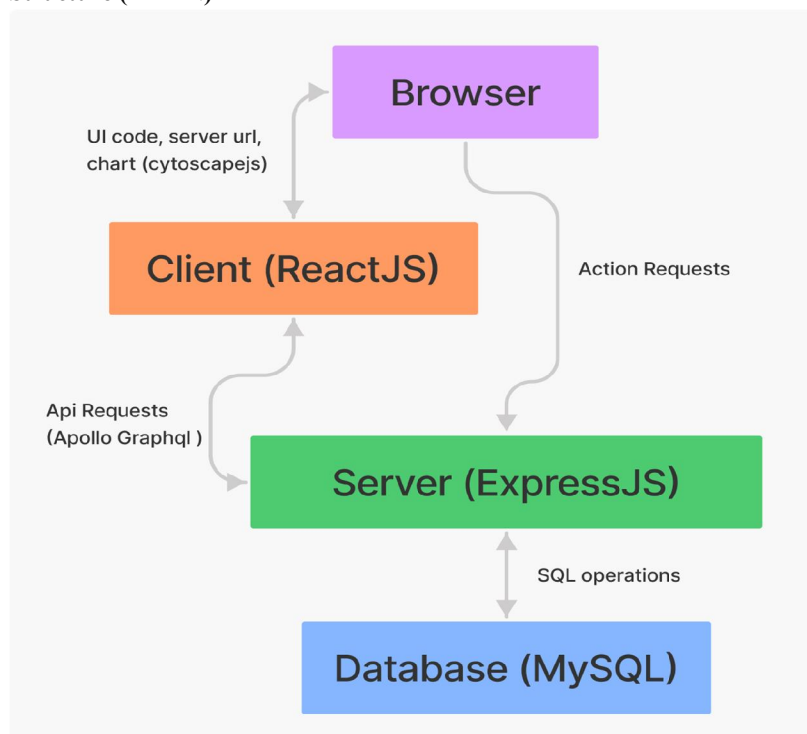
[3] Rithika Sirvi, Gundla Ranga Ramu, Varun Revelli, Gv Santosh Kumar, Dr Chandra Sekhar Pattnaik, "The Role of E-commerce on Customer Engagement in 2021", International Journal of Scientific Development and Research.E-commerce is different from traditional shopping. Online websites can feature a wide array of products. They are easily accessible, functional and convenient without the restrictions of time and space (Barrera and Carrión, 2014; Chang and Wang, 2011). Typically, online users can Electronic copy available at: https://ssrn.com/abstract=3853156easily compare the attributes, features and prices of different products through their personal computers or mobile devices.

[4] Mark Anthony Camilleri, "E-commerce websites, consumer order fulfillment and after-sales service satisfaction", University of Edinburgh, Scotland. The data was collected from 430 online users who were members of two popular social media groups. A structured questionnaire was used to investigate their perceptions and attitudes about online shopping experiences during COVID-19. This study's objectives are threefold: Firstly, it presents a critical review of the literature that is focused on the service quality of e-commerce websites. Secondly, it puts forward a theoretical model that consists of measures that were tried and tested in academia. This research reveals the validity and reliability of the proposed research model. Thirdly, it identifies the implications of this contribution to academia and practitioners.

III. IMPLEMENTATION

This provides the architecture of the system that will be developed by our hands. It consists of two parts: frontend and backend where the execution starts from building backend based on the frontend requirements. So the designing phase will come first then listing out all the necessary features to be built and compatibility with utilized packages. After that both the end's can be built simultaneously and can be linked on the go so that all the tests are passed successfully. Features will involve listings and order flow along with payment gateway functionality. Testing will be done in automated form.

3.1 Proposed Stack Structure (MERN)

The outlook of e-commerce has completely changed in India, India is on road to digital development. Value-added innovation in e-Commerce is the key, change in technological trends lead to digital development. Streamlined logistics, modes of delivery made things easier for eCommerce. The payment gateway is the smooth process for customers, easy return and exchange has attracted a lot of customers to e-commerce. Customer services have been a prime most priority for e-commerce, adding services like 24/7 chat support has grabbed the attention and solved the major customer related issues.

The major companies are using artificial intelligence to share better customer engagement. Companies like Flipkart, myntra, amazon are building their own software's to run the system with proper flow.

Quality assurance is extremely important for every e-commerce website to maintain the quality check regarding the terms of product or services for the exact purpose of assuring the customers of the safety, security, and loyalty to them. this actively demonstrates that a right attempt of quality assurance leads to more identification and guarantee of the brands. for instance, snapdeal went into losses for the reason of selling fake products at cheap rates, with intention of grabbing customers' attraction towards their cheap deals, but rather than failing that mission, the particular reason for this circumstance is that most of the customers prefer quality over price.

V. CONCLUSION AND DISCUSSION

Due to pandemic situations many business owners are trying to shift towards online medium.E-commerce still represents one of the business methods that take advantage if done the right way, even if the stock market and commodities fell, but E-Commerce is still able to survive and receive high transaction. E-commerce has a tremendous opportunity in the course of our business in Malaysia. In addition, it is also to introduce new techniques and styles in a transaction. Using the extensive E-Commerce in the Internet world is actually much better to bring the goodness of the individual or the state. Moreover, E-Commerce is a helpful technology that gives the consumer access to business and companies all over the world.

REFERENCES

[1]. Kapsoinow, S. April 15,1999. Using fulfilment services for E-commerce. E-commerce Guide URL:http://www.interney.com

[2]. 2. Muhammad Talha. 2003. Role of E-commerce in economic growth. Journal of Internet Marketing.

[3]. URL: http://www.arraydev.com/commerce/ijm/Role Of Ecommerce.htm

[4]. E-commerce Management Program URL: http://www.ecmtraining.com/sgsu

[5]. E-commerce Summit. URL:http://www.e-commerce-summit.com

[6]. Facebook Inc., "GraphQL specification (draft)," https://facebook.github.io/graphql/draft/, 2015, [accessed 02-April-2019].

[7]. R. T. Fielding and R. N. Taylor, "Principled design of the modern Web architecture," ACM Transactions on Internet Technology (TOIT), vol. 2, no. 2, pp. 115–150, 2002.

[8]. "Principled design of the modern web architecture," in 22nd International Conference on Software Engineering (ICSE), 2000, pp. 407–416.

[9]. R. T. Fielding, "Architectural styles and the design of network-based software architectures," Ph.D. dissertation, University of California, 2000.

[10]. Muhamad Haekal,Eliyane ,"Token based authentication using Json web-token on SIKASIR RESTful web service". International Conference on Informatics and Computing (ICIC) IEEE(2016)