P-ISSN: 2204-1990; E-ISSN: 1323-6903 DOI: 10.47750/cibg.2020.26.02.126

A study on website quality and its impact on customer satisfaction with reference to ecommerce companies

D. KRISHNAMOORTHY¹, R.P. VIGRAM²

¹Assistant Professor, Saveetha School of Management, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamilnadu, India

²MBA Student, Saveetha School of Management, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamilnadu, India

Email ID: krishnamoorthyd.ssm@saveetha.com, vigrampandurangan@gmail.com

Abstract: Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Consumers find a product of interest by visiting the website of the retailer directly or by searching among alternative vendors using a shopping search engine, which displays the same product's availability and pricing at different e-retailers. As of 2020, customers can shop online using a range of different computers and devices, including desktop computers, laptops, tablet computers and smartphones. An online shop evokes the physical analogy of buying products or services at a regular "bricks-and-mortar" retailer or shopping center; the process is called business-to-consumer (B2C) online shopping. When an online store is set up to enable businesses to buy from another businesses, the process is called business-to-business (B2B) online shopping. This Study explains how the customer gets satisfied with the quality of online shopping websites. we collected various response from 201 respondents based on the satisfaction with website quality of ecommerce websites.

Keywords: Website Quality, Innovation, Customer Satisfaction, Entrepreneurship, E Commerce, Online Shopping etc.

INTRODUCTION

Theoretical framework: The increased competition in all sectors due to globalization has forced the companies to reduce business costs. To reduce cost the companies are forming new management strategies like supply chain management and e- logistics. E- logistics means applying the concept of logistics electronically via the internet in order to conduct the business electronically. According to AMR Research (Challenger,2001), E- logistics helps to reduce cost by 10%. According to Sahay,B.S.(2003) logistics contribute to 10 to 12% of GDP. Based on two references e-logistics helps to save about 1.2% of GDP. That is why the companies like Dell, Compaq, Hewlett Packard is favourable to the E- logistics and supply chain management.

E- commerce logistics are the activities that ensures that customers get what they need at right time at right place and at minimum cost. E-commerce logistics face many challenges in developing countries like higher tariffs, Complicated global trade rules, Global Terrorism and Geographical Barriers. The lack of knowledge of total cost in online merchant is the main cause for the failure of many electronic commerce in past decades. India has an internet user's base of about 450 million as of July 2017, 40% of the population. Despite being the second-largest user base in world, only behind China (650 million, 48% of population), the penetration of e-commerce is low compared to markets like the United States (266 million, 84%), or France (54 M, 81%), but is growing at an unprecedented rate, adding around 6 million new entrants every month. According to a study conducted by the Internet and Mobile Association of India, the e-commerce sector is estimated to reach Rs. 1211,005 crores by December 2016.

According to a study done by Indian Institute of e-commerce, by 2020 India is expected to generate \$100 billion online retail revenue. Online electronics and apparel sales are set to grow four times in coming years. India's retail market is estimated at \$470 billion in 2011 and is expected to grow to \$675 Billion by 2016 and \$850 billion by 2020, – estimated Compound Annual Growth Rate of 10%. According to Forrester, the e-commerce market in India grew the fastest within the Asia Pacific Region at a CAGR of over 57% between 2012–16. Overall e-commerce market had reached Rs 1,07,800 crores (US\$24 billion) by the year 2017 with both online travel and detailing contributing equally. Online sales of luxury products like jewellery also increased over the years. Most of the retail brands have also started entering into the market and they expect at least 20% sales through online in next 2–3 years.

A typical online store enables the customer to browse the firm's range of products and services, view photos or images of the products, along with information about the product specifications, features and prices. Online stores usually enable shoppers to use "search" features to find specific models, brands or items. Online customers must

Copyright © The Author(s) 2020 . Published by *Society of Business and management*. This is an Open Access Article distributed under the CC BY license. (http://creativecommons.org/licenses/by/4.0/)

D. Krishnamoorthy et al / A study on website quality and its impact on customer satisfaction with reference to ecommerce companies

have access to the Internet and a valid method of payment in order to complete a transaction, such as a credit card, an Interac-enabled debit card, or a service such as PayPal. For physical products (e.g., paperback books or clothes), the e-tailer ships the products to the customer; for digital products, such as digital audio files of songs or software, the e-tailer usually sends the file to the customer over the Internet. The largest of these online retailing corporations are Alibaba, Amazon.com, Flipkart and eBay.

Our research idea is based on the rich knowledge acquired by our peer teams across the university. (A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiqc, Rajeshkumar, 2020; Danda et al., 2009; Danda and Ravi, 2011; Dua et al., 2019; Ezhilarasan et al., 2019; Krishnan and Chary, 2015; Manivannan, I., Ranganathan, S., Gopalakannan, S. et al., 2018; Narayanan et al., 2012, 2009; Neelakantan et al., 2013, 2011; Neelakantan and Sharma, 2015; Panchal et al., 2019; Prasanna et al., 2011; Priya S et al., 2009; Rajeshkumar et al., 2019; Ramadurai et al., 2019; Ramakrishnan et al., 2019; Ramesh et al., 2016; Venugopalan et al., 2014)

Currently we are working on "A Study on website quality and its impact on customer satisfaction with reference to E-commerce companies".

REVIEW OF LITERATURE

(Lin, 2007) study proposes a research model for understanding the influences of website quality dimensions (system quality, information quality, and service quality) on customer satisfaction. Two system quality variables (website design and interactivity), two information quality variables (informativeness and security), and three service quality variables (responsiveness, trust, and empathy) are identified as critical variables that have an impact on customer satisfaction. Confirmatory factor analysis was conducted to test the validity of the measurement model, and the structural model also was analyzed to examine the associations hypothesized in the research model. The analytical results showed that website design, interactivity, informativeness, security responsiveness, and trust affect customer satisfaction, while empathy does not have a statistically significant effect on customer satisfaction. Overall, system quality, information quality, and service quality are important antecedents of customer satisfaction.

(Liang and Chen, 2009) study develops and empirically tests a model examining the relations between website quality, customer satisfaction, customer trust and customer relationship length, depth and breadth with the online financial services. If a website has high information, system and service quality, customers may have greater willingness to maintain, deepen and broaden their relationship with a particular online service provider. this study concludes that website information quality is the most important factor in enhancing relationship length, while website system quality and service quality contribute a lot to relationship depth and breadth. (Durkasree and Ramesh, 2011)

In this ICT age, we have witnessed a substantial growth of internet based services. One of the key challenges of the online as a service delivery channel is how they manage service quality, which holds a significant importance to customer satisfaction. The purpose of this study was to gain a better understanding of the service quality dimensions that affect customer satisfaction in online marketing from a customer perspective. Exploratory factor analysis was conducted to narrate the important service quality factors in online marketing. This study identifies seven service quality dimensions having a strong impact on customer satisfaction.

(Al Karim and Assistant Professor, Business Administration, East Delta University, Bangladesh, 2013)

This study endeavours to understand customer satisfaction in online shopping while investigating the major reasons that motivated customers' decision-making processes as well as inhibitions of online shopping. The Kotler and Killers (2009) Five Stage Buying Process Model was chosen as the basis of framework of this study to explain customer satisfaction through their motivations to buy products online. The existing literature was reviewed to discover reasons that would influence customers positively or negatively towards shopping online. Surveys were conducted by distributing questionnaires to gather data for this research. SPSS software package was used to present research data graphically and to test research hypothesis. From the findings, it was discovered that respondents use internet to purchase products through online because they believe it is convenience to them and the term convenient includes elements such as time saving, information availability, opening time, ease of use, websites navigation, less shopping stress, less expensive and shopping fun. In contrast, along with respondents' mind-sets, online payment security, personal privacy and trust, unclear warranties and returns policies and lack of personal customer service are the foremost barriers of online shopping. Furthermore, the result of hypotheses established that even though online shopping is convenient to all consumers, online payment system and privacy or security anxieties have significant impact on online shopping. Finally, some recommendations have been offered for online retailers to take initiatives for making online shopping more admired and trustworthy. (Rov and Venkateswaran, 2014)

A rapid growth in E-Commerce market is seen in recent time throughout the world. With ever increasing popularity of online shopping, Debit or Credit card fraud and personal information security are major concerns for customers, merchants and banks specifically in the case of CNP. This paper presents a new approach for providing limited information only that is necessary for fund transfer during online shopping thereby safeguarding customer data and increasing customer confidence and preventing identity theft. The method uses combined

D. Krishnamoorthy et al / A study on website quality and its impact on customer satisfaction with reference to ecommerce companies

application of stenography and visual cryptography for this purpose. (Rajeswari, 2015)

Purpose of this study is to understand the factors influencing customers' online shopping decisions and how these factors affect customer satisfaction. Descriptive Research Design has been used for this study. A well-structured questionnaire was designed and administered to collect samples across Chennai. Due to the need for a variety of respondents who have had previous experience with online shopping, judgment sampling technique was chosen. After collecting the data, the data was classified, tabulated and codified. Necessary statistical tools such as Percentage Analysis and Chi Square tests have been used to interpret the data. The results of this study may be of great use to businesses which are looking to expand into or venture into the online shopping environment. (Tamilarasi and Angayarkanni, 2016)

The purpose of this study is to analyse factors affecting on e- shopping behaviour of working women in Chennai city that might be one of the most important issues of e-commerce and marketing field. However, there is very limited knowledge sabout online consumer behaviour for women because it is a complicated socio-technical phenomenon and involves too many factors. One of the objectives of this study is covering the shortcomings of previous studies that didn't examine main factors that influence on online shopping behaviour for working women. Purchasing items and products through the web is a very easy task to do. It is now playing a very important role in everybody's life especially working women with a very busy life schedule. This goal has been followed by using a model examining the impact of perceived risks, infrastructural variables and return policy on attitude toward online shopping behaviour and subjective norms, perceived behavioural control, domain specific innovativeness and attitude on online shopping behaviour as the hypotheses of study. (Kumar, 2016)

The present paper provides some useful insights on consumers' purchasing intention and behavior. In addition, a conceptual model has been proposed to describe the antecedents and consequences of customer satisfaction. A comparative study has been done for identifying and analyzing the key factors influencing the consumers' purchasing behavior on the basis of online shopping of certain electronic gadgets on some e-commerce websites of India. The assessment of online shopping attitudes has been made on the basis of ratings and reviews provided by the customers to the products of the e-commerce. Implications of the findings have been discussed.

(Kumar and Shenbagaraman, 2017)

This paper deals with customer's perception of online banking and e-service quality and its influence on customer satisfaction. The quantitative research design is used for this study. The study was conducted using self administered questionnaire. The sampling method used for the study is random sample method. The study was conducted in Chennai City of India. The factor analysis and multiple regressions were used to analyse the data. The findings from this study reveal that the variables compensation and recovery, access, personalisation and assurance play a major role in online banking service quality. Also, the study reveals that the customer satisfaction leads to customer loyalty. Due to technological advancements in India, the internet availability and the internet usage is increased largely. The internet medium is rapidly changing the traditional face to face banking to online banking. To study the quality of the bank, it is necessary to study the e-service quality of banks. classified, tabulated and codified. Necessary statistical tools such as Percentage Analysis and Chi Square tests have been used to interpret the data. The results of this study may be of great use to businesses which are looking to expand into or venture into the online shopping environment.

(Rita et al., 2019)

The purpose of this study is to develop new knowledge to better understand the most important dimensions of eservice quality that have impact on customer satisfaction, customer trust, and customer behavior, building on existing literature on e-service quality in online shopping. This study focuses on the four-dimensions of e-service quality model that better predict customer behavior. It not only tests the impact of customer satisfaction on customer behavior such as repurchase intention, word of mouth, and site revisit, but also the impact of customer trust. The result is expected to extend the knowledge about different country culture with different relevance of eservice quality attributes.

(Biswas et al., 2019))

Customer satisfaction towards online shopping can significantly be influenced by website service quality, hence many of the previous studies set up to show the relationship between website service quality and customer satisfaction. But still, limited literature has been focused on the mediating effects of the confirmation of customer expectation on the relationship between website service quality and customer satisfaction. Hence, the aim of this study is to measure customer satisfaction based on the website service quality with confirmation of customer expectation. Therefore, it is important to measure customer satisfaction towards online shopping, since satisfied customers will make repetitive purchases and provide recommendations to others, thus generating the profit for a particular e-commerce company.

(Durairaj and Joseph, n.d.)

The methods and techniques used for online marketing include email, social media, display advertising, search engine optimization, and more. The objective of online marketing is to reach potential customers through the

D. Krishnamoorthy et al / A study on website quality and its impact on customer satisfaction with reference to ecommerce companies

channels where they spend time reading, searching, shopping, or socializing online. Widespread adoption of the Internet for business and personal use has generated many new channels for advertising and marketing engagement, including those mentioned above. There are also many benefits and challenges inherent with online marketing, which uses primarily digital mediums to attract, engage, and convert virtual visitors to customers.

(Viswanathan and Gupta, 2020)

The emergence of online life insurance in recent years has provided consumers with flexibility and ease of taking an insurance policy besides making it imperative for firms to consistently formulate strategies to ensure customer satisfaction and loyalty in future. In this respect, the present study examines the linkages between service quality, satisfaction, loyalty and switching costs in the context of online life insurance. Using survey methodology, responses pertaining to the aforesaid constructs are obtained. Though significant variations are not revealed in customers' perceptions across demographic groups, but it establishes mediating role of satisfaction and the moderating role of switching costs along with the significant impact of service quality in influencing loyalty behaviour. It provides theoretical as well as practical implications for the service providers. The paper ends with acknowledging the limitations and outlines the directions for undertaking further research in this pertinent domain.

SUMMARY OF FINDINGS FREQUENCY ANALYSIS:

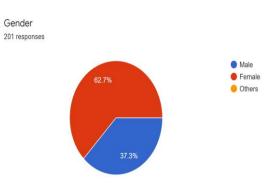
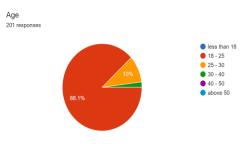
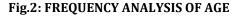


Fig.1: - frequency analysis of gender

Figure 1 shows the majority of the respondents are male (37.3%) followed by female (62.7%).





The figure 2 shows the majority of the respondents are those whose age group lies between 18-25 years old (88.1%), followed by the age group which lies between below 25-30 years old (10.0%) and followed by 30 to 40 years old (2%).

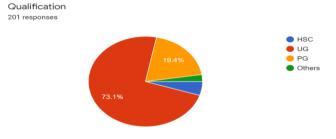


Fig. 3 : - FREQUENCY ANALYSIS OF QUALIFICATION

The figure 3 shows the majority of the respondents hold a Bachelor's degree (73.1%) followed by Master's degree (19.4%), Higher Secondary Education (5.0%) and Others (2.5%).

D. Krishnamoorthy et al / A study on website quality and its impact on customer satisfaction with reference to ecommerce companies

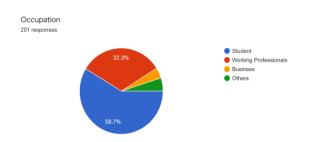


Fig.4: - FREQUENCY ANALYSIS OF EMPLOYMENT

The fig. 4 of employment of the respondents. It is clear from the table that majority of the respondents work in College Students (58.7%), followed by Working Professional (32.3%), other category (5.0%), Business (4%). It is inferred from the table that majority of respondents are College Students.



Fig. 5 : FREQUENCY ANALYSIS OF EXPERIENCED IN ONLINE SHOPPING

The fig. 5 shows the majority of the respondent's have agreed that they experienced (97.5%), and the other respondents have agreed that they do not experienced (2.5%).

MEAN ANALYSIS:

The Table 1 shows that mean analysis of website service quality of e-commerce shopping industry. It is clear from the table that relevant content found in online shopping website has highest mean value of (3.30%) followed by style of the website which suits our expection (3.29%), Worked in different browser (3.29%), content concise (3.25%), text size (3.23%), page link found easily (3.199%), information found easily (3.199%), overall design (3.18%), colour contrast of website (3.17%), availability of search button (3.16%), mobile compatibility (3.16%), relevant keywords (3.13%), style consistency (3.13%), coding efficient (3.11%), site map (3.11%), image optimization (3.10%), font readability (3.09%), regular usage (3.08%), payment transactions (3.08%), website style (3.05%), information security (3.00%), loading time (2.8%) and bored in waiting (2.66%).

VARIABLES	Mean	Rank
The content are relevant to the reader.	3.3	1
the style suits your expectation.	3.29	2
The website work in different browsers.	3.29	2
The content concise yet still useful.	3.25	4
The text are in appropriate size.	3.23	5
The information be found easily.	3.2	6
All the links in the pages are working accurately.	3.2	6
The overall design make content easy to find.	3.18	8
There is considerable contrast between the font color in the background color.	3.17	9
There is a search button available for you.	3.17	9
The website work on all mobile devices.	3.16	11
The style is consistent throughout the entire website.	3.13	12
The relevant keywords being used in title tags, heading tags, meta-descriptions, etc.	3.13	12
The coding are efficient and the extra lines that can be eliminated.	3.11	14
There is a site map of the organization.	3.11	14
There are any photos or decorative touches that are getting in the way of the message.	3.1	16
The images are optimized with ALT tags	3.1	16

D. Krishnamoorthy et al / A study on website quality and its impact on customer satisfaction with reference to ecommerce companies

The fonts are of been chosen easy to read.	3.09	18
All the payment option is working accurately in the website.	3.09	18
you Visit the websites in Regular basics	3.08	20
The Information Which is being Collected are Secured by the E Commerce Companies.	3.08	20
The website's style align with the brand in terms of color, graphics, feel, etc.	3.05	22
You are feeling secure in saving the Banking Details with E-Commerce websites.	3.01	23
it take huge time for pages to load the full content.	2.84	24
You get bored in waiting while the page is getting loaded.	2.66	25

T-TEST ANALYSIS:

The table 2 shows the independent t-test analysis of gender VS Customer satisfaction. It is visible that the 'p' value for aesthetic (1.075%), SEO and social networking (1.866%), content and readability (1.416%) and usability (1.991%) is greater than 0.05 which means that there is no significant difference between the gender with respect to the customer satisfaction.

S.NO	FACTOR	T-VALUE	SIGNIFICANCE
1	AESTHETIC	1.075	0.284
2	SEO & SOCIAL NETWORKING	1.866	0.064
3	CONTENT & READABILITY	1.416	0.159
4	USABILITY	1.991	0.048

ONE WAY ANOVA ANALYSIS: AGE VS AESTHETIC:

The table 3 shows the one-way anova analysis of aesthetic with reference to age. From the analysis it is clear that both the 'p' values of customer satisfaction (.151) are greater than 0.05. It is interpreted that there is no significance difference among the age with respect to customer satisfaction.

Table 3: ANOVA ANALYSIS OF AGE VS AESTHETIC

S.NO	FACTORS	F-VALUE	SIGNIFICANCE VALUE
1	AESTHETIC	1.910	.151

AGE VS SEO AND SOCIAL NETWORKING:

The Table 4 shows the one-way anova analysis of age VS SEO and social networking. From the analysis it is clear that seo and social networking (0.026%) which is less than 0.05. It is proved that these variable is effected by customer satisfaction.

Table 4: ANOVA ANALYSIS OF AGE VS SEO AND SOCIAL NETWORKING

S.NO	FACTORS	F-VALUE	SIGNIFICANCE VALUE
1	SEO AND SOCIAL NETWORKING	3.727	0.026

AGE VS CONTENT AND READABILITY:

The table 5 shows the one-way anova analysis of age with reference to content and readability. From the analysis it is clear that both the 'p' values of customer satisfaction (.731) are greater than 0.05. It is interpreted that there is no significance difference among the age with respect to customer satisfaction.

Table 5: ANOVA ANALYSIS OF AGE VS CONTENT AND READABILITY

S.NO	FACTORS	F-VALUE	SIGNIFICANCE VALUE
1	CONTENT AND READABILITY	0.314	0.731

AGE VS USABILITY:

The table 6 shows the one-way anova analysis of age with reference to usability. From the analysis it is clear that both the 'p' values of customer satisfaction (.731) are greater than 0.05. It is interpreted that there is no significance difference among the age with respect to customer satisfaction.

Table 6: ANOVA ANALYSIS OF AGE VS USABILITY

S	S.NO	FACTORS	F-VALUE	SIGNIFICANCE VALUE
1		USABILITY	1.101	0.731

SUGGESTIONS:

The above study is to showcase and illustrate how the online shopping websites influence the customer satisfaction in recent days. Due to many various factors the customers gets satisfied and also not satisfied. Improving the main drawbacks can improve the 99% of customer satisfaction effectively. This research should be carried out in order to enhance the execute the objectives of the concepts of service quality and customer satisfaction on e-commerce shopping industry.

CONCLUSION

In Chennai city most of the people feels satisfied using online shopping websites because of its salient features. This study clearly shows that there is positive relationship between the website characteristics and attitude, trust and intention towards online websites. Trust is however also quite important to online shoppers. Strategies, such as information about the product, payment security, money-back guarantee, past experience using this product-brand, and buying a well-known brand, over personal risk reduction strategies, such as information from family and friends, comments on the Internet, website loyalty, and possibility of communicating with a salesperson (by phone or mail) should be developed by the online websites. Among that website loyalty, Possibility of communicating with a salesperson (by phone or mail), Choose the secured mode of payment, Past online shopping experience, are the five most probable strategies for consumers to use online shopping websites on the Internet. Adopters of online shopping are predominantly College Student and well educated peoples. Majority of the online buyers purchases regularly.

REFERENCES

- 1. A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiqc, Rajeshkumar, 2020. Anticancer activity of silver nanoparticles synthesized using aqueous fruit shell extract of Tamarindus indica on MCF-7 human breast cancer cell line. J. Drug Deliv. Sci. Technol. 55.
- Al Karim, R., Assistant Professor, Business Administration, East Delta University, Bangladesh, 2013. Customer Satisfaction in Online Shopping: a study into the reasons for motivations and inhibitions. IOSR j. bus. manag. 11, 13–20.
- 3. Biswas, K.M., Nusari, M., Ghosh, A., 2019. The Influence of Website Service Quality on Customer Satisfaction Towards Online Shopping: The Mediating Role of Confirmation of Expectation. International Journal of Management Science and Business Administration 5, 7–14.
- 4. Danda, A.K., Ravi, P., 2011. Effectiveness of postoperative antibiotics in orthognathic surgery: a metaanalysis. J. Oral Maxillofac. Surg. 69, 2650–2656.
- 5. Danda, A.K., S, R., Chinnaswami, R., 2009. Comparison of gap arthroplasty with and without a temporalis muscle flap for the treatment of ankylosis. J. Oral Maxillofac. Surg. 67, 1425–1431.
- Dua, K., Wadhwa, R., Singhvi, G., Rapalli, V., Shukla, S.D., Shastri, M.D., Gupta, G., Satija, S., Mehta, M., Khurana, N., Awasthi, R., Maurya, P.K., Thangavelu, L., S, R., Tambuwala, M.M., Collet, T., Hansbro, P.M., Chellappan, D.K., 2019. The potential of siRNA based drug delivery in respiratory disorders: Recent advances and progress. Drug Dev. Res. 80, 714–730.
- 7. Durairaj, D., Joseph, P., n.d. A STUDY ON CUSTOMER SATISAFACTION ON ONLINE MARKETING IN CHENNAI CITY. pramanaresearch.org.
- 8. Durkasree, P., Ramesh, M., 2011. Service quality in online marketing: Customers centric analysis. Perspectives of Innovations, Economics, and Business 7, 27–34.
- 9. Ezhilarasan, D., Apoorva, V.S., Ashok Vardhan, N., 2019. Syzygium cumini extract induced reactive oxygen species-mediated apoptosis in human oral squamous carcinoma cells. J. Oral Pathol. Med. 48, 115–121.
- 10. Krishnan, R., Chary, K.V., 2015. A rare case modafinil dependence. J. Pharmacol. Pharmacother. 6, 49-50.
- 11. Kumar, G., Shenbagaraman, V.M., 2017. A study on customer's perception of online banking and e-service quality among Chennai customers. International Journal of Business Excellence 11, 72–94.
- 12. Kumar, M., 2016. CONSUMER BEHAVIOR AND SATISFACTION IN E-COMMERCE: A COMPARATIVE STUDY BASED ON ONLINE SHOPPING OF SOME ELECTRONIC GADGETS. CLEAR International Journal of Research in.
- 13. Liang, C.-J., Chen, H.-J., 2009. A study of the impacts of website quality on customer relationship performance. Total Qual. Manage. Bus. Excel. 20, 971–988.
- 14. Lin, H.-F., 2007. The Impact of Website Quality Dimensions on Customer Satisfaction in the B2C Ecommerce Context. Total Qual. Manage. Bus. Excel. 18, 363–378.
- Manivannan, I., Ranganathan, S., Gopalakannan, S. et al., 2018. Mechanical Properties and Tribological Behavior of Al6061–SiC–Gr Self-Lubricating Hybrid Nanocomposites. Trans Indian Inst Met 71, 1897– 1911.
- 16. Narayanan, V., Kannan, R., Sreekumar, K., 2009. Retromandibular approach for reduction and fixation of mandibular condylar fractures: a clinical experience. Int. J. Oral Maxillofac. Surg. 38, 835–839.

D. Krishnamoorthy et al / A study on website quality and its impact on customer satisfaction with reference to ecommerce companies

- 17. Narayanan, V., Ramadorai, A., Ravi, P., Nirvikalpa, N., 2012. Transmasseteric anterior parotid approach for condylar fractures: experience of 129 cases. Br. J. Oral Maxillofac. Surg. 50, 420–424.
- 18. Neelakantan, P., John, S., Anand, S., Sureshbabu, N., Subbarao, C., 2011. Fluoride release from a new glassionomer cement. Oper. Dent. 36, 80–85.
- 19. Neelakantan, P., Sharma, S., 2015. Pain after single-visit root canal treatment with two single-file systems based on different kinematics--a prospective randomized multicenter clinical study. Clin. Oral Investig. 19, 2211–2217.
- 20. Neelakantan, P., Subbarao, C., Sharma, S., Subbarao, C.V., Garcia-Godoy, F., Gutmann, J.L., 2013. Effectiveness of curcumin against Enterococcus faecalis biofilm. Acta Odontol. Scand. 71, 1453–1457.
- Panchal, V., Jeevanandan, G., Subramanian, E.M.G., 2019. Comparison of post-operative pain after root canal instrumentation with hand K-files, H-files and rotary Kedo-S files in primary teeth: a randomised clinical trial. Eur. Arch. Paediatr. Dent. 20, 467–472.
- Prasanna, N., Subbarao, C.V., Gutmann, J.L., 2011. The efficacy of pre-operative oral medication of lornoxicam and diclofenac potassium on the success of inferior alveolar nerve block in patients with irreversible pulpitis: a double-blind, randomised controlled clinical trial. Int. Endod. J. 44, 330–336.
- 23. Priya S, R., Krishnan, C., S, J.R., Das}, J., 2009. Growth and characterization of NLO active lithium sulphate monohydrate single crystals. Crystal research and technology 44, 1272–76[°].
- Rajeshkumar, S., Menon, S., Venkat Kumar, S., Tambuwala, M.M., Bakshi, H.A., Mehta, M., Satija, S., Gupta, G., Chellappan, D.K., Thangavelu, L., Dua, K., 2019. Antibacterial and antioxidant potential of biosynthesized copper nanoparticles mediated through Cissus arnotiana plant extract. J. Photochem. Photobiol. B 197, 111531.
- 25. Rajeswari, M., 2015. A study on the customer satisfaction towards online shopping in Chennai City. International Journal of Sales & Marketing Management Research and Development 5, 1–10.
- Ramadurai, N., Gurunathan, D., Samuel, A.V., Subramanian, E., Rodrigues, S.J.L., 2019. Effectiveness of 2% Articaine as an anesthetic agent in children: randomized controlled trial. Clin. Oral Investig. 23, 3543– 3550.
- 27. Ramakrishnan, M., Dhanalakshmi, R., Subramanian, E.M.G., 2019. Survival rate of different fixed posterior space maintainers used in Paediatric Dentistry A systematic review. Saudi Dent J 31, 165–172.
- 28. Ramesh, A., Varghese, S.S., Doraiswamy, J.N., Malaiappan, S., 2016. Herbs as an antioxidant arsenal for periodontal diseases. J Intercult Ethnopharmacol 5, 92–96.
- 29. Rita, P., Oliveira, T., Farisa, A., 2019. The impact of e-service quality and customer satisfaction on customer behavior in online shopping. Heliyon 5, e02690.
- Roy, S., Venkateswaran, P., 2014. Online payment system using steganography and visual cryptography. In: 2014 IEEE Students' Conference on Electrical, Electronics and Computer Science. ieeexplore.ieee.org, pp. 1–5.
- 31. Tamilarasi, S., Angayarkanni, R., 2016. A study on customer's e shopping behavior and satisfaction: special reference to working women in Chennai.
- 32. Venugopalan, S., Ariga, P., Aggarwal, P., Viswanath, A., 2014. Magnetically retained silicone facial prosthesis. Niger. J. Clin. Pract. 17, 260–264.
- 33. Viswanathan, P., Gupta, G., 2020. Quality-satisfaction-loyalty linkage and switching costs: findings in the context of online life insurance. International Journal of Business Excellence 21, 1–16.