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THE INFLUENCE OF WEBSITES QUALITY ON USERS E-LOYALTY IN THE ONLINE STORE

Ūsas A., Jasinskas E., Štreimikienė D.[*]

Abstract: The change caused by Industry 4.0 has fundamentally changed our leisure, learning, internet browsing and operations of organizations. The study is novel in its focus on the impact of website quality on consumer loyalty in an online store, specifically in the context of Industry 4.0. The objective of the article is to determine the impact of website quality on consumer loyalty in an online store. The data were obtained from 406 completed questionnaires from Lithuania website consumers. All research participants were introduced to the online store. The analysis is based on quantitative methodology, regression and statistical analyses were used. Based on the results it can be concluded that the implementation of website quality is a huge part of website store success. System quality had the biggest impact on consumer satisfaction. Consumer satisfaction had a significant impact on consumer loyalty towards the website. From a practical point of view, the research identifies that if website managers want to increase consumer satisfaction first, they have to invest into system quality.

Key words: Website store, loyalty, website quality

Introduction

With the change of technology, everyday life no longer seems impossible without information communication technology products (smartphones, computers and etc.) and the services that they provide. The number and demand for websites is constantly growing, which is due to the increasing relocation of business to the internet space. Improving the quality of websites by adapting to the wishes and needs of users, creating and forming a group of e-loyal users, is becoming one of the most important goals of websites today (Corejova et al., 2022).

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Studies on the impact of the quality of websites on consumers' e-loyalty make it possible to identify problematic sites on the website that repel the user from staying and returning to the same website again. Relevance is emphasized not only by the need to have the greatest possible number of e-loyal users, but also by the desire to improve and develop the theories and foundations of quality improvement. The general improvement of the quality of the website is a complex set of actions aimed at improving the quality so that the user returns to the website again. Currently, it is becoming much more difficult to define the quality requirements of a website, which would identify the effectiveness of websites and the impact on the e-loyalty of users. Many authors distinguish different methodologies for assessing the quality of a website. Some authors (Kaur et al., 2016; Maraqa et al., 2018, Ingaldi nad Ulewicz, 2018) focused on expressing consumer opinion when evaluating different elements of website qualityi (Kaur et al., 2016; Maraqa et al., 2018) focused on expressing consumer opinion when evaluating different elements of website quality. Other (Montazer 2018; Divayana and Sanjaya 2017; Tiantong and Tongchin, 2013) allows consumers results to be interpreted by researchers and presented in a systematized and grouped manner. Others (Kohavi and Longbotham, 2017; Roth et al., 2013) avoid interpretations, relying on numbers and their analysis. Part of the authors analyzes individual aspects, Putri and Pujani (2019) conducted a study aimed at determining the impact of the system, information, quality of service and the value received on the e-loyalty of consumers. Nadeem et al., (2015) conducted a study to determine the involvement of visitors to an online store in the activities of the website and social media. Often, in the context of the evaluation of the quality of websites, the e-loyalty of consumers is forgotten.

There is an increasing lack of research into the impact of direct website quality categories on the user's e-loyalty in the quality of websites and consumer e-loyalty methodologies. Thus, the problematic question can be raised, how to increase the e-loyalty of consumers by improving the quality of the website?

The aim of the work is to determine the influence of the quality of websites on the e-loyalty of consumers in the online store.

A review of the scientific literature focused on the influence of the quality of the website on the e-loyalty of consumers revealed that there is no single common methodology that can explain the importance of influence on all websites. Authors (Tardon, Kiran and Sah 2017; Giao et al., 2020; Santika et al., 2020; Azizi et al., 2020) in their research distinguish different research methodologies focused on the interpretation and assessment of the importance of interfaces. Methodologies tend to be aimed at measuring and interpreting one influence. Other authors (Aishatu and Lim 2017; Salah 2019; Sauro 2015) analyzes the influence on the e-loyalty of consumers or its expressions through various aspects of the quality of the website.

In the studies conducted by Almaaitah and Alhashem, (2019); Kouser et al., (2018); Chi, (2018), Vijayakumar, (2020) various restrictions and limitations of research are distinguished, which do not allow to achieve the maximum accurate results. In surveys, the most common emphasis is on the attitude of respondents to or against

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the brand, the insufficiency of the survey sample, the inadequacy of the survey to other websites or demographic groups of respondents.

Website Quality

Most often websites are studied from the side of information technology. An increase in the number of internet users and websites shows the need of managerial research. Every year the number of Internet users is growing. As the number of users grows, so does the number of websites. Today on the Internet you can find a lot and a variety of sites: distinguished by their design, information, technical parameters, or ease of use. A website is a collection of sites that reflect the content that its creator or administrator wants to convey. According to Salah (2019), the quality of websites and online shopping has improved dramatically over the past decade, and the Internet has become a critically needed tool in every business.

Setting up a contingent of users, selecting the typology of the website and and refining the structure are necessary components of a successful website. In order to attract and retain the user, a clear website type, basic structure and changes are not enough on their own (Kitsios et al., 2019) alone. For this, different methodologies for assessing the quality of websites are being developed.

Content quality. The quality of the content is often also called the quality of the information. Content Quality Representatives (Khwaldeh et al.,2017; Zhou et al., 2018) argues that content quality is a systematic element consisting of information, video, and audio quality. The quality of the content includes audio, video and text material provided on the website. According to (Khwaldeh et al.,2017; McLean, and Osei-Frimpong, 2017) categories of content quality assessment can be very numerous and diverse, the most common ones: accuracy, relevance, reliability, intelligibility.

System quality. The quality of the online system is studied in two ways. Through standardized tests, professional researchers, developers or administrators are carried out through methodologies for assessing the systemic quality of the website based on the knowledge of both consumers and researchers. When analyzing the scientific literature, it is noted that in the constructs most often reveal the categories of ease of use, design, structure, efficiency (Albayrak et al., 2019; Kot, 2023). The overall composition of the quality of the system is difficult to define, and in addition to the dimensions of ease of use, design, structure and efficiency, the categories of security and interactivity are often also assigned. These categories cannot be attributed only to the quality of the system, as they can be found in both the content and service quality categories. Also, in studies (Loureiro, 2015; January 2015; Albayrak et al., 2019) it can be noted that one or two categories of system quality are often used, i.e. it depends on the purpose of the study and the specifics of the study.

Service quality. The authors, depending on the purpose of the study, differently name the quality of service. Some Authors (Rachman et al., 2018; McLean and Osei-Frimpong, 2017) equate the quality of service with the characteristics of a particular service. For example, convenience, usefulness, fluidity of direct assistance in shopping. Other authors (Zehir and Narcikara 2016; Nilashi et al., 2016; Zhou et al.,

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2018; Ingaldi and Ulewicz, 2019) approach the quality of service more constructively by assigning it not to one service, but to the totality of services. In such works, the quality of service is defined through interactivity, speed of response, empathy, and privacy.

The field of research is becoming more and more relevant – website management, the object of which is the websites content management. The website can act as the main business platform, with the help of which communication and trading with customers is carried out (Gonzalez et al., 2015). Despite various methodologies, it is agreed that the quality of a website is a subjective phenomenon. For some users, quality is related to the content on the website, for others to the smoothness of operation and the pursuit of information, for others to the range of services provided and innovation. The categories of content or information, system and service quality assessment are most often used to assess the quality of a website.

Consumer loyalty in the context of website research

With increasing consumption, consumer e-loyalty remains an important area of research. According to Zhou et al., (2018), consumer e-loyalty in the online space is the result of the benefits, satisfaction, trust and habits experienced. Ahmad and Khan (2017) note that consumer e-loyalty in online stores begins to be formed even before shopping, and continues to be formed after it. Azizi et al. (2020) argue that consumer e-loyalty is the involvement in the activities of an organization, while constantly using the services or products provided. In the opinion of Demangeot and Broderick (2016), consumer e-loyalty begins to be shaped by engagement, which should be a key aspect in the context of websites. Azizi et al. (2020) note that consumer e-loyalty is a key factor that can improve the indicators of internet business.

E-loyalty began to be studied at the end of the twentieth century, and the relevance is still increasing with the increase in the number of users and websites. One of the first and still recognized definitions of e-loyalty is Oliver (1999). The author argued that e-loyalty is the desire to purchase an already used product from an e-shop regardless of competitors or other circumstances that may affect the consumer's self-determination. Toufaily et al., (2013) defines e-loyalty as the consumer's propensity for a particular e-shop or website, the result of which is a re-purchase.

Consumer e-loyalty is usually a small part of the overall quality assessment. In the models published in scientific research, loyalty is assigned to various categories. Part of the Authors (Yoo and Donthu 2001; Barnes and Vidgen 2004; Marsico and Levialdi 2004; Loiacono, Watson and Goodhue 2007) does not distinguish e-loyalty in their models. According to Chang and Chen, (2008), although it is widely recognized that the quality of websites has a significant impact on the e-loyalty of users, it is often forgotten in the process of improving quality. The authors also argue that e-loyalty is the result of quality and user satisfaction, so it should not be neglected in the process of forming and maintaining quality. Tsai, (2017) singles out e-loyalty as the main quality category that all e-commerce websites aspire to. The expression of e-loyalty in the website evaluation methodologies based on the knowledge of different authors is presented in Table 1.

1. Links between internet website quality assessment methodologies and user e-loyalty

Authors and model	Expression of e-loyalty	Number of categories and questions
Yoo and Donthu (2001) „SITEQUAL"	-	-
Law and Leung, K. (2002)	Consumer loyalty	1 category 3 questions
Gilbert and Powell-Perry, (2003)	Loyalty program	1 category 4 questions
Barnes and Vidgen (2004)„eQual"	-	2 questions
Marsico and Levialdi (2004)	-	-
Park, and Gretzel, (2007) success factor model	Consumer loyalty	1 category 4 questions
Watson and Goodhue (2007) WebQual	-	-
Wang and Senecal (2007)	Interactivity	1 question
Nathan and Yeow (2009) „WUF" (eng. Web usability factors)	Reliability	2 questions
Schaupp (2010) Consumer satisfaction	Re-visit	4 questions
Islam and Tsuji (2011) Ease of use model	User-generated design	2 questions
AbuAl ir Abu-Addose (2011) model for evaluating non-commercial websites	-	-
Rocha (2012)	Personalization	1 Sub. category 2 questions
Santouridis el al., (2012) E-S-Qual	E-loyalty	4 questions
Gonzalez el al., (2015) Sport – WebQual	Trust	3 questions
Ahn, el al., (2004) „Ahn"	-	-
Elling el al., (2007) „WEQ"	-	-
Yang el al., (2005) „WPSQ"	-	5 questions
Zhang and Dran (2002) „WQM"	-	3 questions
Wątróbski el al., (2016) „PEQUAL"	-	-

-* there is no expression of loyalty

Consumer e-loyalty in the methodologies is expressed differently. From e-loyalty as a lack of a quality category to a separate main category with 3-4 questions. An analysis of the website's quality assessment methodologies based on consumer knowledge has shown that there is no single expression of e-loyalty. The authors express e-loyalty in models as a repeat visit, personalization, trust or satisfaction. The number of questions allocated to clarify consumer e-loyalty varies from 1 to 4. Questions focused on consumer e-loyalty are most often associated with repeated visits and recommendations for goods or services. According to Salmones et al., (2009), the organization's recommendation of goods and services to other consumers strengthens the link between the consumer and the organization and forms the e-loyalty of the consumer.

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In conclusion, it can be said that consumer e-loyalty is an important area of research in the context of the quality of websites. Consumer e-loyalty models include various categories focused on consumer satisfaction, trust, decision-making, and a common understanding of quality. The field of consumer e-loyalty research will remain relevant due to the growing number of websites and users.

Hypotheses

H1 The quality of the website content has a positive effect on the satisfaction of users with the website.

Hypothesis H1 is hypothesized on the basis of, Khwaldeh ir kt., (2017); Zhou ir kt., (2018) studies. The researches of these authors focused on the impact of the quality of content on consumer behavior through satisfaction with the website.

H2 The quality of the system has a positive effect on user satisfaction with the website.

Hypothesis H2 raised on the basis of Loureiro, (2015); Sauro (2015); Albayrak, (2019) studies. Studies have shown the impact of system quality on the e-loyalty of consumer behavior through website satisfaction. However, the results were ambiguous, the correlations ranged from weak to moderate.
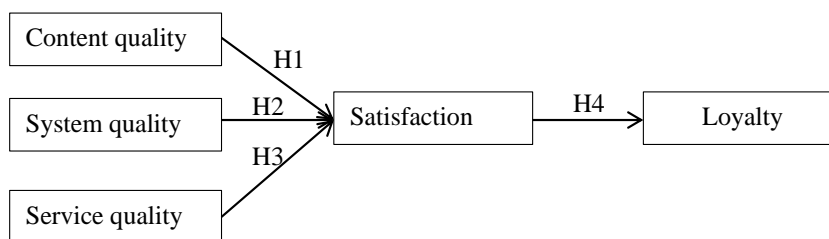
H3 The quality of services has a positive effect on the satisfaction of users with the website.

Hypothesis H3 raised on the basis of Rachman ir kt., (2018); McLean ir Osei-Frimpong, (2017) studies. The results of the research do not de-escalate the impact of the quality of service on the attitude to e-loyalty through consumer satisfaction with the website. For this reason, the goal is to accurately name the elements of the quality of service that affect the satisfaction of users with the website.

H4 Satisfaction with a website has a positive effect on loyalty.

Hypothesis raised on the basis of Salah (2019), Quan ir kt., (2020), Vijayakumar (2020) studies. The authors analyzed the factors that affect consumer loyalty, but the distinguished factors do not apply to different types of websites. For this reason, the aim is to confirm or disapprove factors affecting the e-loyalty of the consumer's attitude through satisfaction with the quality experienced.

The research model is compiled on the basis of trends presented in the scientific literature and analyzed studies.

Figure 1: Research model

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The model consists of 3 parts:

1. Website quality components, which are divided into quality of content, information and system, the result of which is the impact on user satisfaction.

2. The expression of the quality perceived by the user, through satisfaction with the website. User satisfaction in this study will be used as a result of the perceived quality of the website.

3. The user's response to perceived quality through satisfaction. Loyalty in this model is presented, as a result of satisfaction with the website.

In conclusion, the empirical level of testing the impact of the quality of websites on the e-loyalty of users is insufficient for the existing need. There is a lack of more diverse website allocations and comparisons with each other, and it is proposed to apply different methodologies to different markets. The quality of websites is most often analyzed through various parts of the content, system and quality of service. It is noticed that it is often limited to one specific quality element or website. The level consumer e-loyalty, as well as the quality of websites, is often limited to a single expression or element. When analyzing studies of the influence of the quality of websites on the e-loyalty of users, it is noted that most of the research is limited to correlation. All this indicates the need for research on the influence of the quality of websites and interfaces with consumer e-loyalty.

Research Methodology

In order to maintain the novelty of the research, this work focused on the quality indicators of websites and their impact on the user's e-loyalty through consumer satisfaction. The growth in the number of consumers and online stores shows that consumers are increasingly interested in online stores and their trade, merchants understand the benefits of online stores.

The aim of the study is to determine the impact of the quality of the website on consumer loyalty through consumer satisfaction.

The objectives of the study are:

1. To assess the quality of the selected website;

2. To reveal the influence of consumer satisfaction on loyalty.

Research methods. In this research we were using a questionnaire. This quantitative method allows us to analyze our market from multiple perspectives. Most studies analyzing the impact of website quality on consumer loyalty rely on quantitative studies to study the quality elements of the website and loyalty criteria. During the quantitative investigation, a pre-compiled study model was verified.

In the study, the questionnaire consisted of 22 questions on the principle of the Likert scale. The method of evaluating the data of the Likert scale allows you to evaluate the general opinion of the respondent about the objects presented and determine which of them are valued more positively (Dikčius, 2011). The statements made were evaluated from 1 – I completely disagree to 5 – I completely agree. The questionnaire is based on Kumar and Kashyap (2018); Chiu and Won (2016); Hung, (2017) research. Data collection time period – 2022 March and April.

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Data calculated using SPSS *(Statistical Package for Social Sciences)* software. For the data expressed on the interval scale, averages *(Avg.)* and standard deviations *(SD)* are calculated.

For the internal compatibility check of the individual scales of the questionnaire, the values of the Cronbach Alpha coefficients were calculated, and we consider the questionnaires to be well compiled if their Cronbach Alpha value was greater than 0.7. For the comparison of the results of the study (to determine the significance of the differences in the averages of the scales obtained), the values of *the Stjudent* t-test and the statistical significances of these values (p) together with the number of degrees of freedom (df). *Pearson correlation* coefficient is used to determine the significance of relationships between individual variables. In order to confirm the hypotheses raised during the study about the influence of independent variables on dependent variables, regression models were formed. In all cases, we will consider statistically significant the difference, the reliability of which will be more than 95%, i.e. when p<0.05.

The sample of the survey is the people who intend or make purchases on the internet. This work aimed to achieve the widest possible distribution of consumers in demographic aspects. The sample of the study consists of based on Paniotto's formula

$$n = \frac{1}{\Delta^2 + \frac{1}{N}}$$

where:

n – sample size;

Δ- sample error size (=0.05; in social science studies, an error of 5-10% is acceptable Ruževičius 2016).

N – general size of the whole (a survey conducted on behalf of the Lithuanian Statistics Department (2022), 80% of Lithuanians have purchased goods or services online in the past 6 months around, 2.2 million people.).

In this case, questionnaires of 384 respondents should be collected.

Demographic statistics

During the survey, 406 respondents data was collected, 221 women, 185 men. Majority of people (293) live in a town. The average age was 24,5.

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Research Results

The next step determined the reliability of the questionnaire. In order to determine the reliability (internal compatibility) of the questionnaire Cronbach alpha coefficients were calculated.

Table 2. Cronbach Alpha Coefficients

Scale	Website questionnaire
Quality of content /information	0.839
System quality	0.822
Service quality	0.824
Satisfaction	0.883
Loyalty	0.909

It can be seen that for all scales, Cronbach Alpha was high enough (>0.8), which indicates that the internal compatibility of the questionnaire is appropriate.

This part of the results will contain the average and standard deviation of the assessment of responses about the quality of the website. The best rated element of the category of information and content of the website is the clearness of the information provided, this issue also had the lowest statistical deviation (0.795). The worst-rated element in the quality category of website information and content is the reliability of information with a score of 3.44.

The highest rated element of the website system category is ease of use (3.96), which also had the lowest statistical deviation (0.838). The worst item on the internet site that is rated in this category is the attractiveness of 3.57 points this issue also had the highest standard deviation (0. 891).

The best-rated element of the category of services of the website is the matching of consumer demand (3.66), this question also had the highest standard deviation (0.894). The worst-rated element in this category is the ability to answer all the questions raised by the user with a score of 3.56 on this question.

Respondents on the website rated the best overall satisfaction with the quality of the website - 3.83 points. Overall satisfaction with the website also had the lowest standard deviation (0.792).

In the loyalty category, respondents rated the best value for purchasing a product from this website – 3.69 points. This is the result of a potentially suitable demonstration of goods or services, which is obtained at the cost of time costs. Respondents had the most negative comments about the possibility of spending more time on this website – 3.11 points. The most divided opinions of the respondents were in the account creation statement, with a standard deviation of 1.029 points. On the website studied, respondents tend to be positive about their loyalty.

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Table 3. Results of descriptive statistics of the study

Category	*Averange.*	*St. Dev.*
Content quality	3.66	0.7
System quality	3.78	0.7
Service quality	3.62	0.71
Satisfaction	3.71	0.72
Loyalty	3.42	0.76

The best-rated category was the system quality. The smallest standard deviation was in the content and system quality categories.

In the next phase of the study, the impact of the website, content, system and quality of service on consumer satisfaction and loyalty was analyzed. The study tables present the values of regression and the conclusion of the hypothesis.

The first hypothesis was to find out the effect of the quality of content on consumer satisfaction. The second hypothesis was to find out how the quality of the system affects consumer satisfaction. The third hypothesis was to find out how the quality of service affects consumer satisfaction. The ANOVA (F=261.356, p<0.000) data shows that regression analysis is possible. All three factors (quality of content – information, system, service) explain 65.9% satisfaction in the distribution of data. Durbin – the Watson criterion is close to 2 (1.980), which indicates that the values of content – information, system and quality of service are suitable for forecasting satisfaction.

Table 4. The impact of the quality of the online store on consumer satisfaction

Hypothesis		Regression data			Conclusion
		Stand. Beta	t	Sig.	
H1	The quality of the content has a positive effect on the satisfaction of users with the website.	0.160	3.766	**p=0.000**	<u>**Approved**</u> The quality of the content has a positive effect on the satisfaction of users with the website (affects 16 percent. satisfaction data dissemination)
H2	The quality of the system has a positive effect on user satisfaction with the website.	0.425	10.122	**p=0.000**	<u>**Approved**</u> The quality of the system has a positive effect on user satisfaction with the website (affects 42.5%. satisfaction data dissemination)
H3	The quality of services has a positive effect on the	0.324	7.118	**p=0.000**	<u>**Approved**</u> The quality of service has a positive effect on consumer satisfaction with the

satisfaction of users with the website.				website (affects 32.4%. satisfaction data dissemination)

When analysing the hypotheses raised about the quality of the website, it is assumed that all three hypotheses of the influence of the quality of the website on the website have been confirmed. Hypothesis H1, H2, H3s to confirms this is shown by statistically significant regression patterns (p<0.05). When analyzing the impact of the quality of the online store on satisfaction, it is noted that the greatest influence is made by the quality of the system, which affects 42.5% of the dissemination of satisfaction data, then follows the quality of service, affecting 32.4% of the satisfaction of data dissemination, and the quality of content and information affects 16% of the dissemination of satisfaction data. It can be said that in order to achieve greater consumer satisfaction on the website, the system quality should be given priority.

The fourth hypothesis sought to determine the influence of satisfaction on loyalty. Anova data (F=412,856, p<0.000) allows for regressive analysis, while Durbin's criterion for Watson is close to 2 (1.894), the data is suitable for predicting behavioral loyalty criteria.

Table 5. The impact of website satisfaction on consumer loyalty

Hypothesis		Regression data			Conclusion
		Stand. Beta	t	Sig.	
H4	Satisfaction with a website has a positive effect on loyalty.	0.353	9.104	**p=0.000**	**Approved** Satisfaction with the website has a positive effect on loyalty (affects **35.3%.** loyalty data dissemination)

From the table presented, it can be seen that the hypothesis is confirmed. Satisfaction has a positive effect on loyalty. All hypotheses put forward in the study are confirmed.

Discussion

The results of the quality of the content made it possible to supplement the articles published by the authors in scientific literature and fill the gaps in the restrictions on their research. Alhulail et al., (2018) a study has shown that the quality of information has a statistically significant impact on the content of users with the website. This study allowed us to see how users rate the quality of a website through satisfaction. The system quality is most important factor for user satisfaction. This means that website managers should ensure that websites should be easy to use and

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navigate, and it should be reliable and secure. The obtained system quality results allowed users to find out the need for the functionality of the website, as well as to supplement several scientific studies. Putri, and Pujani, (2019) carried out a study to find out the effect of the quality of websites on the content of consumers in terms of buying on internet ticketing websites. In this study, the quality of the system had a statistically reliable impact on user satisfaction with the website. The quality of the content is important for user satisfaction. This means that the website managers should be well-written and informative, and it should provide consumers with the information they need. The results obtained by analyzing the quality of services also allowed, supplementing, or comparing the results obtained with the works of other authors. Sharma and Lijuan (2015) conducted a study that sought to uncover the impact of a quality of service website on the content of users on the website. The results claimed that the quality of service and the quality of information are key aspects in explaining consumer satisfaction. Same results were obtained in this study. When analyzing the impact of consumer satisfaction on consumer loyalty, the results in different studies reflect the importance of the conducted research. Tandon et al., (2017) a study was conducted, during which consumer satisfaction was used as a mediator between the quality of the website and the intention of the purchase. Tourism results showed that consumer satisfaction was responsible for 93% of consumers' purchasing intentions, while website quality was responsible for 4%. The conducted study complements these results with a different sample, both demographic and psychographic. Consumer satisfaction is a key driver of consumer loyalty. For website managers this means that if consumers are satisfied with the website, they are more likely to return to it and make purchases.

Conclusion

Websites may be subject to different evaluation methodologies depending on the objective to be achieved. In most cases, authors rely on more defined categories for assessing the quality of websites, such as the quality of information or content, systems and services. The expression of loyalty in the methodologies for assessing the quality of websites ranges from a complete absence to one of the main categories, such a result is most often determined by the purpose of the study.

The best rated quality of the website category was the quality of the system. Users in all quality categories gave positive feedback about the website. The greatest impact on the satisfaction of users with the website was the quality of the system. All hypotheses H1-H4 have been confirmed. Consumer loyalty was statistically significantly influenced by consumer satisfaction with the website. To achieve greater consumer satisfaction the website should be given priority to the quality of the system.

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References

Ahmad, A., Rahman, O. and Khan, M. N., (2017). Exploring the role of website quality and hedonism in the formation of e-satisfaction and eloyalty: Evidence from internet users in India. *Journal of Research in Interactive Marketing*, *11*(3), 246-267.

Aishatu, I., Lim, G., Olakojo, S. A., von Furstenberg, G. M. and Wang, L. F., (2017). Customer loyalty towards internet banking in Nigeria. *Journal of Advances in Economics and Finance*, *2*(3), 149-159.

Albayrak, T., Karasakal, S., Kocabulut, Ö. and Dursun, A., (2019). Customer Loyalty Towards Travel Agency Websites: The Role of Trust and Hedonic Value. *Journal of Quality Assurance in Hospitality and Tourism*, 1-28.

Alhulail, H., Dick, M. and Abareshi, A., (2018). Factors that Impact Customers' Loyalty to Social Commerce Websites. In *International Conference on Information Resources Management*, 2018 Proceeding (Vol.6), 1-13.

Al-ma'aitah, M. A., Al-hashem, A. O., (2019). The role of e-trust in achieving e-loyalty: an exploratory study on jordanian customers using shopping websites. *Journal of Theoretical and Applied Information Technology*, *97*(5), 1488-1499.

Azizi, F. F. N., Aknuranda, I. and Tolle, H., (2020). From e-Commerce Overall Quality to e-Loyalty: A Purchase-centred Framework. *Journal of Information Technology and Computer Science*, *5*(1), 86-103.

Barnes, S. J., Vidgen, R., (2004). Interactive e-government: evaluating the web site of the UK Inland Revenue. *Journal of Electronic Commerce in Organizations (JECO)*, *2*(1), 42-63.

Chang, H. H., Chen, S. W., (2008). The impact of customer interface quality, satisfaction and switching costs on e-loyalty: Internet experience as a moderator. *Computers in Human Behavior*, *24*(6), 2927-2944.

Chi, T., (2018). Mobile commerce website success: antecedents of consumer satisfaction and purchase intention. *Journal of Internet Commerce*, *17*(3), 189-215.

Chiu, W., Won, D., (2016). Relationship between sport website quality and consumption intentions: Application of a bifactor model. *Psychological Reports*, *118*(1), 90-106.

Corejova, T., Jucha ,P., Padourova, A.,Strenitzerova, M.,Stalmachova, K. and Valicova, A., (2022). E-commerce and last mile delivery technologies in the European countries. *Production Engineering Archives*, *28*(3) 217-224.

De Marsico, M., Levialdi, S., (2004). Evaluating web sites: exploiting user's expectations. *International Journal of Human-Computer Studies*, *60*(3), 381-416.

Dikčius, V., (2011). Anketos sudarymo principai. *Vilnius: Vilniaus universitetas*.

Divayana, D. G. H., Sanjaya, D. B., (2017). mobile phone-based cipp evaluation model in evaluating the use of blended learning at school in Bali. *International Journal of Interactive Mobile Technologies (iJIM)*, *11*(4), 149-159.

García de los Salmones, M. M.; Pérez, A. and Rodríguez del Bosque, I., (2009). The social role of financial companies as a determinant of consumer behaviour. *International Journal of BankMarketing*, *27*(6), 467- 485.

Giao, H., Vuong, B. and Quan, T., (2020). The influence of website quality on consumer's e-loyalty through the mediating role of e-trust and satisfaction: An evidence from online shopping in Vietnam. *Uncertain Supply Chain Management*, *8*(2), 351-370.

POLISH JOURNAL OF MANAGEMENT STUDIES
Ūsas A., Jasinskas E., Štreimikienė D.

2023
Vol.28 No.1

Gonzalez, M. E., Quesada, G., Davis, J. and Mora-Monge, C., (2015). Application of quality management tools in the evaluation of websites: The case of sports organizations. *Quality Management Journal*, *22*(1), 30-46.

Hung, C. L., (2017). Online positioning through website service quality: A case of star-rated hotels in Taiwan. *Journal of Hospitality and tourism management*, *31*, 181-188.

Ingaldi, M., Ulewicz, R., (2018). Evaluation of Quality of the e-Commerce Service. *International Journal of Ambient Computing and Intelligence (IJACI)*, *9*(2), 55-66.

Ingaldi, M., Ulewicz, R., (2019). How to Make E-Commerce More Successful by Use of Kano's Model to Assess Customer Satisfaction in Terms of Sustainable Development. *Sustainability*, *11*, 4830

Kaur, S., Kaur, K. and Kaur, P., (2016). An empirical performance evaluation of universities website. *International Journal of Computer Applications*, *146*(15), 10-16.

Khwaldeh, S., Al-Hadid, I., Masa'deh, R. E. and Alrowwad, A. A. (2017). The association between e-services web portals information quality and ICT competence in the Jordanian universities. *Asian Social Science*, *13*(3), 156-169.

Kitsios, F., Stefanakakis, S., Kamariotou, M. and Dermentzoglou, L., (2019). E-service Evaluation: User satisfaction measurement and implications in health sector. *Computer Standards and Interfaces*, *63*, 16-26

Kohavi, R., Longbotham, R., (2017). Online Controlled Experiments and A/B Testing. *Encyclopedia of Machine Learning and Data Mining*, *7*(8), 922-929.

Kot, S., (2023). *Development Insights on Supply Chain Management in Small and Medium-sized Enterprises*. Logos Verlag Berlin GmbH.

Kouser, R., Niazi, G. S. K. and Bakari, H., (2018). How does website quality and trust towards website influence online purchase intention? *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, *12*(3), 909-934.

Kumar, A., Kashyap, A. K., (2018). Leveraging utilitarian perspective of online shopping to motivate online shoppers. *International Journal of Retail and Distribution Management*, *46*(3), 247-263.

Loiacono, E. T., Watson, R. T. and Goodhue, D. L., (2007). WebQual: An instrument for consumer evaluation of web sites. *International Journal of Electronic Commerce*, *11*(3), 51-87.

Loureiro, S. M. C., (2015). The role of website quality on PAD, attitude and intentions to visit and recommend island destination. *International Journal of Tourism Research*, *17*(6), 545-554.

Maraqa, M. R., Al-Amawi, A. M. and Hashem, T., (2018). The Impact of Jordanian Banks Websites' Quality on Customers' Satisfaction. *International Journal of Business and Management*, *13*(8), 268-276.

McLean, G., Osei-Frimpong, K., (2017). Examining satisfaction with the experience during a live chat service encounter-implications for website providers. *Computers in Human Behavior*, *76*, 494-508.

Montazer, G. A., (2018). University Website Quality Improvement Using Intuitionistic Fuzzy Preference Ranking Model. *Quarterly Journal of Iranian Distance Education*, *1*(2), 9-30.

Nadeem, W., Andreini, D., Salo, J. and Laukkanen, T., (2015). Engaging consumers online through websites and social media: A gender study of Italian Generation Y clothing consumers. *International Journal of Information Management*, *35*(4), 432-442.

2023
Vol.28 No.1

POLISH JOURNAL OF MANAGEMENT STUDIES
Ūsas A., Jasinskas E., Štreimikienė D.

Nilashi, M., Jannach, D., bin Ibrahim, O., Esfahani, M. D. and Ahmadi, H., (2016). Recommendation quality, transparency, and website quality for trust-building in recommendation agents. *Electronic Commerce Research and Applications*, *19*, 70-84.

Oliver, R. W., (1999). The red queen rules. *Journal of Business Strategy*, *20*(3), 8-8.

Putri, W. K., Pujani, V., (2019). The influence of system quality, information quality, e-service quality and perceived value on Shopee consumer loyalty in Padang City. *The International Technology Management Review*, *8*(1), 10-15.

Quan, N., Chi, N., Nhung, D., Ngan, N. and Phong, L., (2020). The influence of website brand equity, e-brand experience on e-loyalty: The mediating role of e-satisfaction. *Management Science Letters*, *10*(1), 63-76.

Rachman, A., Hurriyati, R., Wibowo, L. A. and Gaffar, V., (2018). Analysis of Users' Satisfaction with Website Service of STIE Inaba Bandung. *Pertanika Journal of Social Sciences and Humanities*, *26*(1), 181-192.

Roth, S. P., Tuch, A. N., Mekler, E. D., Bargas-Avila, J. A. and Opwis K., (2013). Location matters, especially for non-salient features–An eyetracking study on the effects of web object placement on different types of websites. *International Journal of Human-Computer Studies*, *71*(3), 228-235.

Salah, M. R., (2019). Comprehensive Evaluation of E-Service Quality Determinants." Studying the Impact of these Key Quality Determinants on The Satisfaction and Loyalty of Online Jordanian Customers. *European Journal of Business and Management*, *11*(12) 202-233.

Santika, I. W., Pramudana, K. A. and Astitiani, N. L., (2020). The role of E-Satisfaction in mediating the effect of e-Service quality and E-WOM on E-loyalty on online marketplace customers in Denpasar, Bali, Indonesia. *Management & Economics Research Journal*, *6*(1), 1-7.

Sauro, J., (2015). SUPR-Q: A comprehensive measure of the quality of the website user experience. *Journal of Usability Studies*, *10*(2), 68-86.

Sharma, G., Lijuan, W., (2015). The effects of online service quality of e-commerce Websites on user satisfaction. *The Electronic Library*, *33*(3), 468-485.

Tandon, U., Kiran, R. and Sah, A. N., (2017). Customer satisfaction as mediator between website service quality and repurchase intention: An emerging economy case. *Service Science*, *9*(2), 106-120.

Tiantong, M., Tongchin, P., (2013). A Multiple intelligences supported web-based collaborative learning model using Stufflebeam's CIPP evaluation model. *International Journal of Humanities and Social Science*, *3*(7), 157-165.

Toufaily, E., Ricard, L. and Perrien, J., (2013). Customer loyalty to a commercial website: Descriptive meta-analysis of the empirical literature and proposal of an integrative model. *Journal of Business Research*, *66*(9), 1436-1447.

Tsai, S. P., (2017). E-loyalty driven by website quality: The case of destination marketing organization websites. *Journal of Organizational Computing and Electronic Commerce*, *27*(3), 262-279.

Vijayakumar, T., (2020). A Study on Customer Satisfaction towards Online Shopping in Muchirai Block of Kanyakumari District. *Our Heritage*, *68*(30), 7111-7119.

Yoo, B., Donthu, N., (2001). Developing a scale to measure the perceived quality of an Internet shopping site (SITEQUAL). *Quarterly journal of electronic commerce*, *2*(1), 31-45.

POLISH JOURNAL OF MANAGEMENT STUDIES
Ūsas A., Jasinskas E., Štreimikienė D.

2023
Vol.28 No.1

Zehir, C., Narcıkara, E., (2016). E-service quality and e-recovery service quality: Effects on value perceptions and loyalty intentions. *Procedia Social and Behavioral Sciences*, *229*, 427-443.

Zhou, R., Wang, X., Shi, Y., Zhang, R., Zhang, L. and Guo, H., (2018). Measuring e-service quality and its importance to customer satisfaction and loyalty: an empirical study in a telecom setting. *Electronic Commerce Research*, 1-23.

WPŁYW JAKOŚCI STRON INTERNETOWYCH NA UŻYTKOWNIKÓW E-LOJALNOŚĆ W SKLEPIE INTERNETOWYM

Streszczenie: Zmiany spowodowane przez Przemysł 4.0 zasadniczo zmieniły nasz sposób spędzania wolnego czasu, uczenia się, przeglądania Internetu i działania organizacji. Badanie jest nowatorskie, ponieważ koncentruje się na wpływie jakości strony internetowej na lojalność konsumentów w sklepie internetowym, szczególnie w kontekście Przemysłu 4.0. Celem artykułu jest określenie wpływu jakości strony internetowej na lojalność konsumentów w sklepie internetowym. Dane uzyskano z 406 wypełnionych kwestionariuszy od litewskich konsumentów korzystających ze stron internetowych. Wszyscy uczestnicy badania zostali wprowadzeni do sklepu internetowego. Analiza opiera się na metodologii ilościowej, w badaniu wykorzystano analizy regresji oraz analizy statystyczne. Na podstawie wyników można stwierdzić, że podniesienie jakości strony internetowej jest ogromną częścią sukcesu sklepu internetowego. Jakość posiadanego systemu miała największy wpływ na satysfakcję konsumentów. Zadowolenie konsumentów miało znaczący wpływ na ich lojalność wobec strony internetowej. Z praktycznego punktu widzenia badania wskazują, że jeśli menedżerowie stron internetowych chcą przede wszystkim zwiększyć satysfakcję konsumentów, muszą zainwestować w jakość systemu.

Słowa kluczowe: Sklep internetowy, lojalność, jakość strony internetowej