

WEBSITE QUALITY ASSESSMENT VS. CONSUMER BEHAVIOURS

Anna RYBAK

Częstochowa University of Technology, Częstochowa; anna.rybak@wz.pcz.pl, ORCID: 0000-0003-3981-0273

Abstract: Subject matter literature shows that the Internet is becoming a more and more frequent place to purchase goods and services. E-customers choose to select the website of the store which arouses their confidence. The purpose of this article is to present the factors that determine the selection of the e-store for individual customers. The study used the three-point Likert scale. Conclusions concerning assessment of the quality of the website as a place to shop for young customers were drawn on its basis. The author's contribution involved identification of the factors determining the decision regarding product or service online purchase, which will facilitate better alignment of e-stores and customer needs.

Keywords: purchase decision process, website assessment.

1. Introduction

Rapid development of ICT (Information and Communication Technologies) has introduced new, more efficient channels of communication and distribution of products and/or services. In such a different environment, customer behaviours are bound to change. One of such factors is the quick access to information concerning the product or the service, the entrepreneur, the distribution channel, or security of the transaction and the after-sales service. The information enables the customer to make a carefully considered and thought over decision. Owing to ITC, customer behaviours change; from passive persons, recipients of information, they turn into active players, creators of information involved in economic, social and environmental matters. At present, the customer is not only the buyer of a product/service but, through the purchase, they want to feel emotions (positive experience) related to the purchase of the product. Contemporary customers are more demanding, diverse, pedantic and careful in making choices, and they have greater expectations which they do not articulate. Pursuing rationality in making purchase decisions, individuals gain experience and share the knowledge with friends, on Internet forums and portals.

In the era of Internet development, entrepreneurs should change their approach towards the client interpreted not only as a consumer of their goods but also as a co-creator and co-decision maker within the entire supply chain.

The article presents consumer behaviours related to the assessment of the website as a place for making online purchases.

2. Decision-making process – the traditional approach

A decision is a resolution resulting from selection. (Słownik, 1968). When making purchases, the customer makes decisions. The decision may result from a deliberate, carefully considered action being an element of a prudent decision-making system, or it may be made impulsively, or emotionally, which in turn reflects the affective system. Loewenstein et al. (Loewenstein, et al., 2015) believe that the decision-making process is affected by both affective and deliberation (reason) factors. Their research leads to the conclusion that individual behaviours in the decision-making process are a result of many direct and indirect events, experiences and emotions that affect consumer behaviours and their decisions. The virtual sales environment expects that purchase decisions will be more prudent and thoughtful as the purchase and payment path is extended with every purchase stage authorisation.

Mącik (2016) proposed an individual, personalised approach to the decision as a style characteristic of any individual. The customer's purchase decision-making style is a mental orientation characterising the consumer's approach towards purchase decision-making. We can distinguish the following styles of the customer's purchase decision-making:

1. Perfectionist – uncompromising in terms of quality of the goods purchased; willing to make the extra effort (cost or time) to get the expected quality; comparing the available options, the individual often uses search engines;
2. Brand oriented – belief that quality, and thus satisfaction with the purchase and consumption of the goods, will be assured by the product or the service brand; the individual may avoid online purchases for fear that the product should be counterfeited;
3. Novelty and fashion oriented – satisfaction with the purchase and consumption is related to the most fashionable products/services; being the first to have them is the individual's most important goal; excitement about novelties and following market trends may lead to diverse choices regarding product distribution channels;
4. Hedonistic/recreational – buying for fun or on a whim, often spontaneously; the individual gets satisfaction and pleasure from the very fact of being able to make purchase decisions; the individual spends a lot of time shopping, but not necessarily buying, and they often browse websites;

5. Quality and price oriented – satisfaction with the purchase is correlated with the quality and the price of the goods/services; the individual tends to maximise 'the value for money', and they do not avoid online shopping;
6. Impulsive / Careless – the purchase decision is unreflective; the individual does not plan the purchase, they act emotionally; the client purchases from e-stores, but they often withdraw from the purchase contract (frequent returns of the goods ordered);
7. Routine, brand loyalty oriented – brand or store loyalty resulting from knowledge, experience and/or convenience enables the individual to make satisfactory purchases; the individual does not avoid various distribution channels;
8. Flooded by information – the customer gets satisfaction with the purchase from the quick purchase of products/services meeting their minimum requirements; the individual does not like to make choices, and making purchase decisions tires and irritates them; online shopping is satisfactory (not tiresome) to them;
9. Compulsive – the individual treats shopping as an inner compulsion, a form of restoring self-control over their life, or a form of reducing their anxiety; the customer often improves their mood through spending money (a hedonistic attitude);
10. Eco-sensitive – the individual makes careful purchase decisions oriented at pro-ecological and pro-social behaviours of manufacturers and sellers; satisfaction with the purchase and consumption results from the manufacturer and the customer's social responsibility; the customer gets information from the Internet, and they often buy products in the digital world.

The presented decision-making styles provide an overview of the characteristic features of consumer behaviours in various distribution channels, while the course of the changes constitutes the purchase decision process. Rudnicki (2012) divided the process into five phases of making purchase decisions concerning the selection and the purchase of the best version of the product or the service by the prudent customer. The process is made up of phases of varying duration, namely feeling the need, searching for alternatives, evaluating the alternatives, making the purchase decision, and the feeling following the purchase. Each of these phases may be omitted, or the customer may cancel the purchase or to decide not to satisfy their need at any stage. The process is always accompanied by decision-making. The decision-making process is formed in advance, prior to the need phase, as awareness of the existence of the need leads to deciding whether to satisfy it or to resign from it. While recognising the need, there arises the awareness of its existence and the interest in the possibility of meeting it. When searching for alternatives, the individual collects information by associating facts and recollecting the ways of resolving similar problems. Having the knowledge and the experience, the consumer may begin evaluation of similar solutions. Implementation of the purchase decision makes the consumer decide on the problem solution they find satisfactory. The final stage of the decision-making process is the evaluation of the level of satisfaction with the choice made and the fact that the need has been addressed (Krzepicka, 2016). As satisfaction with the

choice made is a factor affecting implementation of activities related to further purchase decisions, one should investigate two separate processes, namely and purchase process and the consumption process. The subject matter literature carefully distinguishes the two. The purchase decision-making process relates to the perception of the product/service (and benefits from them), the processing of the information, the evaluation and the actual making of the purchase decision. On the other hand, consumption is related to the use of goods and services, and to the experiences associated with it. Affects accompanying the individual making purchase decisions may determine the very fact of entry into possession of a given object. Consumption and resulting emotions follow the purchase, so they will trigger different attitudes and behaviours. (Gaczek, 2015) However, the satisfaction and the emotions accompanying these two processes intermingle and complement each other, giving the individual a full sense of contentment, satisfaction or disappointment with the purchase and consumption.

Website assessment by individual customers has been the subject matter of numerous studies and scientific deliberations. With the opening of the e-market, enterprises incorporated this sales channel as an additional way to distribute and sell their products and services (Barwise and Farley, 2005). However, not all websites effectively encourage online purchases.

The subject matter literature analyses the website quality in terms of:

1. the ease of reaching the customer with the information, and the ease of website selection, confidence and loyalty (usefulness of the information from intelligent databases, the so-called Pay-as-you-go) (Srinivasan, and Arya, 2013; Gao, and Liu, 2014; Curry et. al., 2018).
2. The industry in which the enterprise operates (e.g. e-banks, airlines, health care, for instance Bauer et. al. 2005; Chmielarz, Zborowski, 2016).
3. Online safety and dangerous redirections (Nilashi et al., 2015; Rodda et al., 2017, 2018).

Chiou et al. (Chiou et al., 2010, 2011) proposed a three-level strategic framework for assessing the quality of the website, namely the level of information – customer satisfaction with the information provided on the website; the level of agreement – satisfaction with the online improvements; the settlement level – satisfaction with the payment and delivery forms. Parasuraman et al. (Parasuraman, et al., 2005 and, inter alia, Hu, 2009, and Yang Fang, 2004) carried out a study of the service quality scale (E-SERVQUAL) covering the effectiveness of reaching the customer with the information, the system availability, the service provision, and the transaction security (privacy) as the characteristic features which the organisation should measure to assess changes in customer behaviours.

Most of the methods used to assess website quality are focused on certain points, based on the determination of a set of assessment criteria according to a fixed scale.

This article also uses Likert scale.

3. Research methodology

The study covered a group of 10 young consumers who responded to a survey posted on an e-learning platform. This approach made it possible to select people using computers (no technological barriers) and making online purchases (experience and knowledge make it possible to assess a website in terms of its reliability and usefulness to the e-customer). Posting the survey on the platform made it possible to obtain answers to the questions in conditions in which the respondents most frequently made their online purchase decisions.

Among others, the survey contained questions regarding purchasing preferences, purchasing frequency, and the amount spent annually on e-commerce. Then, the respondents answered questions regarding website assessment in terms of its functionality and usefulness in the purchase decision-making process. Seven indicators measured with the three-point Likert scale were allowed for, and they were considered as reflexive features. Further questions regarded verification of online payment security.

70% of the research group were women aged up to 24 (80%) who did use e-commerce irregularly (50%). Most frequently, the respondents bought things to cater for their personal needs (60%), followed by clothes and shoes (20%), cosmetics (10%), automated machinery and devices (10%). The annual amount spent online, without paying bills, is lower than PLN 1,000.00 (90%), and only 10% of the respondents spent up to PLN 2,000.00 in 2016.

The results were influenced by the fact that the respondents were young people without regular income (largely dependent on their parents), so purchase decisions were financially limited.

4. Indicators affecting website assessment by young consumers – research results

According to Gemius, 79% of citizens aged 7 to 79 use the Internet in Poland. People making online purchases constitute 54% of all the Internet users. Statistically, the largest group of people using the web to do shopping are people aged 15-49 (87%), with secondary education (47%), living in the city (74%), whose household financial situation is good (51%). The greater part of all Poles (53%) shop on Polish websites, but only 16% of the Internet users choose to do their shopping on foreign websites. Allegro is the most recognisable e-services platform (71%), followed by OLX (32%) and Zalando (13%). Among foreign e-services platforms, it is Aliexpress, spontaneously recognised by 26% of those who shopped on foreign websites within the last 6 months. The respondents declared that the reason for their doing online shopping were the prices offered by e-stores (58%), lower than those offered by traditional stores, and low

costs of delivery (62%). The factors deterring from online shopping included long delivery times (38%), high costs of delivery (37%), and intrusive advertising after seeing the product (36%).

Surveys carried out by Gemius provide a comprehensive picture of the e-commerce development in Poland; consequently, research regarding website assessment in terms of their reliability and credibility of information affecting purchase decisions made by e-customers appears to be reasonable. The purpose of this study was to analyse the indicators of the website assessment during online shopping by young individual customers. Indicators to assess websites were adopted based on the studies carried out by Oliveira et al. (2017).

Table 1.

Characteristics of website assessment indicators, by respondent gender

I choose a website when:			
CATEGORIES	YES	I HAVE NO OPINION	NO
Everything is easy to understand on this site.			
Women	100%		
Men	100%		
This site is easy to use, even if used for the first time.			
Women	100%		
Men	100%		
It's easy to find the information you need on this site.			
Women	87.5%	12.5%	
Men	66.7%	33.3%	
The structure and the content of the site are easy to understand.			
Women	100%		
Men	66.7%		33.3%
It's easy to navigate on this site.			
Women	100%		
Men	100%		
The arrangement of the content of this site makes it easier for me to know where I am.			
Women	87.5%	12.5%	
Men	66.7%		33.3%
When I navigate on this site, I feel I control what I can do.			
Women	87.5%	12.5%	
Men	66.7%	33.3%	

The table contains data deriving from the respondents' answers. The sequence of the statements is consistent with the sequence in the survey.

Source: author's own studies and elaboration.

The respondents (Table 1) consistently claimed (both men and women) that the site needed to be understandable, simple to use and easy to navigate for them to make their purchase decisions. These statements have a decisive impact on their feeling of satisfaction with the purchases. When doing their shopping, young customers do not look for intellectual emotions; they want to order a product easily and nicely, without having to look for it. They abstain from purchase decisions when the website is very complex.

The respondents were not certain whether easy access to information and control over what they can do on a website constituted a factor that facilitated their online purchase decisions. Awareness of purchases in the digital space does not raise young consumers' concerns about navigating websites; the author believes that those factors will have a greater influence on the decisions made by older people who may feel lost in the virtual space of the Internet. E-store customers obtain information about products or services from other sources, for instance using search engines, or comparing products with one another. E-store websites are a source of selection of already defined products, and information on them is not searched by Internet users. Awareness of choice is devoid of a wish to seek knowledge about the product on the store website.

The most surprising are the answers given by the male respondents, stating that the fact that the structure and the content of the website are easy to understand, and that the layout of the website makes it easier to know where the potential customer is, has no influence on their purchase decisions. The foregoing makes it possible to assume that e-store customers do not pay much attention to tracking their own actions on e-store websites, but the decisions they make result in a quick order. These issues complement earlier deliberations that the choice and the decision are made beforehand, and the purchase should be simple and easy.

It seems reasonable to claim that when making purchase decisions, young e-customers pay attention to the ease of navigation and the clarity of websites without tracking or controlling their exact location on the website.

Financial transaction security is an important indicator of the website assessment. Awareness of the risk associated with cyber crime regards, among others, online transaction security. Young consumers should have the knowledge and the experience related to e-commerce financial transaction security. This study attempts to answer the question to what kind of safeguards customers pay attention when doing online shopping. The results of the study have been shown in two categories, broken down by gender and by payment decisions (whether the e-customer always pays when ordering or not). Such an approach seems justified because of the spontaneity of the payment decision, whether it is thought over and considered (if I benefit from it), or if it is spontaneous (I always pay online), or because of the approach towards risk (for instance, Hallikainen and Laukkanen believe men trust e-stores more than women do).

Table 2.
Online payment security verification, by gender

Categories	Before paying, I verify the security		
	Always	Sometimes	Rarely
On the store website			
Women	28%	28%	44%
Men	0%	0%	0%
Redirection to the bank's website			
Women	42%	42%	26%
Men	100%	0%	0%

Source: author's own studies and elaboration.

The study carried out (Table 2) shows that when doing online shopping, the respondents always verify redirection to the bank's website (100% of men and 42% of women). Women verify security on the store website and redirection to the bank's website. Such behaviours make it possible to claim women are more suspicious and prudent when carrying out online transactions.

Table 3.
Approach towards online payments

I pay online	Always	If I benefit from it
Women	12.50%	87.50%
Men	50%	50%

Source: author's own studies and elaboration.

When assessing websites, women are more cautious about financial transactions than men, which is also reflected in Table 3. Only 12.5% women pay online, but as many as 50% of men do.

Table 4.
Online payment security verification, by answer

I pay online	Before paying, I verify the security		
	Always	Sometimes	Rarely
	On the store website		
Always	50%	0%	0%
If I benefit from it	0%	12.5%	25%
	Redirection to the bank's website		
Always	50%	50%	0%
If I benefit from it	62.5%	25%	0%

Source: author's own studies and elaboration.

Further studies regarded customers who always or sometimes (if they benefitted from it) paid online when doing online shopping (Table 4). When making online payments while shopping, e-customers 'always' verify the redirection to the bank's website (50% of those always paying online), with 62.5% of those paying online if they benefit from it. E-store website safeguards are verified by 50% of those always paying online and 12.5% of those paying online if they benefit from it. What they verify the most frequently is the redirection to the bank's website (100% of those always paying online and 82.5% of those paying online if they benefit from it).

When comparing the studies, one may conclude that women are more prudent and cautious about financial transactions carried out online. Female e-customers verify e-store website safeguards and redirections to banks' websites more frequently. In the case of men, secure redirection to the bank's website is a sufficient argument proving financial transaction security.

Conclusions

When assessing websites, customers decide whether the place to shop is attractive to them or not. The choices they make are relevant to the development of e-commerce in Poland. The study aimed to distinguish the indicators which affect the assessment of websites as places to shop. The study indicates that young customers, when making their choices, pay attention to convenience, namely the ease of navigation on the website, understanding of the content available, and the transaction clarity. E-customers are interested in the ability to purchase quickly, without complicated selections and confirmations at further levels of the transaction process. Verification of the money transfer security primarily on the bank's website also supports the thesis that time is the most important factor in the online purchase decision-making process.

Attention is also paid to the fact that women are more cautious when making decisions regarding online payments. Women verify the safeguards on both the e-store website and the bank's website.

This paper does not cover all the issues regarding e-store website assessment. It presents several indicators which may affect individual customers' purchase decisions. A small survey group does not permit generalisation of conclusions, but it does make it possible to indicate the results of consumer behaviours in the virtual space. Future research should more extensively explore certain phenomena related to individual customers' purchase decisions (meaning the decision-making style and the e-commerce purchase decision-making process).

References

1. Barwise, P., Farley, J.U. (2005). The state of interactive marketing in seven countries: Interactive marketing comes of age. *Journal of Service Marketing*, 19(3), 67-80.
2. Bauer, H., Hammerschmidt, M., Falk, T. (2005). Measuring the Quality of E-Banking Portals – an Empirical Investigation. *International Journal of Bank*, 23(2), 153-175.
3. Chiou, W.C., Lin, C.C., Perng, C. (2010). A strategic framework for website evaluation based on a review of the literature from 1995-2006. *Information & Management*, 47(5-6), 282-290.
4. Chiou, W.-C., Lin, C.C., Perng, C. (2011). A strategic website evaluation of online travel agencies. *Tourism Management*, 32, 1463-1473.
5. Chmielarz, W., Zborowski, M. (2017). Comparative Analysis of Electronic Banking Websites in Poland in 2016. In S. Wrycza, J. Maślankowski (Eds.), *Information Systems: Research, Development, Applications, Education*. Lecture Notes in Business Information

- Processing, 10th SISSAND/PLAIS EuroSymposium (pp. 43-56). Gdańsk: Springer International Publishing.
6. Curry, E., Derguech, W., Hasan, S., Kouroupetroglou, C., Hassan, U. (2019). A Real-time Linked Dataspace for the Internet of Things: Enabling “Pay-As-You-Go” Data Management in Smart Environments. *Future Generation Computer Systems*, 90, 405-422.
 7. E-commerce w Polsce 2017 (2017.12.08). <https://www.gemius.pl/wszystkie-artykuly-aktualnosci/najnowsze-dane-o-polskim-e-commerce-juz-dostepne.html>.
 8. Elkhani, N., Soltani, S., Bakri, A. (2013). An Effective Model for Evaluating Website Quality Considering Customer Satisfaction and Loyalty: Evidence of Airline Websites. *International Journal of Computer Science Issues*, 10, 2, 1, 109-117.
 9. Franco Valdeza, A.D., Valdez Cervantes, A., Motyka, S. (2018). Beauty is truth: The effects of inflated product claims and website interactivity on evaluations of retailers’ websites. *Journal of Business Research*, 90, 67-74.
 10. Gaczek, P. (2015). Rola emocji w kształtowaniu zachowań konsumpcyjnych nabywców. W świetle przeglądu literatury. In: W. Patrzalek (Ed.), *Konsumpcja jako forma komunikacji społecznej. Nowe paradygmaty i konteksty badawcze* (pp. 259-270). *Prace Naukowe UE*, 414. Wrocław.
 11. Gao, H., Liu, D. (2014). Relationship of trustworthiness and relational benefit in electronic catalog markets. *Electronic Markets*, 24(1), 67-75.
 12. Hallikainen, H., Laukkanen, T. (2018). National culture and consumer trust in e-commerce. *International Journal of Information Management*, 38, pp. 97-106.
 13. Hu, Y.C. (2009). Fuzzy multiple-criteria decision making in the determination of critical criteria for assessing service quality of travel websites. *Expert Systems with Applications*, 36, 6439-6445.
 14. Krzepicka, A. (2016). Wpływ mobilnych technologii informacyjnych na procesy zakupowe. *Handel Wewnętrzny*, 3(362), 187-194.
 15. Loewenstein, G., O’Donoghue, T., Bhatia, S. (2015). Modeling the Interplay Between Affect and Deliberation. *Decision*, 2(2), 55-81.
 16. Mącik, R. (2016). Style podejmowania decyzji zakupowych, a zachowania konsumentów w symulowanych zakupach w środowisku porównywarki cenowej. Badania marketingowe a potrzeby informacyjne podmiotów decyzyjnych na współczesnym rynku. *Prace Naukowe UE*, 460. Wrocław, 153-166.
 17. Nilashi, O., Ibrahim, Mirabi, V.R., Ebrahimi, L., Zare, M. (2015). The role of Security, Design and Content factors on customer trust in mobile commerce. *Journal of Retailing and Consumer Services*, 26, 57-69.
 18. Oliveira, T., Alinho, M., Rita, P., Dhillon, G. (2017). Modelling and testing consumer trust dimensions in e-commerce. *Computers in Human Behavior*, 71, 153-164.
 19. Parasuraman, A., Zeithaml, V.A., Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213-233.

20. Rodda, S.N., Booth, N., Vacaru, M., Knaebe, B., Hodgins, D.C. (2018). Behaviour change strategies for internet, pornography and gaming addiction: A taxonomy and content analysis of professional and consumer websites. *Computers in Human Behavior*, 84, 467-476.
21. Rodda, S.N., Hing, N., Hodgins, D.C., Cheetham, A., Dickins, M., Lubman, D.I. (2017). Change strategies and associated implementation challenges: An analysis of online counselling sessions. *Journal of Gambling Studies*, 33(3), 955-973.
22. Rudnicki, L. (2012). *Zachowania konsumentów na rynku*. Warszawa: PWN.
23. *Słownik języka polskiego* (1968). Warszawa: PWN.
24. Srinivasan, S., Arya, S. (2013). E-Loyalty and Its Antecedents. *International Journal of Business Management & Research*, 3(2), 71-78.
25. Tsai, W.H., Chou, W.C., Leu, J.D. (2011). An effectiveness evaluation model for the web-based marketing of the airline industry. *Expert Systems with Applications*, 38, 15499-15516.
26. Yang, Z., Fang, X. (2004). Online service quality dimensions and their relationships with satisfaction: A content analysis of customer reviews of securities brokerage services. *International Journal of Service Industry Management*, 15(4), 302-326.