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USER EXPERIENCE AND CUSTOMER EXPERIENCE AS A SOLUTION FOR GAINING COMPETITIVE ADVANTAGES OF THE COMPANY

Abstract: The user experience becomes a very important factor when companies want to be better than competition and keep customer loyalty. This paper analyzes the relation between the User Experience (UX) and the Customer Experience (CX) in terms of the impact they have on the overall satisfaction of users. This study aims to determine which of the two experiences is more relevant and has more impact on the user's satisfaction with the company. UX and CX are very similar concepts, but the terms are not interchangeable. Every company has the task of satisfying the needs of the users and providing more than user expectations. The purpose of this paper is to show how and how much UX affects the CX, and inversely. This study analyze their significance to exploit the user experience for receive competitive advantages.

Keywords: user experience, customer experience, technical characteristics, functional characteristics, user satisfaction.

1. INTRODUCTION

The term user experience was defined by Donald Norman in the middle of 1990s (Norman et al., 1995). Moreover, authors note that customer experience has an important role in ensuring the success of the company. Early study shows that more than 1,300 general directors of the company, more precisely 93% of them, stated that improving the customer experience is one of their most important priorities, and 97% of them said that the experience is critical to success According to a survey from 2014, only 36% of companies in 2010 on the market competed with the user experience satisfaction, compared to the predictions that in the future this number will increase to approximately 89% (Homburg et al., 2017).

UX and CX are very similar concepts, but the terms are not comparable. User experience (UX) refers to the emotions and attitudes of people regarding the usage of a particular product, system or service. It includes user perceptions on

aspects such as usefulness, simplicity of use, efficiency and functionality. UX can be considered subjective by nature, and it represents the perception of the product, including all the emotions, beliefs, preferences, perception, physical and psychological and behavioral responses that occur before, during and after the use. On the other hand, customer experience (CX) represents a wide concept and focuses on a comprehensive experience that users have with the company. It refers to the customers' perception of the brand reputation, sales process, communications, reasonableness of price, delivery, service. Furthermore, customer experience involves "interaction or series of interactions between the customer and the product, company, or its representatives, which leads to reaction. When the reaction is positive, it leads to the identification of the value" (LaSalle et al., 2003).

The differences between this concepts are significant, because CX tend to come from a marketing background and UX from a variety of backgrounds (technical, design, or psychology). In addition, CX looks at the whole experience including all channels of the brand, whereas UX is more specific, tending to focus on a particular part or all product or service. CX is traditionally a term used more in service-related industries such as hospitality or retail, where they would implement ideas such as service mapping and customer loyalty schemes whereas UX is often referring to digital products.

Each company aims to meet customers' needs and to provide more than the single customer expectations. The purpose of this paper is to show how and to what extent the UX influences the CX, and vice versa. This paper aims to determine their importance, analyze them and provide information that could gain the company competitive advantage.

2. LITERATURE REVIEW

The concept of user experience has been growing in the research community over the last two decades. Based on previous research related to the UX and the CX it appears that there is a clear link between them. Virginica Rusu (2018) states: "Given that the UX represents a constituent part of the CX, methods for assessing the UX can be used to evaluate some aspects of the CX, while some other aspects that are not in the field of the UX require special (new) methods". Moreover, comprehensive user experience goes beyond what the users claim. To achieve a high-quality user experience in the companies' offers, there must be a clear link between the UX and the CX. Therefore, their connection will be explained further in the study.

The UX provides the basis for a good CX. Companies can achieve excellent UX, but a poor CX, or vice versa. For example: a company has a good website, customer can find information quickly and easily, can complete a desired task with ease and they search Web pages simply. But, the same company has not a pleasant and professional interaction with customers and they feel generally unsatisfied about the overall experience with that organization/company and everything associated with it.

It can be in reverse, as well: have the best advertising, brand recognition, sales team, customer service representatives, and organizational structure (all CX-related items), but if customers' interactions with the website, mobile app, software or other product-service (all UX-related items) create barriers to completion of the desired tasks, overall CX fails.

According to Buddy Pennington (2016) the success of the company depends on both UX and CX.

Observing all of the above on a lower level we can notice similarities with the technical and functional characteristics of the product have been identified. Hence, some functional characteristics can be noticed on the side of CX, while the technical characteristics can be observed on the side of the UX. In order to always be better than the competition, it is necessary to follow the trends, to be aware of them and figure out what attracts the attention of customers (Kang, 2004).

Quality represents all the functional and technical characteristics of the product or service that can satisfy the needs of a costumer. Planning product quality must be timely accessed and all stakeholders have to be included in the process: buyers, sellers, manufacturers, employees, vendors, consultants, and others. Only a carefully selected team can deliver such results. When the customer is satisfied with the functional and technical specifications, we can expect them to set aside a higher sum of money for that product (Minnema et al., 2016).
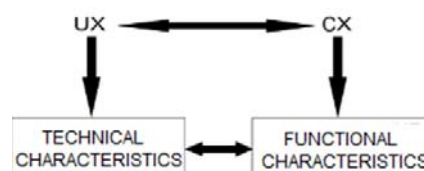
Picture 1: Research model
Source: Author

Functional characteristics are translated into product specifications that elaborate the product and its use in details (Regodić, 2011). They refer to difference in the structure and purpose of the product and form a product which is gonna

be different from the others. Functional differences are reflected in different materials used, the method of production, purpose, individual components of the product, etc. Furthermore, functional characteristics are used as a strategic option for achieving market goals. Certain changes that are possible to be carried out through the improvement of individual functional components create prerequisites for a better positioning and higher competitive advantage. According to Fiorenzo Franceschini (2007) a functional characteristic of the product is a system which translates customer requirements into appropriate company requirements at each stage of the research, through product design and development to production, distribution, installation, marketing, sales and services.

Technical characteristics satisfied the real needs of users for a specific product. Product requirements can be defined by customers, but in accordance with the internal technical specifications, legal regulations, regulations and standards (Krohne et al., 2015). Technical characteristics should be clear, concise, and should ensure equal access to all users. They include minimum requirements that products must meet, unless indicated otherwise in the specification (Carliner, 2009). Unclear requirements and non-compliance with the market analysis may lead to negative outcome for the company.

2.1 RESEARCH QUESTIONS

Based on the literature review, it has been determined that companies tend to create a product or service of a certain quality to meet the needs of users. Therefore, both user experiences are being developed to become a recognized discipline with the same business goals. As a result, the UX and the CX share many similarities. Thus, the following research questions have been created to describe the importance of the UX and the CX and their contribution to the company's success.

RQ1: What is the correlation between the UX and the CX?
RQ2: What is more important in the company's UX and CX?

3. PRELIMINARY DISCUSSION AND RESULTS

Prior research supports the assertion that a lot of attention is devoted on the research of the UX (Hassenzahl, 2008). The UX term has become essential in human interaction technology research and product development, and as a result it is necessary to explore the psychology of the customers' experience (Saariluomaand et al., 2014). Xu (2014) believes that the perception of the UX is a users response using the product, system or service and he defined the UX as series of phases, which include: availability, accessibility, desirability, usability, accuracy or utility. Other researchers explain that UX depends solely on issues such as desirability, credibility and accessibility.
The main issue when making a decision about a new product is whether there is a need for this product or not. In order to sell the product there must be a credibility in the product. This is associated with people who want to buy the product, they should connect with the product and feel encouraged to buy it. The value perceived by customers is crucial in product development. Hence, the product has several attributes and properties, and it should not only meet the needs of users, but their tastes and preferences as well (Bordegoni et al., 2014).
The UX includes all aspects of usability and desirability of products, systems and services from a user perspective. Considerations on user experience for products oriented toward consumers should encourage companies to consider issues such as aesthetics, branding, packaging and support (Hassenzahl, 2008).
According to Bordegoni (2014) UX includes objective performance and subjective emotions of people when using the product.

Any form of interaction between the user and the company including products or services represents the CX. The CX develops from a series of interactions that lead to reactions between the buyer and the product or a company. As a result, this experience allows participation of users at different levels, including rational, emotional, physical and spiritual, so CX has a much wider scope than the UX. It represents every interaction a "brand" has with the user and it is not limited only to the product. Therefore, the CX covers areas that the UX does not cover. (Circle et al., 2018).

The CX is measured in terms of quantifiable metrics such as success rate and error rate. A research explain the importance and impact of CX, where it was measured the customer experience in interactions with agents in a company. The data from 202 usable questionnaires were entered into the data set and were subsequently analyzed; this represented an approximate 85% response rate. The sample comprised 51% males and 49% females, with a mean age of 34.3 years. Participants were asked to focus on their last interaction with the company and each item was rated using a 5-point Likert-type scale with anchors of 1 (strongly disagree) and 5 (strongly agree). Results confirmed that the customer experience is positive if company's interactions with the costumer was successfull and constructive. This finding has a consequence that different types of agent competencies can influence positivly customer's word-of-mouth marketing, which gives each company an increase in business success. Moreover, improvement of the CX is an increasing priority when it comes to market research (Wu et al., 2018).

To contribute to the improvement various strategies are used to develop brand loyalty, increase of re-operations and management of consumers' perception and knowledge, with a focus on current customer experience (CX) (Beauregard et al., 2007).

According to Verhoef (2009) user experience includes the response of consumers to the seller or supplier of services, which includes cognitive, affective, emotional, social and physical responses. On the other hand, the experience creates several determinants or elements that may or may not be controlled by the company. This includes the social environment, range, price, and brand.

The emotional elements that come from the overall experience have far greater impact on consumer preferences rather than tangible attributes of products or services (Chang et al., 2010).

In this regard, from the user's perspective it is not only important to have a useful product or service, but also the overall positive experience of the brand recognition, quality of products or services, purchase, delivery, pricing, customer support and the overall relationship they have with clients. In today's market which offers a lot of information, in many cases, users know more about the products of the company and its competitors, than the company knows it. In successful companies, globally, teams dealing with the CX are often guided by someone who has a good knowledge of the UX.

Don Norman (2013) claims the items that can be downloaded from the UX and applied to improve the CX are: feedback (which is used to measure the experience and improvement), emotional design (poor design can cause negative emotions and frustrations of users), rapid response (to user requirements and the existence of multiple channels for interaction).

Given that the UX is dynamic concept, it can be altered any time according to the needs of the environment. The essence of the UX is an interaction between the user's experience and a product or a service, while the CX, on the other hand, is a comprehensive satisfaction caused by the interaction between the organization and the client. All companies strive for good customer experience and define it as a situation when people meet their expectations of the brand. The CX includes elements of customer support, advertising, brand, product and delivery, while the UX can include content strategy, usability, visual design, interaction design and information architecture. For these elements, Beauregard (2007) proposed a simple applied framework for conceptualizing the components of UX in order to communicate with UX stakeholders and advance goal setting and measurement within applied settings. In the competitive market, differentiation of the UX has a potential for finding new customers, increase of market participation over competition, or be it can be used to mitigate price.

The main focus of competing companies is the quality of the user experience. The aim of the CX experts is to find areas that could create problems with customer satisfaction and act in order to eliminate those. It is essential for companies to improve their UX, in order to achieve improvement of the CX and to realize a step ahead of the competition. The key to success is listening to customers and their needs in order to find ways in which they can communicate with each other. However, organizations must ensure that the CX and the UX complement, in order to utilize the maximum value they provide to users. During a 10 month period, it was conducted a study where managers representatives in 52 companies were interviewed. The size of the consulted firms varied between 97 and 164,000 employees in different industries. Questions were related to CX, strategic directions for designing CX, and firm capabilities for continually renewing CX, with the goals of achieving and sustaining long-term customer loyalty. There is no doubt that companies that invest in improving their experience with their clients, as well as customer experience with them, will increase their revenues and retain customers (Homburg et al., 2017).

A significance of the UX is reflected in the perception of end users as they interact with the product or a service. This includes efficiency, effectiveness and quality of products or services provided by the organization. Therefore, if users have a positive experience with the product, they will use it again.

A significance of the CX includes designing and responding to user interaction in order to meet or exceed their expectations. The main goal is to increase customer satisfaction and loyalty, which leads to a pleasant and positive experience for users and companies as well.

4. CONCLUSION

This paper provides a conclusion that the UX is subset of the CX. Both user experiences are focused on customers and their satisfaction. Organizations are continuously developing their products and services with the aim of attracting a greater number of users. Furthermore, users are the key to any business, and that is the reason why companies would not exist if users were not satisfied with their service. Given that price is not the only influential element while purchasing, companies need to pay special attention to the management of the user experience. Consumers are willing to spend more money on products and services of a company that provides excellent user experience. Also, loyalty and customer satisfaction are one of the best ways to determine whether the UX and the CX led to a positive result. At the end, the most important thing is putting the users in the first place. These two experiences are related and equally important for the success of the company and because of that the winning strategy includes both the UX and the CX.

This paper compares the significance of both experiences from the perspective of the company in order to use them to gain competitive advantage.The next work would be to observe the experience from the perspective of customers. In this way, could be defined an unique strategy that could satisfy both sides of the market.

REFERENCES

Beauregard, R., & Corriveau, P. (2007). User Experience Quality: A Conceptual Framework for Goal Setting and Measurement. *Digital Human Modeling*, 4561, 325–332.

Bordegoni, M., Cugini, U., Ferrise, F., & Graziosi, S. (2014). A method for bringing user experience upstream to design. *Virtual and Physical Prototyping,* 9, 181-194.

Carliner, S. (2009). Characteristic-Based, Task-Based, and Results-Based: Three Value Systems for Assessing Professionally Produced Technical Communication Products. *Technical Communication Quarterly,* 12, 47-65.

Chang, T., & Horng, S. (2010). Conceptualizing and measuring experience quality: the customer's perspective. *The Service Industries Journal*, 30, 2401-2419.

Circle, A., & Disney, W. (2018). Customer Experience in Public Libraries. *Public Library Quarterly, 37, 1-19.*

Franceschini, F., Galetto, M., & Maisano, D. (2007). *Management by measurement: Designing key indicators and performance measurement systems*. Torino: Politecnico di Torino.

Hassenzahl, M. (2008). *Experience Design: Technology for All the Right Reasons*. Essen: Folkwang University.

Homburg, C., Jozi, D., & Kuehnl, C. (2017). Customer experience management : toward implementing an evolving marketing concept. *Journal of the Academy of Marketing Science*, 45, 377–401.

Kang G., & James, J. (2014). Service quality dimensions: an examination of Grönroos's service quality model. *Managing Service Quality: An International Journal*, 14, 266-277.

Krohne, F., Leng, B., & Höhns, H. (2015). Technical product change teams: an organizational concept for increasing the efficiency and effectiveness of technical product changes during ramp-up phases. *International Journal of Product research, 45,* 37–41.

LaSalle, D., & Britton, T. A. (2003). *Priceless: Turning Ordinary Products Into Extraordinary Experiences*. Brighton: Harvard Business School Press.

Minnema, A., Bijmolt, T. H. A., Gensler, S., & Wiesel, T. (2016). To Keep or Not to Keep: Effects of Online Customer Reviews on Product Returns. *Journal of Retailing, 92,* 1–15.

Norman, D., Miller, J., & Henderson, A. (1995). What You See, Some of What's in the Future, And How We Go About Doing It: HI at Apple Computer. *Chi '95 Mosaic Of Creativity*, 155.

Norman, D. (2013). *The design of everyday things.* New York: Basic Books.

Pennington, B., Chapman, S., Fry, A., Deschenes, A., & Chapman, S. (2016). Strategies to Improve the User Experience. *Serials Review*, 42, 47–58.

Regodić, D. (2011). *Tehnički sistemi (Technical systems)*. Beograd: Singidunum University.

Rusu, V., Rusu, C., Botella, F., & Quinones, D. (2018). Customer eXperience: Is This the Ultimate eXperience?. *International Conference on Human Computer Interaction.*

Saariluomaand, P. & Jokinen, J. P. P. (2014). Emotional Dimensions of User Experience: A User Psychological Analysis. *International Journal of Human-Computer Interaction*, 30, 303–320.

Verhoef, P. C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M., & Schlesinger, L. A. (2009). Customer Experience Creation: Determinants, Dynamics and Management Strategies. *Journal of Retailing*, 85, 31–41.

Wu, Y., Lee, H., & Liao, P. (2018). What do customers expect of travel agent – customer interactions? Measuring and improving customer experience in interactions with travel agents. *Journal of Travel & Tourism Market,* 00, 1–13.

Xu, W. (2014). Enhanced ergonomics approaches for product design: a user experience ecosystem perspective and case studies. *Ergonomics*, 57, 34–51.