Reflection on consumers in e-Commerce

Reflexión de los consumidores en el comercio electrónico

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Abstract

This paper presents a reflection on the ideal requirements that a provider should offer to the consumer. Traditionally, studies are made to improve products and/or services, but the consumer's point of view is disesteemed. This work approaches the commerce scenario from an approach where the consumer is the protagonist. The context of analysis is *electronic commerce* (e-commerce), however, the approaches can be extended to traditional commerce. It should be noted that commerce can be classified as traditional or electronic. In the specific area of *e-commerce*, it is known that the relevant defining characteristic is the use of *information and communication technologies* (ICT). Due to the above, the consumer has some particularities that are considered to present the approach. It is about identifying the elements for *e-commerce* improvement. Improving the *sale-purchase cycle* that includes improving marketing, improving consumer service, improving the product and/or service offered, and the improvement of the WEB portal.

Resumen

En este trabajo se presenta una reflexión sobre los requerimientos ideales que un proveedor debe ofrecer al consumidor. Tradicionalmente se hacen estudios de mejora de productos y/o servicios sin embargo se desestima el punto de vista del consumidor. Este trabajo aborda el escenario de comercio desde un enfoque donde el consumidor es el protagonista. El contexto de análisis es el *comercio electrónico* (e-comercio), sin embargo, los planteamientos pueden extenderse al comercio tradicional. Cabe puntualizar que el comercio puede clasificarse como tradicional o electrónico. En el área específica del *e-comercio*, se sabe que la característica relevante que lo define es el uso de las *tecnologías de información y comunicación* (TIC). Debido a lo anterior, el consumidor tiene algunas particularidades que son tomadas en cuenta para presentar el enfoque. Se trata de identificar los elementos para mejorar el *e-comercio*. Mejora del *ciclo de compra-venta* que incluye la mejora del mercadeo, la mejora del servicio de atención el consumidor, la mejora del producto y/o servicio ofrecido y la mejora del portal WEB.

e-Commerce, ICT, Consumer

Comercio electrónico, TIC, Consumidor

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Introduction

In recent years, the use of digital services has increased (Anissa, Purwandari, Wilarso, & Sensuse) such as electronic bank (Liébana-Cabanillas, Muñoz-Leiva, Sánchez-Fernández, & Viedma-del Jesús, 2016), electronic billing (O'Leary, 2000), electronic citizen services (Kotsuka, Murakami, & Arima, 2019), electronic medical assistance (Wrenn, Catschegn, Cruz, Gleason, & Gonzales, 2017), electronic education (MD, CCFP, Ratnapalan, Lam-Antoniades, & Tait, 2009), electronic administration (Collins, 2008), *e-commerce* (Linwan, 2019) (Blazquez, Zhang, Boardman, & Henninger, 2019) (Adaji, Oyibo, & Vassileva, 2018), etc.

The extensive use of the *ICT* has a great impact on business, organizations and *e-commerce* transaction because is as a highway that facilitates the massive communication breaking the barrier of distance and time (Dhamacharoen, Kumpusiri, & Waiyakarn, 2019). *ICT* allows companies to make innovative proposals that help them achieve good economic results and grow too. (Jimenez Villalba & Moreno Acevedo, 2020). The use of *ICT*s generates a large amount of data where their analysis can reveal trade trends (Amado, Cortez, Rita, & Moro, 2018), volume productions (Tekin , Etlioglu, Koyuncuoğlu, & Tekin, 2018), personalized *marketing* (Behera, Gunasekaran, Gupta, & Kamboj , 2019). Furthermore, the knowledge extracted from the data can be used to provide guidelines for improving WEB use of *e-commerce* and user satisfaction (Carmona, Ramírez-Gallego, Torres Ruiz, & Bernal, 2012).

The history of anthropology, sociology and cultural studies motivated an interdisciplinary study that show consumption as a dynamic field that is nourished by all disciplines (Aristizábal García, 2020). In the context of *e-commerce*, there is a wide variety of scientific research and interest in the subject (Lingyun & Dong, 2008) (Luo, Xu, & Yao, 2012). To understand user's behavior, some researchers have focused on psychological models that could simulate consumer's thoughts (Shen, Zhou, Xu, Hu, & Hu, 2009).

Several factors, such as reliability, website quality, perceived risk in the transaction, customer satisfaction, among others, affect the consumer's intention at the time of electronic purchase (Anissa, Purwandari, Wilarso, & Sensuse), another important aspect of the study that should to be considered is the security of the transaction (Ilmudeen , 2019). The critical moment of care occurs during the *purchase-sale* (Barkatullah & Djumadi , 2018). Some studies affirm that the future of e-commerce depends on the development of extra-judicial mechanisms for conflict resolution adapted to internet dynamics. The mechanisms are called *online dispute resolution* (ODR) and they need capable of providing equal security and confidence to consumers and merchants, however, there is no agreed international ODR (González & Nava González, 2020). The problem is notorious, for example, in *Pacific Alliance* (PA) that it was integrated with four Latin countries. However, the PA is far from achieving its objective of greater integration and economic growth in each country (Licona Michel, Rangel Delgado, & González García, 2020). So, it is clear that one of the great problems in Latin America is the lack of comprehensive trade policy (Pesántez Calva, Romero Correa, & González Illescas, 2020).

This study presents a reflection of the answer to the question: "What does the *consumer* want?". It shows light answers to other research questions, but it is important to mention them because they establish a basis for further study from the exposed approach in this work.

How does *marketing* change *consumer desire*?

How to cause the *consumer* to enter an *avarice state*?

This paper is organized as follow: In the next section, the theoretical framework is presented, followed by a review of the characteristics of consumer and provider in the *e-commerce* context. The reflection about: "What does the *consumer* want?" is presented and: "What does the *electronic consumer* want?" is also included. Finally, the conclusions are given.

Background

A conceptual map is a tool of knowledge representation that resembles a bi-graph where each concept is a node. Arcs are used to relate concepts. The distribution of a conceptual map follows a logical link.

Figure shows that the concept *A*B* is justified only if concepts *A*, *B* are given previously and is reading as *if A and B then A*B*. Concepts *A*, *B* and *C* justify a concept that is explained by two background and this is interpreted as *if A and B or C then (A * B) + t1C*.
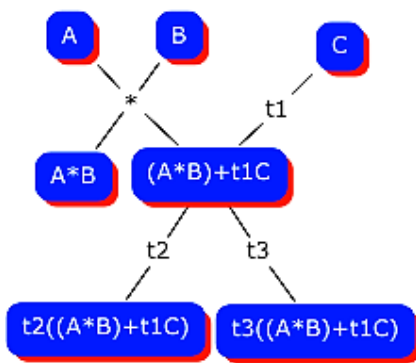
Figure 1 Logical concepts map
Source: (González-Castolo, Ramos-Cabral, & Hérnandez-Gallardo, 2016)

Definitions glossary

Product (P): Something that is offered in a transaction purchase-sale to attend a real or potential necessity of an entity.

Entity (E): Organization (O) or individual (I), Eq1.

$$E = O \cup I | O = \{I\} \tag{1}$$

Consumer (Cmer): An E that acquires a P through a purchase-sale transaction (pst).

Provider (Pder): An E that offers a P through a pst.

Consumer society: The consequent way in which E is related in a capitalist economic system.

Supply chain: This is referred to as the relations among E's to offer a P in the market.

Desire: A condition in which an E wants something and may become a need.

Necessity: A survival condition that approaching a perception of well-being.

Avarice state: Condition in which the Cmer buys a P.

In the context of *e-commerce*, the *Cmer* and *Pder* are online consumer and provider. They are called as *eConsumer* (eCmer) and *eProvider* (ePder) respectively.

eConsumers and eProvider

The existence of *P* is an elementary fact in a *consumer society* and therefore all *E* is a *Cmer* and a *Pder* simultaneously, Eq2.

$$E = Cmer \cap Pder \tag{2}$$

The above is also true for a *supply chain* of a specific *P* where there is an *intermediary* (Inter), Eq3.

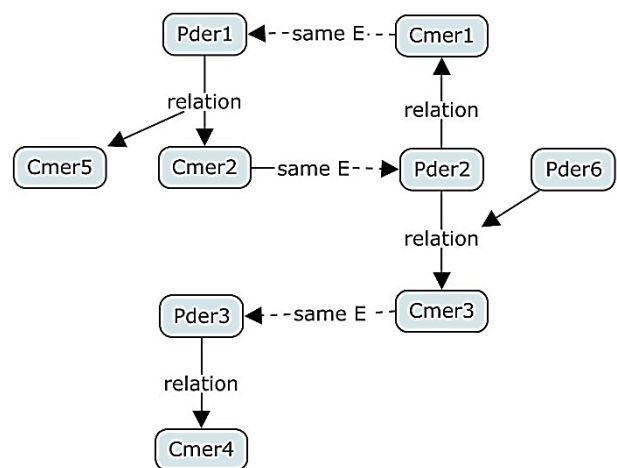$$E^P = Cmer^P \cap Pder^P | \exists Inter^P \in E \tag{3}$$

The previous equation changes if a specific *P* is for a *final consumer* (Cmerf) because the *E* can only be a *Cmer* or a *Pder*, Eq4.

$$E^P = Cmer^P \cup Pder^P | Cmerf^P \in E \tag{4}$$

In general, the *E* can be a *Pder* or a *Cmer* or both, Eq5.

$$E = Pder \cup Cmer \cup (Cmer \cap Pder) \tag{5}$$

Figure 2 shows that *E* could be *Pder* and *Cmer* at the same time. The *Pder* could attend more than one *Cmer* and more than one *Pder* could be attended for one *Cmer*.

Figure 2 Provider & consumer
Source: Own elaboration

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Electronic entity (eE) is manifested in e-commerce and this is a subset of E, Eq6.

$$eE \in E \qquad (6)$$
$$eE = eCmer \cup ePder \cup (eCmer \cap ePder)$$

Topics that are an important study in e-commerce are 1) offer, 2) marketing, and 3) security.

Sale-purchase cycle

Every *I* has necessities and unfulfilled desires, then every *I* is *Cmer* and potential *eCmer*. Every *I* seeks to survive (*care vital*). The *care vital* induces a *necessity*. Every *Cmer* has a *lifestyle* that is stimulated by the *social interaction* and *marketing*.

The *lifestyle* induces the *desire*. *Lifestyle* can become *care vital* and *desire* can become a *necessity*. The *desire* and/or the *necessity* induce a *problem* and this, in turn, induce a search for *solution* in the *market*. The *market* is where *Pder*s that offer *P*s are locaded. The *P*s offered and the *marketing* induce an *avarice state*. The *avarice state* induces to take out a *pst*. After completing the *pst*, the *P* is sent to the *Cmer*'s address. After the *Cmer* has the *P*, he evaluates whether it provides a problem solution. If the *P* is a problem's *partial solution*, then it induces a new *solution search*.

If the *P* is a suitable *solution* to the problem, then it can end the *sale-purchase cycle*. However, the obtained *solution* can be transformed into a *partial solution* through *marketing*, *lifestyle*, and *social interaction*. *Lifestyle* is self-induced with the participation of *social interaction* and *marketing*. *Marketing* originates from both the *Cmer* (in a recommendation way) and the *Pder* (in a commercial disclosure strategy way), Fig. 3.
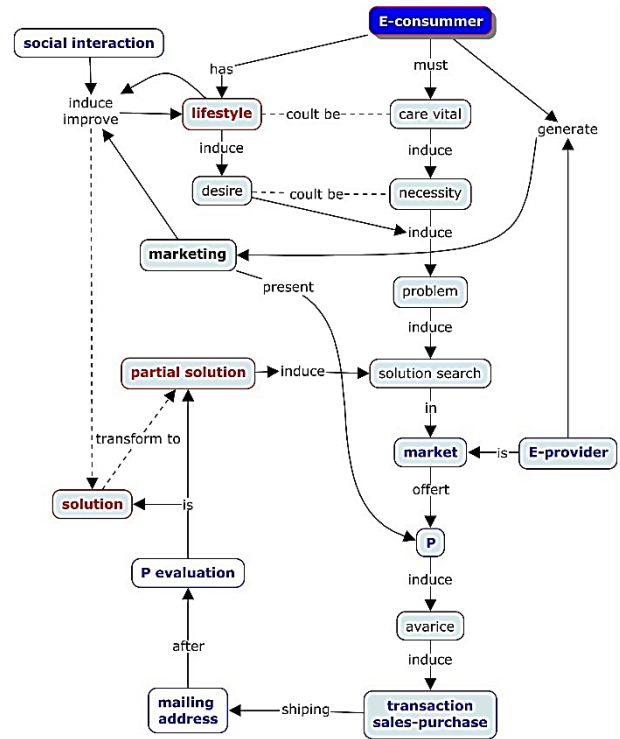

Figure 3 Sale-purchase cycle in e-commerce
Source: Own elaboration.

The components in *care vital* are related to physiological needs as food, health, and dress. The *lifestyle* is related to psychological needs. *Care vital* could be seen as a *lifestyle*, and viceversa. The swap occurs in the *I*'s head. The necessity and desire are equivalent in this condition. Then the *psychological satisfaction* is the principal component to attend in the *consumer society*. The *I* wants to improve his condition and living space.

A *P* is a *satisfier*. The *I* buys *satisfiers* that do not attend the order of Maslow's pyramid. The marketing approach is oriented to offer elements to attend the top of that pyramid. The optimal goal of marketing is to maximize *I*'s spending without harming his financial health.

The *problems* induced by *necessity* or *desire* are tangible or intangible. The *tangible problem* could be fixing a car or attending a physical condition. The *intangible problem* could be getting the latest smartphone or taking a vacation in an elegant place. A variety of *P* exists to attend the problem total or partiality.

The *Cmer* wants the *P* (solution) to attend to the problem in a *simple*, *fast*, *efficient*, *optimal*, and *economic* way. The *simple solution* is always better. The *fast solution* helps to eliminate the problem quickly.

The *efficient solution* is that it eliminates the entire problem. The *optimum solution* is that there is no waste of *P*. The *economic solution* indicates that its value is much more expedient than the cost of the problem. *P*'s price is regulated by marketing. Many P are integrated with surpluses that stimulate the ego-mind to sell at a high price. The social phycology stimulates the market but the marketing makes necessities. The consumption limit is set by money because the *I* cannot be satisfied.

What does the consumer want?

The *consumer society* creates needs through marketing. The *Cmer* wants satisfaction before, during, and after purchase the *P* and therefore improve their mood. But, what thing would improve the mood? For example, improve life quality, and social status, next, improve family conditions and social environment.

The consumer's ideal is to purchase a *P* that provides pleasure indefinitely. The product must give pleasure since it is known, bought, and used (property).

A reasonable case is accepted when the *Cmer* buys a *P* that has benefits it promises. The marketing says about these benefits. In this case, the message must be precise.

The general characteristics that the *Cmer* wants from the *Pder* are listed below:

Trustworthy. It means that *Pder* always complies with the rules of the sales-purchase process.

Honest. This characteristic is observed when the *P* is faithfully described and does not hide something unfavorable for the *Cmer*.

Fair. It refers to the fact that there is no over-price of the *P*. Note: The *P* could be the over-price but the *Cmer* must know it.

Attentive. This feature is shown when *Pder* solves the questions, eliminates worries and makes that *Cmer* feel that is important to have him as a client.

What does the e-consumer want?

In addition to the above, *Cmer* has additional requirements in the *e-commerce* scenario. Some ideal demands that *eCmer* wants to find in *ePder* are described. It is necessary to clarify that some of the requests may be more general.

Desirable characteristics in the sale-purchase transaction

The transaction is the most important event in the sales-purchase cycle. Security is the most notable feature in the transaction. It is referred as the certainty that the parties (*eCmer*, *ePder*) agree to respect the process rules of sale-purchase. Clear rules are necessary in process violation case as product condition anomaly, product delivery time anomaly, payment method, and/or payment time. The e-commerce scenario is different from traditional because the transaction is paid first and the product is received commonly afterward.

Aspect of security	Recommended Action	Justify
The payment is channeled to the e*Pder*'s account	Feedback on the payment transaction	Immediate attention when some problem is detected
The payment operation	Offer many forms of payment and/or one that must be similar to giving and receiving in a traditional transaction	Avoid the risk of credit or debit card data usage and/or the risk to going a physical business establishment to pay
The *ePder* agrees to has received payment for a product	Feedback about requisition status and/or the corresponding payment	Avoid that *eCmer* from getting nervous
The *eCmer* receives *P* with precise conditions according to the offered state	The description of the *P* must accurately illustrate its condition and that such information reaches the *eCmer*	Prevents *eCmer* from feeling cheated
Transport is transparent in the sales-purchase operation for the *eCmer*	The purchase-sale operation must satisfactorily compensate for any inconvenience or damage suffered by the product in its transportation, as well as any inconvenience for the delay	Avoid anything with transportation because it gets the *eCmer tired*

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Satisfaction	Possibility of returning the P easily and without additional charge to the *eCmer*	Many *P* must be physically appreciated such as clothing, food, perfume, etc.

Table 1

Some other features besides security.

Ideal aspect	Recommended Action	Justify
The *P* is obtained right now	Manage the shipping schedule by *eCmer*	The action must be efficient as the payment is made
Easy payment	Different alternatives to make the payment. Development of applications and/or procedures for payments with standardized and/or intuitive use criteria	Avoid tiring the *eCmer* with the process
Easy tracking and/or *P's* location	Development of tutorials and recommendations to use app and/or portals web	Avoid *eCmer's* nervousness about the *P* situation
Easy exchange or refund	The money back and/or product return process should be simple	Guarantee *P's* satisfaction and avoid frustration and/or disappointment.
Easy communication with the *ePder*	Guarantee satisfaction of P and avoid frustration and/or disappointment.	Trust is fostered, which is a complement to satisfy the shopping pleasure of eCmer's

Table 2

Desirable market characteristics (Offer)

The buying and selling cycle has an addictive and stress component. The stress component is due to the uncertainty of the functionality of the product, the expense of money, the interaction with the supplier, the purchase-sale process, etc. The addictive component is due to novel experience, pleasant associated memories etc. The functionality of the product refers to the quantity and magnitude that stimulate the senses in a pleasant way and/or that satisfy the psychological state.

Ideal aspect	Recommended Action	Justify
After-sales support	Any concern and/or doubt of *eCmer* about *P*, be addressed immediately	Increment the satisfaction that has *P*
Locate any *P* easily that could help solve the problem solve	The WEB portal must be adaptable to the search for *eCmer's* solutions	Provide solutions to the problem
Easily Comparison of *P* prices and benefits	Development of functions to make comparisons and/or adaptable filters to *eCmers*	Facilitate choice P
Easy recreation of *P* in the environment of use	Use of virtual and/or augmented reality; use of tools for superimposes the product on an image loaded by *eCmer*	It helps to increase the pleasure to buy and guarantees the pleasure of having the product after purchase
Notifications decision about improvements of *P* and/or new related *P*s	Pop-up windows or message	It is respectful because it recognizes the decision of *eCmer*
Personalized attention	The use of *artificial intelligent*	It helps to increase the *eCmer's* pleasure to buy
Unlimited warranty	Take the old product when buying a new one	The *eCmer* will feel that he/she is always winning and/or does not lose

Table 3

Desirable characteristics of the P (Demand)

In order to give satisfaction (tangible and/or intangible) to *eCmer*, the product benefits must be *cheap*, *durable*, and *practical*. These characteristics are relative because they depend of time, situation, and each individual.

Ideal aspect	Recommended Action	Justify
Easy to use	Applied ergonomic features and/or providing resources to learn how to use it	*eCmer* enjoys using it
That delights the senses like touch, sight, hearing, smell and taste	The development of technology that recreates the characteristics of the product	*eCmer* enjoys buying it
That strengthens and/or improves the social position	Pay attention so that marketing makes the difference	*eCmer* enjoys having it

Table 4

Desirable eCmer's sensations

In summary, *eCmer* wants *P* to satisfy his needs and/or desires. Also, *eCmer* wants to feel important, that someone understands his life vision and dreams, that someone attends his questions.

- Satisfaction to search P.

- Satisfaction to find P.

- Satisfaction to buy P.

- Satisfaction to use P.

- Satisfaction to have P.

Desirable sensations in e-commerce use

The *eCmer* does not always know about a product and/or service. Even more, he does not know what he needs and/or wants. Search, offer, and purchase of products from the description of needs is convenient.

- Pleasure to look for P.

- Pleasure to locate P.

- Pleasure to buy P.

Conclusions

This paper presented a description of the elementary aspect of *e-commerce*. The sale-purchase cycle is shown together with some formal elements that support the reflection of this paper. The role of the consumer in the market is evident in the sale-purchase cycle and this is the basis on which transactions are justified in the market. Also, here is notorious that its relevant to pay special attention to all negotiation points in the sale-purchase process because it gives positive product support with consumer and social media. The answer to the question "What does the *e-consumer* want" is presented and it considers different aspect as security, product, payment methods, etc. to attend the question. This work is relevant because shows the *e-commerce* scenario taking the *e-consumer* as the principal protagonist and the reflection can be extended to general commerce.

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