Analysing the Consumer Behaviour of Online Health Services

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Abstract

Because the medical sector is a highly conditioned technology, it presents some challenges for health service providers in terms of developing and implementing online services strategies. This article presents the features and current trends of the consumer of online health services, but also the threats and vulnerabilities on managing telehealth services. The results show that it is necessary to continue monitoring of the environment and developments in the field, because the technological breakthroughs lead to the improvement of the quality of the online services rendered and to the diversification of the offer, as well as an advantage over the competitors.

1. Introduction and literature review

Regarding consumer behavior, there is no generally accepted definition. This concept is used by specialists in different contexts, resulting in a multitude of definitions.

From an economic point of view, human behavior is not a mere summation of mechanically repeated acts, but is the result of accumulating a life experience. At the same time, the analysis of consumer behavior from the point of view of economic theory is a complex analysis that involves "taking into consideration aspects regarding the economic utility, preferences, constraints and possibilities of choice of the consumer" (Grande and Taylor, 2010). As a result, consumer behavior: it is dynamic - it changes according to the evolution of social conceptions and conditions; it involves interactions between what consumers think (perception), what feel (impression) and how they act (behavior); determines exchanges or transactions between participants (sellers and buyers).

From a psychological point of view, the behavior represents "the conduct of a subject considered in an environment and in a given unit of time. Behavior, which depends on both the individual and the environment, always makes sense. It corresponds to the search for a situation or object that can reduce tensions and satisfy the individual's needs" (Feng and Xie, 2015). Every decision to buy the consumer is his response to the emergence of an unmet need. When the consumer becomes aware of an unmet need, he or she goes through a series of steps until the actual manifestation of a certain purchasing behavior.

Consumer behaviour - an essential component of human behaviour - can be defined as representing all the individual or group decisions made directly related to the obtaining and use of goods and services, in order to meet current and future needs, including previous decision-making processes, and determines these acts (Bones *et al*., 2007).

Over time, there have been numerous theories that have tried to explain human behavior, some of them taken up by specialists in studying consumer behavior. These include:

• Sigmund Freud's theory that explains human behavior through psychological forces acting from the subconscious;

• Abraham Maslow's theory states that people are motivated in their actions by certain needs. Maslow hierarchized the needs of the individual starting from the most pressing to the least pressing, as follows: physiological, safety, social, respect and achievement and self-improvement needs.

• Frederick Herzberg's theory is based on two categories of factors that motivate the individual: factors that produce dissatisfaction (lack of comfort in health care units) and factorization generate satisfaction (comfort acts as a motivating factor in choosing certain units).

In the specialty literature, consumer behaviour is structured on two basic components, with important implications in health services, namely purchasing behaviour and consumer behaviour (Shahab *et al*., 2014). Therefore, the study of the consumer behaviour of online health services should not be limited to the individual as the end user, but should also focus on studying the relationships between the provider and the consumer and especially on the set of factors that can influence this behaviour. In online health services, purchasing decisions most often require the presence of several participants, who fulfil different roles: influencer, decision maker, buyer or user (Feng and Xie, 2015).

The sources of consumer information are differentiated into internal and external sources. As a result of previous experience and belonging to a certain cultural environment, each consumer has a certain amount of product information. When placed in the situation of making a purchase decision, the consumer will engage in an internal search for information on product alternatives. Usually, however, even the most experienced consumers need additional information, engaging in an external search for information (advertising, personal sources, etc.).

On the other hand, technological change requires any medical organization to adopt a clear perspective of its work and to develop strategies that will separate it from its dependence on fixed service revenues (Maji *et al*., 2008). New technologies such as telehealth help change health care services. According with Liu *et al.* (2008) the telemedicine is vulnerable to security breaches, the security of personal health information in telemedicine applications is paramount and the goal of system and software design is to identify all potential vulnerabilities and provide countermeasures to remove or mitigate risk.

As the hospital industry grew and an increasing number of services were introduced, it continued to orientation on online health services (Hallyburton and Evarts, 2014). Demand for primary and secondary medicine was considered inelastic, and no attention was paid to the client/patient, and even less to the potential consumer. Most health care providers held the monopoly or oligopoly in the market they were operating, and the emphasis was on delivering the quality of the online services they provided (Xiao *et al*., 2006).

As patient competition was on the rise, both hospitals and other healthcare providers continued their promotional activities, especially public relations. At the same time, the number of patient satisfaction surveys has increased.

Moreover, the online healthcare providers must recognize that the educated population is growing, consumers are more concerned about their health, ask questions and seek answers (Grande and Taylor, 2010). Today, more than ever, consumers are looking for the services offered by responsible, market-oriented organizations to the customer. In addition, the consumer is now viewed in a new perspective as a combination between the traditional patient and the contemporary consumer, having much more knowledge about the online health system; open to innovations and with an active role in the process of diagnosis, treatment and maintaining health. Individuals are looking more like consumers than patients, and they expect to receive information, ask to participate in the decisions that directly affect them and insist on receiving online health services at the highest quality level.

2. The specific feature of the consumer of online health services

Unlike other areas, where as a rule, the number of consumers is limited, in online health services, anyone can theoretically become a consumer at a time, so that the market potential is very high (Li *et al*., 2010). Practically, the online health services market is driven by a series of processes that make it unable to function as a typical competitive market, due to the constraints that exist both as forms of regulation and imposed by the nature of services. Thus, this market differs from the other markets of the economy through a series of elements (Feng and Xie, 2015):

• the experience of developed countries on the online health services system demonstrates that the existing problems in this area cannot be resolved without the involvement of the state;

• in certain situations (eg. in infectious diseases) the recipient of these services is not only the individual patient/individual, but also other people through preventive measures;

• creating a mutual trust leads to the communication between the doctor and the patient, causing the diagnosis to be established accurately and the patient strictly following the doctor's directions.

• online health service is one strategy for monitoring and communicating with patients beyond the acute care setting.

The behavior of the consumer of online health services is the result of a complex of factors, which act with different intensities. There are, in the specialized literature, a number of authors who have focused their efforts in order to identify the factors involved in explaining this behaviour (Kontos *et al.*, 2014; Kim *et al.*, 2012). The level of the accepted service depends on:

• the perception of alternative services, which can lower the minimum level - if the consumer has more alternatives, he sets a minimum level of expectations higher than when the number of options is narrower;

• the perception of its role on the service, but also its contribution to the service delivery - in the health services, the consumer's contribution to the service depends on its quality (for example, when the consumer is aware of the failure to comply with certain indications or treatments the level of the accepted service is lower);

• situational factors (emergency situations), can lead to the shortening of the minimum level of expectations for a short period of time (for example, an urgent dental problem may cause the consumer to consult the nearest medical office). On the other hand, however, there are cases in which emergency situations tend to raise the level of the accepted service, the consumer waiting for the family doctor, for example, to respond promptly to his requests.

• the expected service, determined according to the consumer's own experience and information from the environment. A high level of expected service means that the minimum level of expected service is high and the tolerance area narrows.

Numerous researches have shown that socio-cultural factors play a major role in determining the individual's behavior regarding health. Opinions or beliefs about illness, infirmity or death, cultural information on the causes and treatment of diseases, empirical healing practices, etc., are cultural components that may or may not motivate individuals to accept or deny the role of the patient, to seek or to postpone medical care (Li *et al.*, 2010; Shahab *et al.*, 2014).

Furthermore, in finalizing the purchase and consumption decisions the role of the family is decisive, exercising the strongest influence on the consumer of health services. Considered a social group of belonging, the family - having as a reference system other social groups - influences the behavior of the individual due to the intense cohesion and interdependence between its members. Within the family, the individual forms his personality as well as most of the economic, political or other opinions.

The level of education influences both the demand for health services and the type of services requested. People with a higher level of education, although affected by less serious health problems than those with a lower level, resort more to health services, especially to specialized ones, with direct payment to those offered by primary care. The increase of the level of education has produced changes in the behavior of the consumer of health services, the current consumers being much more informed, more open to innovations and willing to play an active role in decision making.

The variables presented, although of great importance, are not sufficient to explain the complexity of consumer behavior. Thus, it is necessary to consider a number of endogenous variables such as perception, learning, attitude and motivation.

The way in which health organizations and services are perceived depends on a number of elements, namely: the ambience (in the sanitary units there is a certain ambience determined by the colors used to decorate the salons, cabinets, the clothes of the staff, the existing atmosphere, the specific smell, etc.), the material elements of the benefit (the equipments and equipment), the communication between the medical personnel and the personal - patient, as well as personal aspects of the individual (fear, stress, previous experiences, etc.)

The learning process takes place permanently, both consciously, at school and in the family, but for the most part, it occurs unconsciously as a result of external experiences. Consumer habits are learned in the first years of life and differ from one region to another, depending on traditions, customs, and values.

The reasons have a pronounced multidimensional character, being built between biological and social, between internal impulses and knowledge, between subjective necessity and value as a reference system, between relations with objects and connections with people, etc., and therefore cannot be reduced to either one of the factors that influence them. The consumer presents a universe of motivations, which cannot be directly observed, which makes their research difficult.

Also, consumers form certain dominant beliefs about products and services. Because the cognitive system can hold a relatively small amount of information, the dominant beliefs are used by the consumer to analyze the products and services offered. Usually, the dominant beliefs will be the ones that consumers will hold as the most important ones, but only the most recent ones will be exposed.

Withal, there are a multitude of factors that can influence the doctor/patient relationship in the online medical services, factors with both positive and negative impact (Feng and Xie, 2015). Factors that have a positive impact on this relationship include:

• permanent and real-time communication between doctor and patient about the nature and severity of the disease;

• patient's previous experience in relation to the doctor and in relation to the disease;

• the therapeutic regimen is simple, the instructions are precise and concise;

• continued involvement of the doctor in relation to the patient's problems.

The categories of factors presented once again support the particular complexity of consumer behavior, which ultimately is the basis for the purchasing and consumption decision-making process and for online health services.

The main qualitative research methods used by online health organizations are (Kontos et al., 2014):

• in-depth interview - addresses problems in a manner specific to a psychological study that seeks to ensure that the subject under investigation provides information to the researcher that is unconscious or does not wish to mention, the subject being discussed is complicated, confidential or sensitive. Most often in health, in-depth interviews are used to get information from the staff of the organization: healthcare professionals (innovators in the field), administrators (have a broad perspective on issues), board members (have a big influence on making decisions) etc.

• group reunion is a way of discovering predominantly the attitudes with great ease, and it is possible to see how opinions are formed and changed during a discussion and what factors are causing these changes.

• The mysterious buyer technique consists of simulating the purchase of health care products and services by previously unknown people. The disguised observation method provides valuable insights to management, allowing a good investigation into the behaviour of staff in the process of providing the service.

• Repertoire grid interview (Kelly Grill) is a technique used to study the perceptual process of consumers about the characteristics of health services. Applying this technique involves two steps: applying the Kelly Grid to know the attributes used by consumers; applying a factorial modelling model to reduce the number of sizes produced by the Kelly Grid to a relevant number of relevant factors that can be used later in quantitative research.

The decision-making process of purchasing an online health service, respects the stages of the decision-making process characteristic of the purchase of other goods and services, by following the following steps: the emergence of an unmet need; searching for information and identifying alternatives; mental evaluation of alternatives; the result of the evaluation; post-purchase evaluation (Kim et al., 2012).

Although the need for online health services may exist, the decision-making process is not triggered until the individual recognizes that he or she has a certain health problem or wants to prevent imbalances in his or her state of health. Also, the recognition of the problem is not sufficient; the consumer must want and ask for competent help.

Once the problem is recognized, the next phase of the decision-making process is the search for information (Shahab et al., 2014). The process of searching for information for purchasing online health services differs considerably from seeking information for other goods and services. In this context, the main sources of information can be used as personal sources (acquaintances, friends, and relatives), medical personnel, mass-media and the Internet.

From the numerous information they come into contact with, the potential consumer of online health services will only retain those they find useful, taking place a process of evaluating the alternatives considered.

Following the evaluation process, the consumer decides on his behaviour regarding the purchasing decision process, selling the following alternatives: to buy the service, not to buy the service or to delay the purchase.

The package of services purchased in the case of health services is provided in an interactive way. The quality of the service provided depends also on the quality of the communication between the consumer and the provider, as well as on the way in which the former defines what he wants and expects from the provider (for example, the accuracy of the diagnosis made by a doctor depends on the description of the symptoms by the patient).

In the post-purchase stage, consumers compare the service received with the one they expected to receive. Depending on the quality of the service, the result may be below expectations, at the same level or may exceed consumer expectations.

Online medical services are characterized by a series of attributes, considered more or less important by different consumers. At the same time, a consumer's attitude is influenced by various factors, including the reaction of third parties to certain actions of the consumer.

3. Result and discussions

In the last few years, the digital revolution represents a significant influence on consumer behavior that will be accentuated as the number of Internet users' increases. The Internet has already changed the way consumers interact with the service offer.

In health services, due to their characteristics, demand has to be seen from two points of view, namely the consumer/ patient and the provider. The client/patient's point of view regarding the demand for health services may differ from that of the physician because:

- the consumer /patient has a less "scientific" perception of the disease, its causality, its evolution and its treatment ;

- the consumer/patient only partially knows the characteristics of a particular disease because the diseases are scientifically defined;

- for the consumer/patient, the period is limited in time because it emphasizes the current manifestations of the disease rather than its subsequent consequences;

- the consumer/patient is more concerned about the impact of the illness in terms of discomfort and interference with the activities of a normal lifestyle as defined by its place in society.

However, knowledge of consumers' needs and their image regarding health services are not sufficient unless accompanied by a number of specific strategies at the level of the organizations in the field.

The nature of the relationship between the doctor and the patient does not fall within certain limits; it is always problematic and can be affected by conflicting views and attitudes. Thus, in the physician-patient relationship, two types of behaviours appeared: the social behaviour developed within the community and the personal behaviour, which manifests according to the nature of each of the two participants in the process of performance. In this regard, online health providers are making efforts to change the optics of approaching business, moving from product orientation to consumer orientation.

4. Conclusions

The environment in which online health organizations are operating today is constantly changing, requiring a thorough knowledge of changes, factors of influence, and future developments. The shift from product orientation to market orientation towards the consumer has forced online health organizations to adopt ways of knowing it.

In order to explain the behaviour of the online healthcare consumer, it is not enough just to study the behaviour of the healthcare consumer, but also the relationship between medical staff - especially the doctor - and the consumer as the main determinant of his behaviour and consumption. The significance of this relationship is extremely important for online health services because the creation and delivery of services and their quality depend to a large extent on the relationship between the two. Medical staff can help improve this relationship by constantly informing the consumer through a realistic picture of the illness and the judicious use of the possibilities and resources available to the consumer.

Many healthcare providers have become aware that they can only increase their market share through online services, and once some organizations have started using online methods and techniques, many others have followed them.

On the other hand, quantitative research is used to know the characteristics of online healthcare consumers to identify their preferences and purchasing intentions and consumption to quantify the impact of various factors on purchasing and consumption, market size and potential market outlook, assessing the efficiency of distribution and promotion methods, etc.

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