MODELING USER SATISFACTION OF MEDICAL EDUCATIONAL SERVICES

Ivona Stoica[1]
Anamaria-Cătălina Radu[2]
Andra Dobrescu[3]
Olguţa Anca Orzan[4]

ABSTRACT: This study aims to create a conceptual model for users satisfaction of medical educational services who attended the training professional sessions in the project called "Professional training for implementing new technologies in the health care system." The results of the research obtain from the multivariate analysis on user satisfaction of medical educational services was conceptualized and testedby creating a model to identify the main factors that influence the participants' satisfaction. The main factors that define the conceptual model are quality medical education, medical utility of the provided information, the location where the professional medical education training sessions were developed, and the control effects such as graduate institution prestige, respondents' age, medical specialty, number of years of practice of the medical specialty. To test the model, data were operated and analyzed using the IBM SPSS Statistics 20.

Keywords: satisfaction, medical educational services, european funds, conceptual modeling

JEL Codes: C12, C18, C52, C82, C83, M31, I10

Introducere

Nowadays, the companies are facing with an increasingly intensity of market competition. In order to survive and success, to differentiate from the overly competitive competitors, the companies must develop their philosophy, marketing strategies, human and material resources towards the consumer satisfaction through providing goods and services which meet their expectations.The perceived level of satisfaction varies from person to person. More specifically, while the satisfaction for some people is found at a normal level, as identified by the term „OK", others will distinguish it at the moment they reach a certain level of happiness, considering it the fulfillment of the expectation (Hague & Park, 2005, p. 2).

The first attempt to define this concept took place back in 1965 when Richard N.Cardozo had realized the essay that had the theme of efforts, expectations and consumer satisfaction (Muntean, 2010, p. 75). For over 30 years, along these years, despite the numerous opinions about the definition of consumer satisfaction, however it hasn't come yet to an agreement regarding the definition of this concept.

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[1] Romanian American University, Romania, *e-mail: stoicaivona@yahoo.com*
[2] The Bucharest University of Economic Studies, Romania, *e-mail: anamaria_radu15@yahoo.com*
[3] The Bucharest University of Economic Studies, Romania, *e-mail: andra.dobrescu29@yahoo.com*
[4] Carol Davila University of Medicine and Pharmacy in Bucharest, Romania, *e-mail: olguta@gmail.com*

Consumer satisfaction. Definition. Concept. Process.

A clear definition concerning satisfaction, was based mainly to the disagreement of opinions regarding to take under consideration this concept as a process or benefit.

There are many authors such as Bolton and Drew 1991, Howard and Sheth 1969, Tse and Wilton in 1998, considering satisfaction as a cognitive response, and others Cadott, Woodruff and Jenkins beleives it is an affective response. (Muntean, 2010, p 76).

The term of satisfaction „is not exactly the difference between short-term interests of the individual consumer nor the interests and long-term welfare of human society, viewed as a collective consumption" (Caluschi et al, 2004, p 86). Between these two categories of interest may occur significant differences or contradictions mainly because of excessive satisfaction of immediate pleasures oppose the consumer's level of satisfaction with the long-term welfare of human society, in a holistic perspective.

The modern lifestyle captures more and more obviously the willingness of people to total dedication and unconditional over the short term satisfaction, which leads to ignore and discreditation of long term prospects. In the 1994, Halstead, Hartman and Schmidt have defined satisfaction consumer as "an affective response of a given transaction resulting from the comparison made by the consumer between product performance and standard pre-purchase" (Muntean, 2010, p 78). It may be mentioned that during use or after use of the product, the consumer perceives the product's quality according to the size that deem to be important to him and observes if the product it does gives a feeling of satisfaction or not.

According to Kotler (2012), customer satisfaction is "the extent to which perceived performance of the product is identified with consumer expectations." A consumer can be satisfied or not by the feelings of pleasure or disappointment that it holds on a particular product by testing it.

This conclusion can be drawn only by comparing the performance of the product and an actual performance presented, after it is used by the consumer. Although there are many points of view regarding the definition of customer satisfaction, they all have in common the following three elements (Muntean, 2010, p. 80): consumer satisfaction is an emotional response, cognitive or conative, the answer is based on consumer expectations, the products, consumer experience, etc and the response occurs at a certain point in time (after consumption, based on some experiences accumulated in time, etc.).

Customer satisfaction is the answer acquired over of a consumer situations, where the performance of the product is in line with or exceed expectations and eventualy, the consumer is satisfied with the product.

Consumer satisfaction measuring methods

A mistake that most of companies often makes, its to focus its attention on the level of market sharesover the consumer satisfaction. This choice is not quite right and can not form the basis of future decisions because the market share is an indicator that reflects an action that happened in the past while the customer satisfaction perspectives captures issues in the future. Where will decrease consumer satisfaction it will directly produce the decline of the market shares (Kotler, 2003, p.41). Therefore, companies needs to monitor and improves the level of consumer satisfaction. The more the consumer satisfaction increases, the more the degree of consumer satisfactions maintenance increases.

Most companies measure systematic methods by which they will act with consumers and try to identify factors that depend on their satisfaction, as a result of continuous change of marketing actions.

One of the most effective methods for measuring consumer satisfaction is to perform periodic surveys (Keller and Kotler, 2012, p 129). The survey is a method of measurement that is based on a

questionnaire managed by a representative sample of respondents which collects primary data (Cătoiu et. Al., 2009, p 275).

It is one of the most common methods used in the marketing research because it can lead to many answers to a variety of questions relating to consumers, such as behavior, intentions, knowledge, motivations, and demographic aspects related to their lifestyle (Malhotra and Birks, 2007, p 265). Through the survey we can directly track and monitor customer satisfaction, being included additional questions to measure consumer repurchase intention and the possibility offeeling the desire to recommend to others the company.

When undertaking a study on consumer satisfaction, you should consider the following aspects(Moseley, 1993): relevance - to expose only what it is important for the consumer, representative samples, the aim of the questionnaire on the subject studied; conclusion - the questionnaire has to be as short, clear and concise as possible, to enable dialogue – to offer respondentsthe opportunity to describe in their own words what satisfied them or not;to identify real consumers and the data aplicability – how exactly will be applied the collected data.

In order to improve the measurement of customer satisfaction, it is more likely that for the questionnaire to include digital types scales and to no go for introducing scales with a neutral category (eg, Likert 's scale) because respondents will have more possibility to choose (Coelho and Esteves, 2007).

The most important condition of surveys on measuring customer satisfaction is multidimensional multiatributive which implies that all the experiences of using a product to be categorized into levels of component and varying levels of intensity of positive or negative toward to each level (Datculescu, 2006, pp. 335-336). We must bear in mind that it is a general recommendation and therefore there is a series of strategic requirements that must be taken into consideration.

One of the most specific type of scales used among the studies of measuring consumer satisfaction is the numerical scale of 10 points. The main reason why it is the most often used type of scale,over the scale of 5 points,its refers to the validity of the data (Brace, 2004, p 74). The 10-point numerical scale generates a much higher validity of the data and manages to explain more precisely the relationship between the main variables relevant for determining consumer satisfaction. According to Coelho and Esteves (2007), both types of scales 5 and 10 points, produces similar rates of non - response and the average. When using the numerical scale of 5 points, most respondents will tend to select the point in the middle of scale to reduce the effort to respond to questions.

According to Jamieson (1996), measuring customer satisfaction through the measured points on a 10-point numeric scale, won't provide answers that can then help companies to find the ways to improve the quality of services provided. Customer satisfaction research should not only show the dimensions that need to be improved, but to be includedthe relative priority and an indication to compare current standards of consumer and their expectations.

Quantitative measurement should be followed by qualitative studies and thus resulting the combination of quantitative measurement and qualitative research. The purpose of qualitative studies is to identify and determine the degree of satisfaction. In previous qualitative studies can be drawn towards truth and reason about consumers just by considering the fact that data has been overlooked, but are still relevant to the current study (Cowan, 2011, p 6).

Methodology

The following study aims to identify the level of participant's satisfaction as a result of using medical educational services at the training session held in Sibiu, in the project, *„Professional training for implementing new technologies within the Health System”.*

The aim is to determine the level of participant's satisfaction by trying some services experienced by customers and also to identify the factors that have the greatest influence. In the study it has been taken into consideration respondents' views regarding: the quality of the received materials, the information submitted, the sources of information about the event, the reputation of the project and the training sessions, capitalization of the training session by establishing relationships with the invited lecturers or the participants, the quality of the provived services and feedback regarding the place in which the training session was held, the default services (accommodation, food, environment), the quality of the event. Research activities aimed at the endto achieve a making model to identify the main factors that has the power to influence medical employees satisfaction regarding educational medical services offered within the project *„Professional training for implementing new technologies within the Health System".*

Research about satisfaction of the participants at the training sessionheld in Sibiu, in the project, „training for the implementation of new technologies in health" was held online, using a questionnaire that was posted on the platform eSurvey during 2-5 July- 2013. The online questionnaire was distributed to respondents who participated in the training session on e-mail,the respondents being were asked to provide all the information that they have been requested. Data from the research were analyzed using the IBM SPSS Statistics 20.as far as the model developed is concerned, the data were processed and systematized with the IBM SPSS AMOS 20.

Results of the research

Regarding the overall picture of the training session formed among the respondents, it can be easily see that 3 out of 4 of them said they were very satisfied about the training session attended, while only 21.6% of all respondents claimed that they have shaped a favorable image of the event.
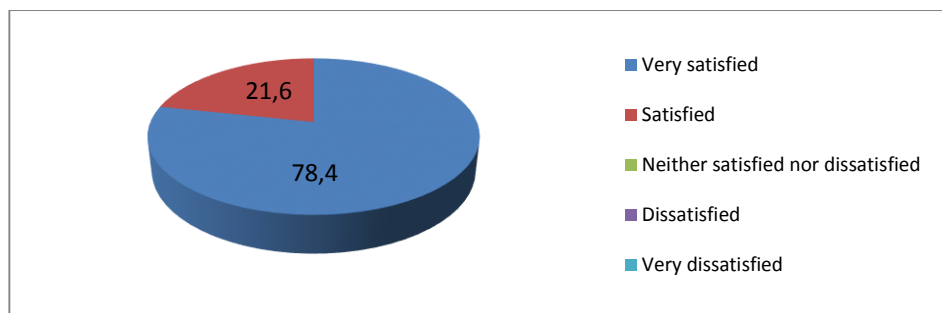

Figure no. 1 - Respondent's satisfaction regarding the professional training medical session

Regarding to the quality of care education, most respondents claimed to be very satisfied with the professional prestige lecturers who lectured at this training session (85.1% of all respondents), followed by those who considered very satisfied by the quality the services that have provided during the event (79.7%)as those who said they were very satisfied with the quality of presentations by lecturers (78.4%). In conclusion,the gain result and the image of the training session, can be seen that also in the case of specific characteritics of the professional training session which has registered a very favorable image among respondents.
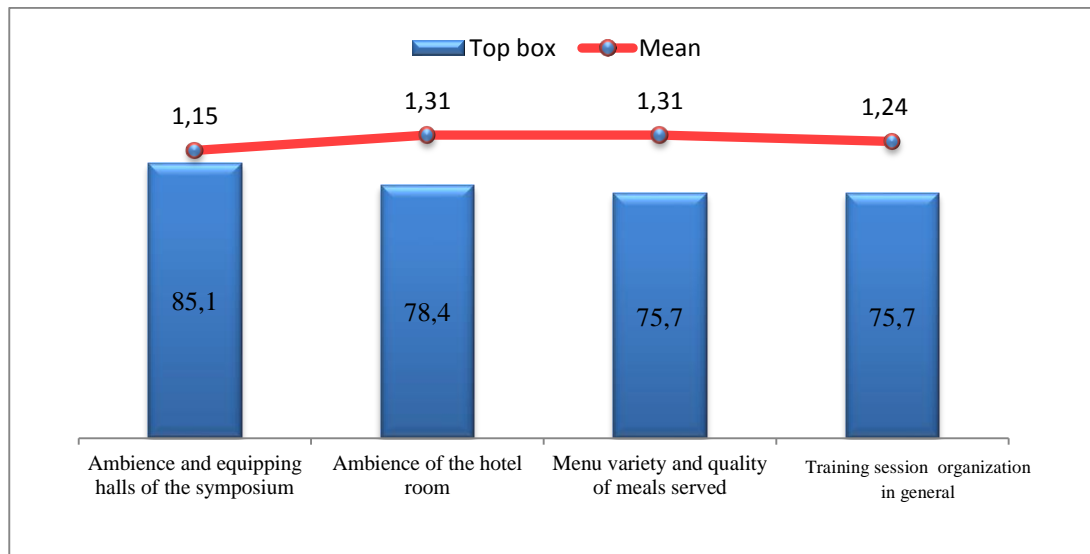
Figure no. 2 - Top box for training session image

Regarding the usefulness of educational medical services, it can be observed that for each characteristic analyzed, 9 of 10 respondents declared their agreement. Moreover, over 70% of cases, respondents expressed total agreement to participate in the training session and regarding the quality of work that were presented during the training session.
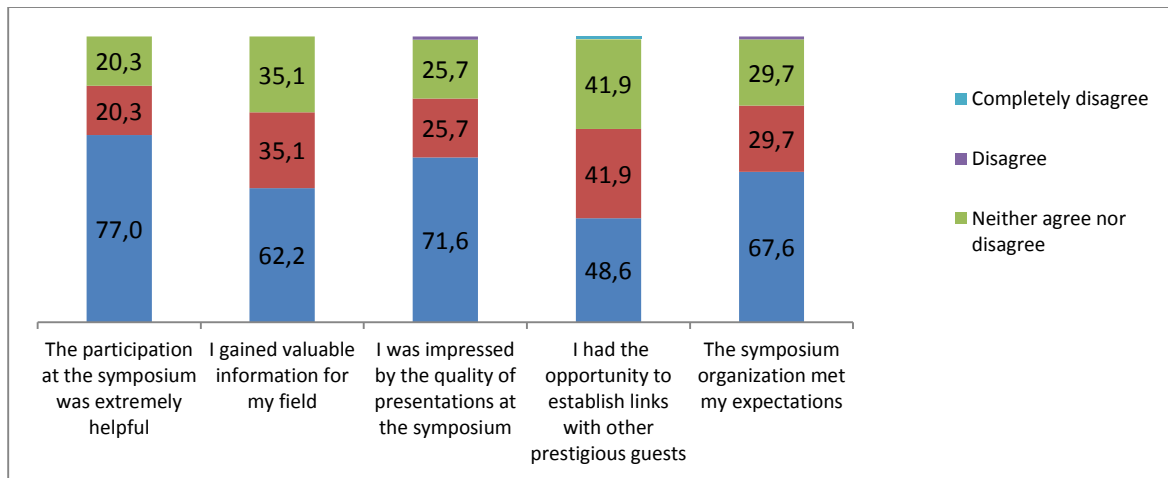

Figure no. 3 - Appreciations regarding the training session image

Overall, 60% of respondents says they are very satisfied with the specific attributes of the organization of the training session. The most appreciated factor chosen by 85.1% of respondents, it is the satisfaction of respondents on the environment and equipment rooms reserved for the event, followed by satisfaction with regard to hotel room environment (78.4%), organizing the training sessionin general (75.7% respondents) and the registered average (1.24), as well as the menu variety and quality of the meals that respondents have served during the event (75.7% and the average of 1.31).
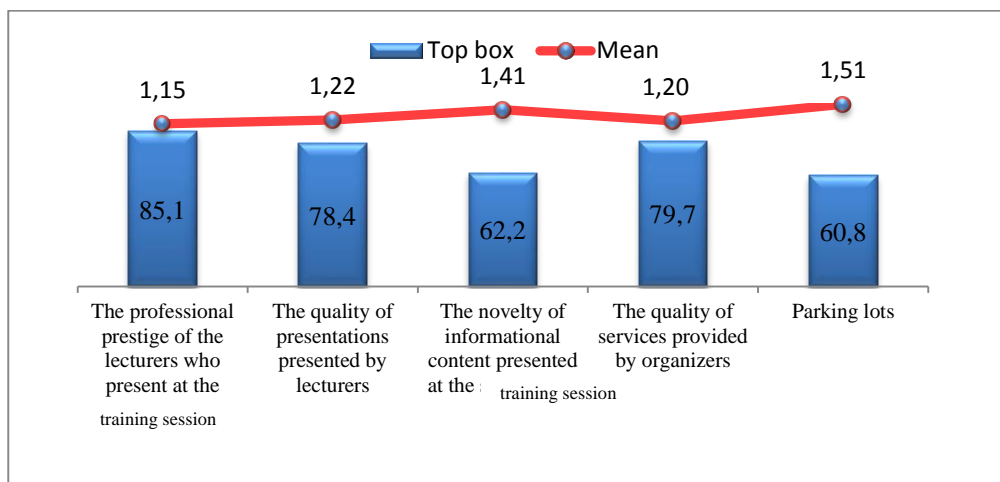
Figure no. 4 - Top Box for training medical session image

Regarding the distribution of respondents according to the residence of the medical unit where respondents practice can be observed that 83.8% of the respondents claimed that their practice as a doctor in a medical unit in the urban environment compared to16.2% who work in a medical unit from a rural environment.
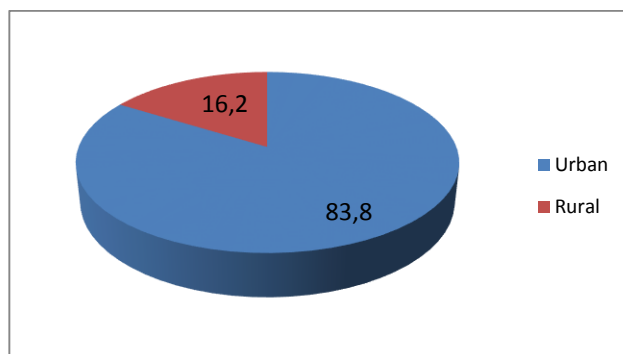

Figure no. 5 - Residence environment

Regarding the distribution of respondents by county of origin appears that 1 from 3 respondents came from Sibiu county, followed by those who reside in Mureş county (28.4%), and those living in Alba County. Other individuals who participated in the study from other counties that have not been mentioned above.
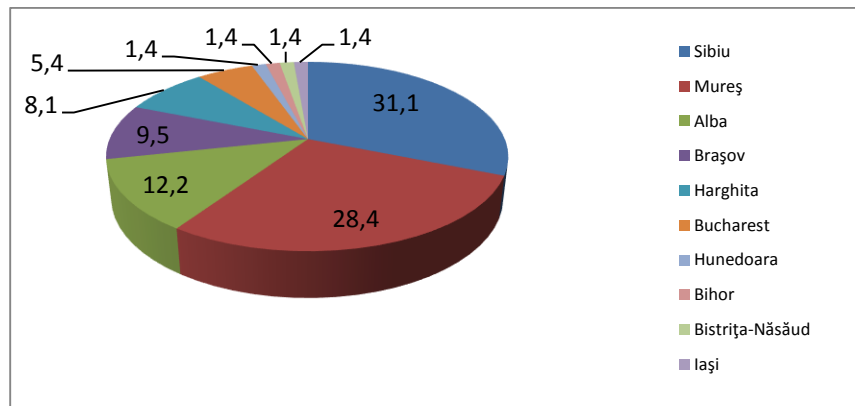
Figure no. 6 - Distribution of respondents by county of origin

Conceptual model

The proposed conceptual model, regarding user satisfaction of medical educational services is presented as follows:
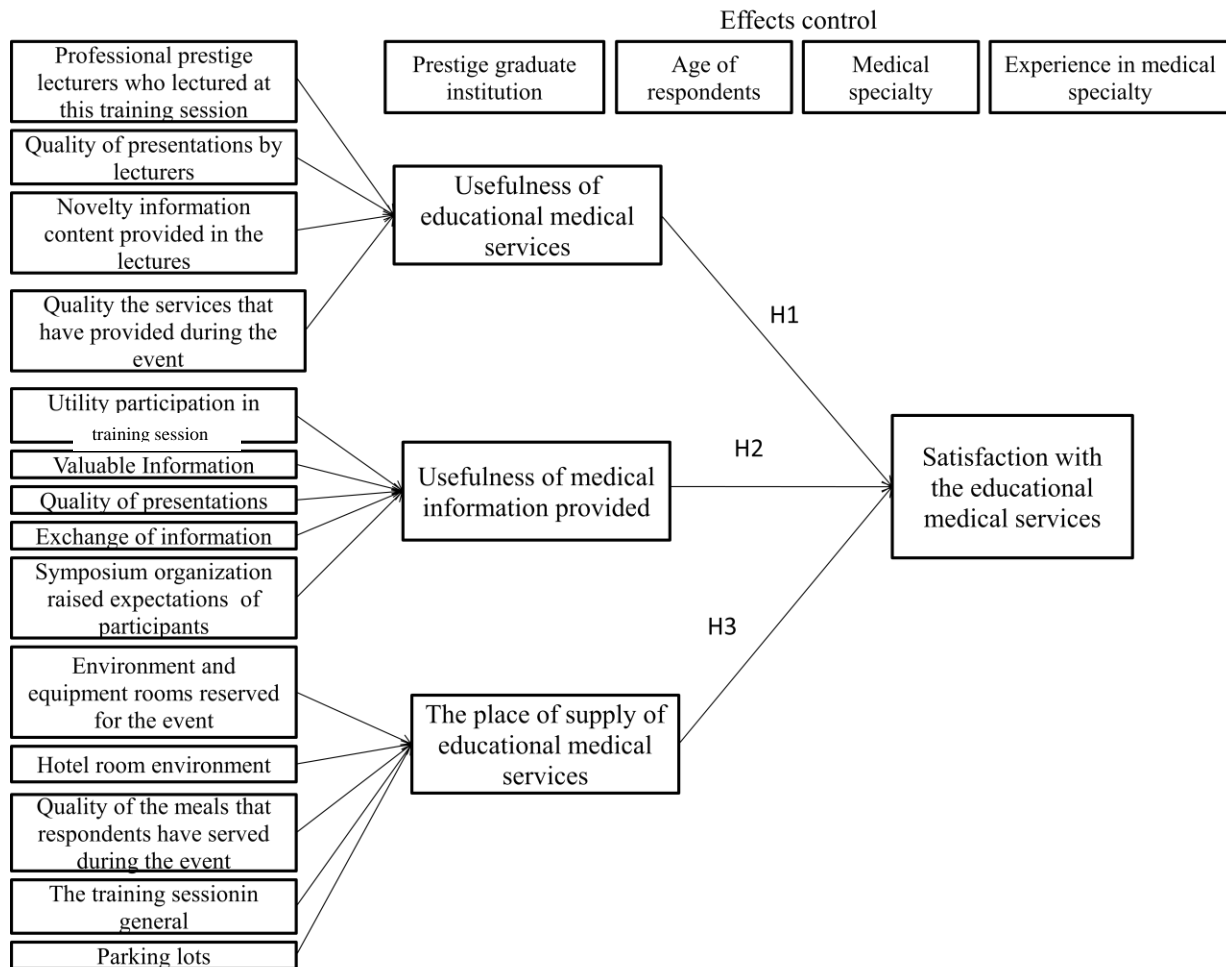

Figure no. 7 - Conceptual model regarding user satisfaction of medical educational services

The implementing of the model has gone from the idea that, educational customer satisfaction is influenced by a number of factors. Thus, following on a secondary data analysis, it was concluded that the most important influencing factors are: the quality of the educational services, the usefulness of the medical information received at the training session and it's developement place. Further detailed studies were determined components of these variables.

In the following analysis performed was noted that the factor with the greatest influence on the level of satisfaction experienced by the respondents it is the quality of medical educational services provided by the training session. Within its professional prestige and quality of lecturers presentation reflects the greatest influence. The second factor considered to have a relatively high influence on respondents' satisfaction it is the usefulness of the information received at the training session. From the level of this variable, the information obtained is considered to be most important to the target audience. From the analysis conducted it can be seen that the location has a directly and powerful influence on the individuals satisfaction, even if the result indicated a lower value than those obtained before.

Regarding to the indicators obtained in the model, the absolute indicator RMR (root mean squared residual) has obtained a value of 0.069,<0.1, which shows that we are dealing with a pretty good model, which has the ability to reproduce the evolution of the observed data. Another indicator in the model it is completely analyzed GFI (Goodness of Fit Index) which won worth 0,679. It is known that this index takes values between 0 and 1, values above 0.85 reports a very good model. Moreover, this indicator depends on the number of collected data and the complexity of the model. The small number of respondents in the research has determined a lower value in this indicator. AGFI is the GFI adjusted indices, this getting a value of 0.567. NFI(Normed Fit Index)(0.639), RFI (relative fit index) (0.58), CFI (comparative fit index) (0.709) and IFI (incremental fit index) (0.715) obtained values close to 0.85 which shows that the model developed isapplyable in the analyzed project. In the case ofPNFI indicators (parsimony adjusted NFI) and PCFI (parsimony adjusted CFI)the value was close to 0.60 which again, it suggests that the model is an acceptable one.
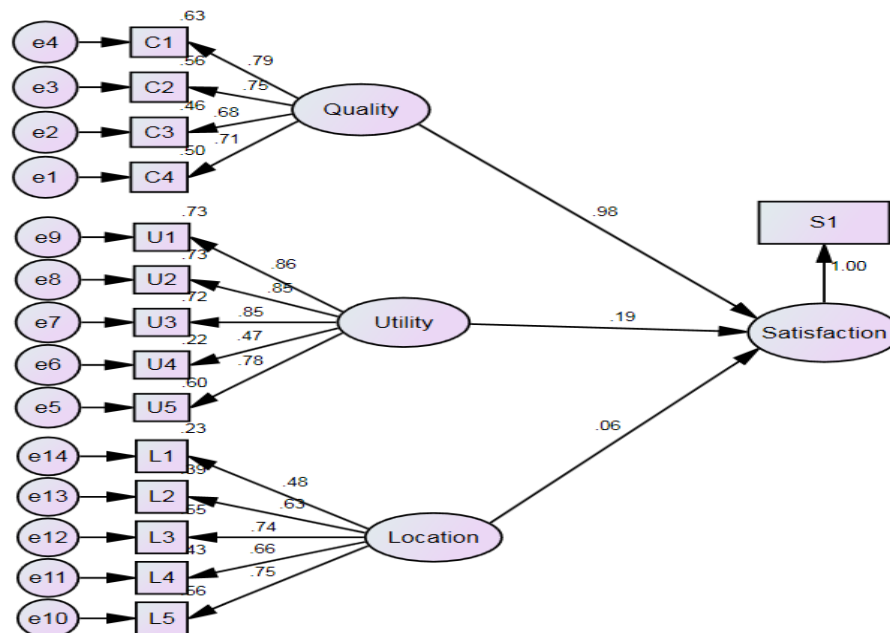

Figure no. 8 - Statistical modelation regarding the user satisfaction of medical educational services

Research limitations

In order to validate the previously stated further studies are needed specialists to support or contradict the results presented. In this survey it is possible that some of the variable were not taken under consideration. Therefore it would be beneficial the ongoing ofa series of research that takes into account other variables that are considered relevant to the study.

Regarding to the main limitations of the investigation, it should be noted that the questionnaire was distributed online, which didn't guarantee us the complete filling of the form by the target audience. Moreover than this, there may be people who identify their self with the research colectivity but could not access eSurveysPro questionnaire posted on the platform. For better results, a field research can be realize among the target audience to certify or to contradict the above results.

Another limit of this research relates to the limited number of respondents, which does not allow extrapolation of the results. Moreover, the low number of those interviewed did not allow the obtaining of relevant indicators in terms of the developed model. For this reason it would be beneficial ongoing surveys on a larger number of individuals who can give us valuable information on consumer satisfaction. Moreover a large number of respondents can outline a much clearer picture on the felt of satisfaction by the medical staff in the preofessional training sessions. The current research has taken under consideration only certain factors that has the ability to influence the level of satisfaction experienced by customers aftertrying the services. For this reason it would be beneficial to conduct further surveys with the aim of determining the degree of satisfaction experienced by as well as the medical staff and the factors that has the capacity to influence.

Conclusions

In a rapidly changing society to identify the level of satisfaction experienced by consumers it is the most important aspect to be analyzed.The following study has pointed out the degree of satisfaction experienced by consumers of educational medical and the main factors that has the abillity to influence it.

The quality of a service is a very important variable for marketing people,this is being taking into consideration whenever it is analyze the buying behavior of consumers. During the study it was observed that the usefulness of the obtain information from the training sessionhas a directly and powerful influence on the degree of satisfaction . This is a benefit for respondents both now and in the future,because the new informations obtained are those that generate progress and development of this field. It has been observed also to this variable, the importance of changing informations between the parties involved. Thus, finding a new opinion, discovering novelties or exchange of experience are just some of the major aspects when is assessed the satisfaction among respondents.The developed research also showed us the importance of location in the satisfaction analysis. It was noted that the training session venue has a directly and powerful influence on the degree of satisfaction experienced by participants. The physical location, facilities and the accommodation offered at the hotels are just some of the elements that have the ability to influence respondents' satisfaction.

In conclusion, it is highly important to analyze respondent satisfaction regarding medical educational services which offers the best picture regarding the way of preparation and development of future training medical sessions.

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