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KANO QUESTIONNAIRE AS A TOOL FOR EVALUATING QUALITATIVE CHARACTERISTICS OF EDUCATIONAL SERVICES: THE PERSPECTIVE OF LOYAL AND DISLOYAL STUDENTS

Abstract. The main aim of the research was to identify the attributes of educational service, which affect its quality from the point of view of students. Simultaneously, the authors' intention was to check whether there appear differences in evaluation of the importance of characteristics of this service between the examined groups of customers, that is the loyal and the disloyal students. The most numerously represented is the category of Must-be attributes. The difference was noted in the case of classification of eleven out of thirty-three examined attributes. As regards the organization of studies, distribution of classes and facilitations, and also requirements set to the didactic personnel, the results of the research point to a lack of differences in the evaluations. The most frequently found differences occur in the assessment of the college's infrastructure.

Keywords: Kano questionnaire, educational services, students

Introduction

The necessity for society to cope with changing conditions of the surrounding environment causes educational offers of schools of higher education to make a specific form of services in the market. They are often connected with the need or even obligation of acquiring (or consolidating) knowledge, skills and social competences. The answer of colleges providing education at different levels and of different profiles to the demand of customers-students at different age allows concluding that the majority of society can find an offer that is adjusted to their requirements and expectations (Zieliński & Lewandowski, 2012).

It needs to be taken into account that one of the basic factors in the success of a college of higher education, which allows it to gain competitive advantage in the market of educational services, is knowledge obtained in the course of marketing activity. The key question in perfecting the educational process is played by a suitable, up-to-date and flexible curriculum. Any mistakes made in this sphere will constitute a gap in the value provided to students. The features of the services, such as their non-material character, inseparability, impermanence or changeability, cause the didactic process to be of critical importance while evaluating the quality of educational services (Maciąg, 2011).

Designing and perfecting the quality of educational services is a difficult, yet indispensable, process, which should develop on a permanent basis. Identification of qualitative characteristics of an educational service and their hierarchization, as regards the significance, by the main interested party, i.e. students, makes the base for actions of the designing and perfecting nature. Here, Kano questionnaire proves a useful tool of students' assessment of the quality of an educational service and its application will be presented in this paper. Finding out about the needs and expectations held by the customer-student lies at the foundation of forming good relations with this group of customers, working out effective ways of providing the given service and shaping customer's loyalty.

The authors of the present paper analyze the literature of the subject in the scope of qualitative features of the educational service offered by colleges of higher education, the essence of customer-student's loyalty, as well as usability of Kano questionnaire, regarding evaluation of qualitative attributes of the product. The authors conducted both qualitative and quantitative research. The basic goal of the former was to identify qualitative attributes of educational services by students. At that stage of the research the method of "brainstorming" was used. At the same time the authors' intention was to check whether there exist differences in assessment of significance of qualitative features of an educational service between the examined groups of loyal and disloyal customers. In order to do so a Kano questionnaire was applied and also the test differences between two proportions (quantitative research).

The students taking part in the research were asked to evaluate the following three modules: 1. Organization of study courses, distribution of classes and facilitations; 2. Infrastructure; 3. Characteristics of lecturers.

1. Qualitative characteristics of an educational service provided by a college of higher education

In the literature of the subject, there have appeared a series of definitions of services, which contain their characteristic attributes. The most commonly encountered distinguishing feature is, primarily, the non-material nature of the service-providing activity (among others,

Payne, 1997: 20; Kotler & Keller, 2012: 358; Urbaniak, 2004: 26) and inseparability of the service, since rendering it and consumption of it are going on at the same time (among others, Kasiewicz, 2002: 134). In turn, Łańcucki, apart from the non-material nature of the service (a service is a process or an action) and its inseparability, differentiates also diversity of a service, its impermanence and the impossibility to produce goods “to keep in store”, as well as the impossibility to obtain proprietorship of the service (2001: 13). Then, Goranczewski and Szeliga-Kowalczyk differentiate a broader range of the attributes of a service, which complement one another (2015), that is:

- 1) Inseparability of provision and consumption of services – still, in the era of digitalization, provision of a broader and broader range of services with the omission of the attribute of inseparability is possible, e.g., an educational service can be realized with the use of e-learning tools, where the recorded didactic material can be reproduced by the student at any time.
- 2) Complementariness – e.g., inter-complementing of educational services is made possible by a suitably constructed schedule of didactic classes within one given major study course.
- 3) Complexity – a service can be rendered in its pure form, e.g., didactic classes in the form of a lecture, yet it can also be an extensive packet of activities, e.g., didactic classes in the given subject in the form of a lecture in contact with the lecturer, study sessions/laboratories and e-learning.
- 4) Diversity/flexibility – an educational service can be realized in a series of variants, covering individual customer’s requirements, e.g., studies of the second degree run along the “traditional path” or studies of the second degree which include also post-graduate studies in the curriculum (the student earns the Master’s degree and – simultaneously – obtains a certificate of post-diploma studies).
- 5) Seasonal nature of services – i.e., the educational service is provided by a college of higher education on the one-semester basis, covering the so-called academic year in the mode of extramural (weekend) studies and that of intramural (daily) one, i.e., from Monday through Friday.
- 6) Elusiveness/non-materialness of services – a feature which limits the possibility of “trying out” a service before making the purchase. In the case of an educational service this can be an educational service of a college of higher education, recommendations from graduates, etc., which offer a certain representation of what is going to follow.
- 7) Heterogeneity of services – a feature linked to a subjective feeling of the rendered service, the subjectivism containing in itself non-quantifiable criteria, e.g., the students’ reception of an academic lecture repeated by a professor for the n-th time can be completely different, so it can be the manner of delivering the lecture, depending on the lecturer’s mood.

- 8) Impermanence – an unused service capacity from one time period cannot be saved and carried forward for future use. This feature testifies to the transient and vanishing character of it. An item of the service that is not used is irretrievable, which leads to, among others, negative economic consequences in the form of losses that are incurred, gaps in student's resources of knowledge and skills, e.g., due to student's absence from classes.

Moreover, the authors list such characteristics as friendliness (courtesy, politeness, respect and consideration of the teaching and administrative personnel), reliability (the ability to perform the promised service accurately), as well as competence (the required skills and knowledge to perform the service professionalism) (Goranczewski & Szeliga-Kowalczyk, 2015).

Łańcucki underlines that “the quality of a service is nothing else but meeting customer's demands by entities running service-based activity. More precisely, the quality of a service can be defined as the degree to which the whole of inseparable properties of the service satisfies customer's requirements” (Łańcucki, 2001: 15). The quality, in the this author's opinion, can be considered in general and narrower meanings. In more general terms, it means a type, property, kind, value of the given object (phenomenon). In the more precise framework, it means “a feature or a set of features which differentiate the given object from others, or the whole of the characteristics of the given object which are significant with respect to its inner structure and also due to its relations, interaction and connections with the environment” (Łańcucki, 2001: 11). Thus, the ultimate quality of the service will depend on the service-provider and the service-receiver, and also on material conditions of rendering the service and its environment.

In the opinion of Maciąg, students expect to receive high-quality educational services which will enable them to gain knowledge, skills and social competences necessary to take up effective activity in a competitive environment (2011: 126). In turn, Botas defines the values expected by the student as: values resulting from acquiring new vocational qualifications, functional (usability of education from the point of view of work), creative (intellectual development, innovativeness), social (friendships, contacts, living in a group, trust in others) and emotional (finding a balance between the chosen major, interests and preferences) (2011: 2). A vital element of the assessment of the quality of an educational service is the cost of it. In the marketing-based framework, the added value of such a service is defined as a progressive, positive relation between benefits and the cost of studies in a broad treatment (Herman & Szablewski, 1999: 9). The level of student's satisfaction with the given educational service can be, among others, a measure of the evaluation.

The fact, which is often stressed in the literature of the subject, is that satisfaction is a complex assessment of the way in which the process of providing a service influences the feelings of the interested party/customer/student. Satisfaction, on the other hand, is nothing else but an emotional reaction to the perceived quality/value of the service (Stoma, 2004: 34).

Satisfaction is a measure closely related to the student who is making the evaluation. This measure makes it possible to assess satisfaction with the quality of educational services. The sense of satisfaction in students can be influenced by various factors (including the attributes mentioned above), and their significance is determined by its requirements. Customer's satisfaction with previous transactions (experienced services) constitutes the main determiner which is decisive as regards customer's loyalty (Gulid, 2011: 49-56; Hill & Alexander, 2003: 23-24; Helgesen & Nettet, 2007: 126-143, Thomas, 2011: 183-192) in the light of the literature of the subject.

2. The essence of customer's (student's) loyalty

Loyalty is a multifaceted concept which is difficult to be defined in an unambiguous way. In the colloquial understanding, it means devotion, attachment, involvement. Authors often emphasize the fact that loyalty stands for a bond and customer's attachment to a company, people working for it, or products which they offer (Fullerton, 2003: 333-344). The concept of customer's loyalty has been used in marketing since the very beginning of the existence of this discipline. It is in the literature dealing with marketing that one can distinguish the largest number of approaches to conceiving the term. Loyalty is frequently used interchangeably with such terms as: being accustomed, satisfaction, repeated purchase, preferences, involvement, retaining, faithfulness, passing good opinions, compulsion (Urban & Siemieniako, 2008: 9). Students' loyalty has attracted attention by researchers for a number of years (Ali, Zhou, Hussain, Kumar & Ari Ragavan, 2016: 70-94; Brown, Mazzarol, 2009: 81-95; Hennig-Thurau, Langer & Hansen, 2001: 331-344; Rojas-Mendez, Vasquez-Parraga, Kara & Cerda-Urrutia, 2009: 21-39; Sultan, Yin Wong, 2014: 487-521, Silva, Moraes, Makiya & Cesar, 2017: 415-439).

Building customers' loyalty is, according to Griffin, a process consisting of the following seven stages (Griffin, 1997: 29):

- Stage 1: somebody that can be the company's customer.
- Stage 2: somebody who would most probably make the first purchase, the so-called potential customer.
- Stage 3: a potential customer who, according to the data obtained by the company, will not make the first purchase.
- Stage 4: a customer who has made the first purchase.
- Stage 5: a customer who has made another purchase.
- Stage 6: a customer who makes purchases on a regular basis.
- Stage 7: a customer – the so-called advocate of the company – who does not only make purchases in it regularly, but also recommends doing so to others.

We can speak of retaining the customer when they continue to purchase the products for a period of time. Nevertheless, it needs taking into account the fact that not all products are bought often enough for the definition to be applicable to this category of buyers. This concerns in particular educational services offered by colleges of higher education. Therefore, it needs differentiating between products with a short repeat-purchase cycle and those with a long one. For instance, an educational service rendered by a college is characterized by a relatively long cycle, including: a three-year study course of the first degree (Bachelor), a two-year course of the second degree (Master), a two-year post-diploma course, where retaining the customer and their loyalty means a student's using the offer at least twice (they obtain the Master's degree). The repeat-purchase cycle can be acknowledged to be shorter if we accept the fee which is paid for each semester of studying to be the determiner of repetitiveness of purchase.

The essence of the phenomenon of loyalty is accentuated by a definition which treats it as a certain state of the customer's attitude towards the company, whose product they buy, which is characterized by high durability, the long-term nature and acceptance of conditions of purchase. Special emphasis should be laid on the fact that a loyal customer is a regular customer who does not yield to actions run by the competition and the formation of loyalty of whom is a goal of complex and intended actions in the market (Wilmańska-Sosnowska, 2008). A similar definition is put forward by Rudawska, who complements it with the element of loyal customer's caring for their company, through disseminating positive information on it (Rudawska, 2005: 15-16).

In view of the above-mentioned definitions – the essence of loyalty can be grasped in two categories, that is customers' attitudes and behaviors. Attitudes mean subjective feelings which bring about individual customer's attachment to products, services or brands. Behavior, on the other hand, manifests itself in processing purchases of determined products, augmenting the orders or giving recommendations to others (Urban & Siemieniako, 2008: 9; Skowron & Skowron, 2012: 67).

With reference to an educational service, a loyal customer is a student whose expectations have been satisfied by it (a study course of the first degree) and to whom it proved attractive enough (delighted them) to make them ready to take advantage of the offer of a Master's course and – further – that of post-diploma studies at the “well-tried college”, irrespective of offers from the competition (other colleges of higher education). Moreover, they are inclined to recommend the service which they have used to others. In turn, a disloyal customer is one whose expectations have not been met and/or one who has not experienced a delight. Such a customer is liable to being persuaded by others (acquaintances, advertisements from competing colleges), is ready for changes and to accept offers from other colleges, which – they feel – may turn out better for them. They are not inclined to again take advantage of an offer of the same provider or recommend the service. Hence, the company (college) “... which wants to make a success must carry out transactions of exchange in such a way as

to win the customer's heart and mind and a share in their pocket." The skill of winning loyal customers is of the key importance to enterprises and is the main factor in building a competitive advantage (Storbacka & Lehtinen, 2001: 36). One of the ways of acquiring loyal customers is students' participation in assessment of qualitative characteristics of educational services in order to select and group those which are, first – indispensable, second – made aware of and precise, and third – bring delight (decisive in winning loyalty to the greatest extent).

3. Research tool, implementation and results of the research

The research was conducted at two stages.

At the first stage, students (both loyal and disloyal) were asked to point to qualitative characteristics of an educational service. In order to do so, the method of "brainstorming" was applied in a group of 20 students of extramural courses of the second degree. This method allowed identifying the most significant features, in the students' opinions, which could be the determiner of the educational services quality. The results of the first stage of the research were used to prepare a Kano questionnaire.

The research conducted with the use of a Kano questionnaire is defined as dynamic, which results from the fact that features of the given service undergo relatively frequent changes (Goranczewski & Puciato, 2011: 92). Hence, identification of these attributes and their characterization done by the respondents should follow periodically. A Kano questionnaire allows determining individual features/requirements of customers and referring to the significance of the features in the process of perception of quality (Högström, Rosner & Gustafsson; Dominici & Palumbo, 2013: 215-236). All of the customer's requirements can be of the following character: expected, anticipated, unforeseen and over-anticipated (Karaszewski 2009: 260; Shahin & Nekuie, 2011: 176-188; Grudowski & Dembowski, 2012: 77-87). The expected characteristics, as the very name itself implies, are ones that the customer expects to characterize the given product. The anticipated features are such that the customer does not realize, although when they do appear – they are of paramount importance to the customer's subjective feeling. Expectations which are unforeseen are characterized by the fact that when they are accomplished, the customer does not feel satisfaction; however, when they are not met – the customer will not be pleased. The over-anticipated features are characterized by the fact that not meeting them does not evoke customer's dissatisfaction, whereas meeting them causes a growth in satisfaction (Obora, 2005: 52-53). In the majority of cases, the quality which is perceived does not equal that which is received. For this reason Kano carried out an analysis of correlation between customer's satisfaction and offered quality. He classified qualitative characteristics of a product into the following groups:

- Obligatory characteristics/indirectly expected “M” (Must be) – are those indispensable to obtain customer’s satisfaction; nevertheless, the very appearance of them will not influence a rise in the level of customer’s satisfaction, whereas lacking in these features will bring about a drop in satisfaction;
- One-dimensional/directly expected “O” (One-dimensional) – are features which are made aware of and precise, the lack of which results in lowering the customer’s satisfaction, whereas their presence brings about a rise in satisfaction;
- Attracting features/lures “A” (Attractive) – are features which are attractive enough for the customer to whom the offer is addressed, to make them be interested in it more than in competitors’ offers; it causes a great increase in satisfaction, frequently determines loyalty; still, a lack of this type of characteristics is not of considerable significance to the customer;
- Indifferent features “I” (Indifferent) – are ones of no significance to the customer, the so-called errors; meeting them does not cause any rise in satisfaction, and a lack of them does not result in a decrease in satisfaction;
- Dubious features “Q” (Questionable) – are ones which are hardly identifiable at the given time; it is not obvious at which moment they will become relevant to the customer and when their presence can influence an increase in their satisfaction;
- Reverse features “R” (Reverse) – are ones, whose appearance causes the customer’s dissatisfaction, while the lack of them leads to satisfaction (Kano, 1984: 39-48).

Kano constructed the questionnaire in order to determine individual characteristics which constitute the given product and to classify them into one of the groups listed above. The respondent filling in the questionnaire is requested to answer the questions in two dimensions: positive – when the defined feature of the product appears and plays its role in the right way, and negative – when the defined feature does not appear or it does but to an unsatisfactory extent (Wolniak & Skotnicka, 2008:143-144). Each of the features is determined by a combination of two answers, which can take five values. As a result, it is possible to obtain 25 variations, and it is possible to detect the type of feature in a concrete situation (Wolniak & Skotnicka, 2008: 144).

The categories of characteristics, which are listed above, should be included in the product in appropriate proportions. They can serve to design a new product or to improve the already existing one. It is very important that the product should include all the obligatory features indicated by customers; there is no need, though, for the level of these attributes to be the highest possible. In this case, it suffices if they are just present in the product. Regarding the attributes which are made aware of, the level of their quality must be the same or higher than that of products offered by the competition. Designing/perfecting these features in the context of their quality must be very well-thought-over and executed in a manner that is most careful. The attractive attributes need to reflect the highest possible quality. While designing or

improving the product it is necessary to select only a few attractive features and secure that they are of the highest quality. The proper choice of “lures” allows creating a unique product and – what results from this – gaining competitive advantage in the market (Kano, 1984).

The authors of the present article, taking account of the above recommendations relating to the Kano method, went on to realize the second stage of the research, at which the respondents – students – filled in the Kano questionnaire with respect to hierarchization of the qualitative features of the educational service with the aim to classify individual attributes into a suitable category. The selection of the sample was of the purposeful, non-probabilistic character. The survey-based research was conducted in November 2016, covering 218 (76%) weekend students of the first year of the second degree study courses at WSB University, Department of Economics in Opole. They were asked to evaluate the issues pertaining to organization of studies, distribution of classes and facilitations, infrastructure, as well as lecturers’ characteristics.

4. Results and discussion

The analysis of the results of categorization of the qualitative attributes of an educational service leads to an initial conclusion that in the case of the majority of features the assessments of significance are similar irrespective of the type of customer (loyal/disloyal).

At the next stage of the analysis, the test for the difference between two population proportions was used with the aim to verify the hypothesis saying that the two identified populations (those of loyal and disloyal customers) show two different proportions of indications of the given category.

$$H_0: \pi_1 = \pi_2.$$

$$H_1: \pi_1 \neq \pi_2.$$

The results of the relevant calculations are presented in Tables 1-3. As regards the organization of study courses, distribution of classes and facilitations, the following were found among the must-be features (Category “M”) as having been unanimously indicated by both groups of students: information about possible changes in the schedule, acceptable number of students in group study sessions/lectures/laboratory classes, convenient contact with individual departments and workers of the college and also supporting students in their going abroad to study/do practice or training (Table 1). The following were found among the attractive requirements (Category “A”): offering subjects to choose, offering trainings and workshops free of charge, support in looking for jobs/internships/practice placements, as well as availability of literature of the subject in the college library.

Table 1

Evaluation of organization of study courses, distribution of classes and facilitations – structure indexes (%) for the number of indications of the given category

Feature	A		M		O		R		Q		I	
	D	L	D	L	D	L	D	L	D	L	D	L
Student's rights and duties are clearly defined	3.9	3.4	47.1	44.0	39.2	46.6	0.0	0.0	1.0	0.0	8.8	6.0
	p = 0.844		p = 0.647		p = 0.271		-		-		p = 0.428	
Classes are planned optimally during each weekend's schedule (e.g., no 'gaps' in the schedule)	9.8	13.8	26.5	28.4	53.9	48.3	0.0	0.0	0.0	0.0	9.8	9.5
	p = 0.363		p = 0.754		p = 0.409		-		-		p = 0.940	
Organization of classes encourages students' active participation	24.5	21.6	19.6	21.6	15.7	27.6	1.0	1.7	0.0	0.0	39.2	27.6
	p = 0.611		p = 0.716		p = 0.034		p = 0.657		-		p = 0.069	
College facilitates individual organization of study courses/individual course of studies	29.4	9.5	23.5	24.1	16.7	31.0	0.0	0.0	0.0	0.0	30.4	35.3
	p = 0.000***		p = 0.917		p = 0.014**		-		-		p = 0.443	
College informs about changes in the schedule	2.9	2.6	61.8	60.3	31.4	30.2	0.0	0.0	0.0	0.0	3.9	6.9
	p = 0.892		p = 0.821		p = 0.848		-		-		p = 0.332	
Number of students in groups is reasonable (e.g., with reference to the size of rooms, number of computer stations)	10.8	8.6	44.1	45.7	26.5	27.6	0.0	0.0	0.0	0.0	18.6	18.1
	p = 0.583		p = 0.813		p = 0.855		-		-		p = 0.924	
Contacts with individual departments and workers of the college are conveniently made (days, office hours; possibility of contacts via telephone or e-mail)	7.8	7.8	43.1	46.6	38.2	37.9	0.0	0.0	0.0	0.0	10.8	7.8
	p = 1.000		p = 0.604		p = 0.964		-		-		p = 0.445	
College offers subjects to choose	43.1	37.9	8.8	15.5	24.5	28.4	0.0	0.0	0.0	0.0	23.5	18.1
	p = 0.435		p = 0.134		p = 0.515		-		-		p = 0.326	
College offers trainings, workshops additionally paid for	23.5	23.3	9.8	14.7	8.8	10.3	5.9	5.2	0.0	0.0	52.0	46.6
	p = 0.972		p = 0.274		p = 0.708		p = 0.8215		-		p = 0.426	
College offers free trainings, workshops	33.3	25.9	16.7	16.4	22.5	25.0	0.0	0.0	0.0	0.0	27.5	32.8
	p = 0.231		p = 0.953		p = 0.666		-		-		p = 0.396	
Speed, range and transparency of information passed by administration workers are suitable	9.8	7.8	50.0	37.9	28.4	42.2	0.0	0.0	0.0	0.0	11.8	12.1
	p = 0.602		p = 0.072		p = 0.034		-		-		p = 0.946	
College supports students in searching for job/internship/practice	37.3	33.6	13.7	14.7	18.6	22.4	0.0	0.0	0.0	0.0	30.4	29.3
	p = 0.569		p = 0.833		p = 0.489		-		-		p = 0.859	
Books/magazines (literature of the subject) are available in the college library	25.5	28.4	20.6	22.4	9.8	14.7	0.0	0.0	0.0	0.9	44.1	33.6
	p = 0.631		p = 0.747		p = 0.274		-		-		p = 0.112	
College supports students in going abroad to study/to do internship/have practice	24.5	15.5	25.5	36.2	21.6	25.9	0.0	0.0	0.0	0.0	28.4	22.4
	p = 0.096*		p = 0.089*		p = 0.458		-		-		p = 0.309	

Asterisks indicate statistical significance with *: $p < 0.10$, **: $p < 0.05$, ***: $p < 0.01$.

D – disloyal customer; L – loyal customer.

Source: Own calculations on the basis of results of survey research.

The results presented in Table 1 point to a lack of differences in the evaluation of the organization of studies, distribution of classes and facilitations between loyal and disloyal customers (Table 1, $p > 0.10$). Statistically relevant differences between two proportions occurred only in the case of the assessment of the possibility of obtaining individual

organization of studies/individual course of studies, as well as supporting students in their going abroad to take up studies, do internship or have practice.

Table 2

Assessment of infrastructure – indexes of structure for the number of indications of the given category

Feature	A		M		O		R		Q		I	
	D	L	D	L	D	L	D	L	D	L	D	L
Classes are run in one building	19.6	10.3	26.5	37.9	34.3	39.7	0.0	0.0	0.0	0.0	19.6	12.1
	p = 0.053*		p = 0.073*		p = 0.410		-		-		p = 0.128	
College secures sufficient and free parking space for their students	19.6	7.8	40.2	50.9	28.4	27.6	0.0	0.0	0.0	0.0	11.8	13.8
	p = 0.011*		p = 0.114		p = 0.896		-		-		p = 0.660	
College provides air-conditioning in didactic rooms	26.5	18.1	23.5	36.2	28.4	31.9	0.0	0.0	0.0	0.0	21.6	13.8
	p = 0.096*		p = 0.042**		p = 0.575						p = 0.130	
College secures cleanliness of the building (classrooms, corridors, toilets)	7.8	5.2	50.0	56.9	32.4	30.2	0.0	0.0	0.0	0.0	9.8	7.8
	p = 0.434		p = 0.308		p = 0.727		-		-		p = 0.602	
College secures access to places of rest during breaks between classes	26.5	17.2	23.5	32.8	27.5	25.9	0.0	0.0	0.0	0.0	22.5	24.1
	p = 0.096*		p = 0.129		p = 0.790		-		-		p = 0.781	
College provides a sufficient number of computer stations/laptops	19.6	13.8	25.5	39.7	20.6	25.9	0.0	0.0	0.0	0.0	34.3	20.7
	p = 0.250		p = 0.026**		p = 0.357		-		-		p = 0.024**	
College provides access to the Internet	27.5	18.1	27.5	37.9	27.5	27.6	0.0	0.0	0.0	0.0	17.6	16.4
	p = 0.097*		p = 0.103		p = 0.987		-		-		p = 0.814	
There is a shop/buffet, bar/vending machine selling drinks and refreshments available on the premises of the college	27.5	13.8	16.7	32.8	33.3	30.2	0.0	0.0	0.0	0.0	22.5	23.3
	p = 0.012**		p = 0.006***		p = 0.623		-		-		p = 0.889	
There is a copying shop on the premises of the college	22.5	12.1	28.4	36.2	29.4	33.6	1.0	0.0	0.0	0.0	18.6	18.1
	p = 0.041**		p = 0.220		p = 0.374		-		-		p = 0.924	
There is a coatroom on the premises of the college	28.4	16.4	14.7	23.3	31.4	35.3	0.0	0.0	1.0	2.6	24.5	22.4
	p = 0.033**		p = 0.108		p = 0.543				p = 0.382		p = 0.715	

Asterisks indicate statistical significance with *: $p < 0.10$, **: $p < 0.05$, ***: $p < 0.01$.

D – disloyal customer; L – loyal customer.

Source: Own calculations on the basis of results of survey research.

Among the obligatory attributes (Category “M”), unanimously indicated by both loyal and disloyal students, the following were found: providing sufficient number of free parking spaces for students, securing cleanliness in the building, accessibility to places of rest during breaks between classes, providing sufficient number of computer stations and access to the Internet. In the case of assessment of infrastructure, significant statistical differences occurred between the examined groups much more often than in the case of evaluation of study courses, distribution of classes and facilitations (Table 2). Statistically significant differences between the two proportions occurred in the case of assessment of classes run in one building, securing a suitable number of free parking spaces for students, air-conditioned classrooms, providing a suitable number of computer stations, access to the Internet, a shop/buffet/bar/vending machine, as well as an access to a copying shop and a coatroom.

Table 3

Teaching, characteristics of lecturers – indexes of structure for the number of indications of the given category

Feature	A		M		O		R		Q		I	
	D	L	D	L	D	L	D	L	D	L	D	L
Lecturer clearly defines student's duties	2.9	8.6	45.1	44.0	37.3	32.8	0.0	0.0	0.0	0.0	14.7	14.7
	p = 0.075**		p = 0.871		p = 0.487		-		-		p = 1.000	
Lecturer displays good theoretical knowledge	2.9	3.4	57.8	49.1	28.4	37.9	0.0	0.0	0.0	0.0	10.8	9.5
	p = 0.833		p = 0.199		p = 0.138		-		-		p = 0.751	
Lecturer presents good examples from practice	8.8	12.1	42.2	38.8	40.2	37.1	0.0	0.0	0.0	0.0	8.8	12.1
	p = 0.429		p = 0.610		p = 0.639		-		-		p = 0.429	
Lecturer realizes material which prepares for coping with problems in everyday life	15.7	16.4	32.4	31.9	42.2	35.3	0.0	0.0	0.0	0.0	9.8	16.4
	p = 0.888		p = 0.937		p = 0.296		-		-		p = 0.152	
Lecturer answers questions in a professional way	8.8	6.0	43.1	45.7	39.2	36.2	0.0	0.0	0.0	0.0	8.8	12.1
	p = 0.428		p = 0.700		p z= 0.648		-		-		p = 0.429	
Lecturer is communicative	6.9	9.5	38.2	44.8	44.1	35.3	0.0	0.0	0.0	0.0	10.8	10.3
	p = 0.487		p = 0.324		p = 0.185		-		-		p = 0.905	
Lecturer displays a friendly approach to the student	5.9	6.9	38.2	46.6	49.0	41.4	0.0	0.0	0.0	0.0	6.9	5.2
	p = 0.764		p = 0.211		p = 0.260		-		-		p = 0.598	
Lecturer allows students to discuss problems during classes	14.7	21.6	21.6	25.0	37.3	28.4	1.0	0.9	1.0	1.7	24.5	22.4
	p = 0.189		p = 0.554		p = 0.162		p = 0.9394		p = 0.658		p = 0.715	
Lecturer is available to the student outside classes (e.g., office hours, via e-mail)	14.7	20.7	28.4	21.6	49.0	44.8	0.0	0.9	0.0	0.0	7.8	12.1
	p = 0.249		p = 0.246		p = 0.535		-		-		p = 0.293	

Asterisks indicate statistical significance with *: $p < 0.10$, **: $p < 0.05$, ***: $p < 0.01$.

D – disloyal customer; L – loyal customer.

Source: Own calculations on the basis of results of survey research.

The results (Table 3) point to the lack of differences between the loyal and disloyal students, as regards their assessments of features related to the characteristics of lecturers. The following were found among the requirements connected with this group of attributes which are perceived by students as indispensable to satisfy basic needs (Category “M”): lecturer’s clear defining student’s duties, good knowledge of the theory of the subject, ability to present good examples from the practice of the subject, the skill of “professional” responding to questions, communicativeness and a friendly attitude toward the student. Statistically significant differences between two proportions appeared exclusively in the case of one evaluation: 2.9% of the disloyal students and as many as 8.6% of the loyal ones place “clear defining of student’s duties” among the attractive requirements (Category “A”), the satisfying of which causes a considerable rise in students’ satisfaction.

5. Conclusions

Recapitulating on the conducted research, it needs concluding that loyal and disloyal customers both agreed in selecting qualitative attributes of an educational service provided by a college of higher education. Then, the above-mentioned groups of respondents coincidentally classified the qualitative features in the scope of organization of studies, distribution of classes and facilitations into appropriate categories of features, in compliance with the Kano method (attractive, compulsory, one-dimensional, etc.), despite the fact that the so-called disloyal students can make comparison with another college of higher education, and loyal students can not avail themselves of such a possibility (convergent perception of the features significance). Only in the case of assessing the chance of having an individual organization of study course/individual study course granted do there exist significant statistical differences between the two groups of students: disloyal students, in their majority, qualify this attribute as attractive, in contrast to loyal ones, who, in their decisive majority, classify it as one-dimensional (its level ought to be equal or higher than that of the attribute offered by the competition). Similarly, in the case of supporting students in going abroad to study/do internship/practice, disloyal students assess this attribute as attractive (a “lure”) in comparison with the loyal ones, for whom this is an obligatory feature (it is possible to save money on it, but it should be present in the provided service).

When it comes to the question of infrastructure, the implications with reference to designing/improving the infrastructure are as follows: students who have used the infrastructure of more than one college believe that effective “lures” are securing it by the college that classes are run in one building and that an adequate number of free parking spaces for the students are provided. The college should also secure air-conditioned classrooms, access to places of rest during breaks between classes, access to the Internet, a shop/buffet/vending machine with drinks and refreshments, a copying shop and a coatroom. In turn, the students who exclusively know the infrastructure of the Department of Economics in Opole, in comparison with their disloyal counterparts, more often point to the following features as obligatory ones: classes should be held in one building and it is indispensable that the college should secure air-conditioned classrooms. Apart from that, it must provide a sufficient number of computer stations, as well as a shop/buffet/bar/vending machine selling drinks and refreshments. A lack of these attributes will result in a drop in the level of satisfaction.

As regards the module “characteristics of lecturers”, loyal students far more often (in comparison with their disloyal counterparts) acknowledge the attribute of lecturer’s clear defining of student’s duties to be an attractive feature which considerably raises the quality of the educational service provided by the college of higher education.

The features of a given service undergo relatively frequent changes, since there follows a continuous rise in customers' expectations; in a certain period of time, attributes of a service, which were classified as attractive, become ones that are one-dimensional (made aware of) with their progressing introduction into offers of competitors. Similarly, one-dimensional features, after a longer time of their functioning, become obligatory, as regards the customer's expectations. In the light of the above considerations, it must be concluded that colleges of higher education should take into account their customers-students' suggestions relating to the significance of the qualitative attributes of their educational services in the process of designing and perfecting them.

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