DO THEY HAVE REALLY NO OPINION? – THE EVALUATION OF STUDENT PARTNERSHIP USING KANO-MODEL

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Abstract: *To improve the quality of higher education, it is essential to understand students' expectations. In this research, we will analyse the specific requirements for the elements of the student partnership using the Kano model. Our questionnaire (N=320) was filled in by students of the Faculty of Economics at the University of Debrecen. Using cluster analysis we distinguished 3 groups of students, with different expectations. The most important features of the education are clear rules and requirements, fair assessment and mutual respect as the lack of these cause dissatisfaction in those 2 clusters that cover 91% of the students. For one cluster, covers 43% of students, helpful lecturer also have the same effect. This latter cluster consists of mostly elder and part-time students, who are enthusiastic and evaluate, if they are treated as colleagues, or involve in common research, problem solving, have bidirectional communication with lecturers and can give feedback on education. However one-fifth of the students doesn't like to participate in lectures, and 15% hate groupwork. Finally we found that there is a cluster of students, which give 9% of sample, who are totally uninterested, as they have no needs, only want to get a certificate.*

Keywords: *Kano-model; tertiary education; partnership with students*

JEL Classification: *I23; J24*

1. Partnership with students

The involvement of students as partners in higher education is reflected in a wide range of literature, much of which cites its role in the acquisition and deepening of knowledge as a major benefit and positive factor. Cook-Sather et al. (2014) argue that involving students as partners in the learning and teaching process improves the quality and effectiveness of teaching and increases student engagement and motivation. In their opinion, it can be beneficial not only for the educational process

but also for the student experience and social responsibility. Healey and Healey (2019) go further, arguing that the active involvement of university students as partners in the teaching and learning process can not only improve students' motivation but also contribute to the development of their creative and critical thinking, increase their satisfaction with the quality of education and support their long-term career development. Healey et al. (2014), argue that partnership increases interest in learning, improves the quality of education, strengthens student-teacher relationships, and develops students' critical thinking and problem-solving skills. Bovill (2014), who argues that in addition to critical thinking, the method develops student reflection and promotes mutual communication between the two parties, makes a similar finding. The use of this approach or method can improve their learning outcomes in the short term and support their career development and active participation in life in the long term (Cook-Sather et al., 2017). In addition to the above, involving students in the educational process can create new opportunities for communication between teachers and students and, thus also can improve the quality of education. The learning experience becomes more personalized, instruction becomes more responsive and dynamic, and the role of students in the educational process becomes more validated (Werder and Otis, 2009). For students, partnership forms of collaboration that include power-sharing between students and teachers and the development of sales skills can have a positive impact. In students' experience, such partnerships help to increase their self-confidence and improve student-faculty relationships (Mihans et al., 2008). According to Dvorakova and Matthews (2016), the development of partnerships between students and lecturers also facilitate students' successful integration into higher education institutions. They also point out that the beneficial effects of partnerships can extend to improving the lives of students, teachers, and institution as a whole. In doing so, they can contribute to the democratization of higher education institutions and more active participation of students in the educational process (Werder and Otis, 2009).
However, in contrast to the above, it is important to stress that students and teachers have different understandings of partnerships in higher education. Clarifying roles in the student-teacher partnership is key to the successful implementation of the project. These roles can help to establish the structures and processes necessary for student-staff partnerships in educational institutions. (Bovill, 2017). In addition, engaging students as partners can also present significant challenges for educators, who need to learn how to work with students and ensure that collaboration is beneficial for both students and educators (Cook-Sather et al., 2014). In addition, Mercer-Mapstone et al. (2017) point out in their article that such partnerships without adequate support can have serious negative effects, such as causing

excessive workload for lecturers or even contributing to increased student stress. Therefore, educators and institutions must provide adequate support for such partnerships and pay attention to the benefits created for both students and educators. Educators and institutions must be open to engaging students as partners and provide the appropriate support and structure for collaboration (Healey and Healey, 2019). In addition, it is of course not negligible that educators are equipped to develop and maintain collaborative partnerships and support students to become active participants in the educational process. Educators and institutions also need to be flexible and remain open to new perspectives and changes (Cook-Sather et al., 2017). Direct partnerships can face additional challenges and difficulties, such as inequalities between students and teachers, time constraints, communication difficulties, and a lack of motivation to participate (Dvorakova and Matthews, 2016).

2. Kano-model

In our research, we analysed students' expectations using the Kano model methodology (Kano, 1984). The model is well known in the field of quality management and has recently become an increasingly popular method for categorising customer expectations even in the case of higher education (see McDowell, 2016; Madzík etal., 2019). Using the model we can distinguish must-be, one-dimensional, attractive, indifferent and reverse quality attributes. The model has updated versions but we use the original evaluation (see Yang, 2005; Lee etal., 2011; Shahrestani etal., 2020;).

Must-be expectations are those which, if not included in the product, will cause customer dissatisfaction, while their presence or high level will only result in dissatisfaction being eliminated. Performance characteristics' presenence or high level cause satisfaction while their low level or missing cause dissatisfaction. Reverse characteristics have the opposite effect, i.e. their presence causes dissatisfaction. Attractive features are not expected by the customer, so their absence does not increase their dissatisfaction, but their presence surprises them and makes them happy. Indifferent features do not affect feelings. Questionable attributes are attributes that are controversial or illogical, for example, because their presence and absence cause satisfaction too. They are not usually displayed in the analysis. The relationship between the appearance of a characteristic and satisfaction is illustrated in Figure 1 below.

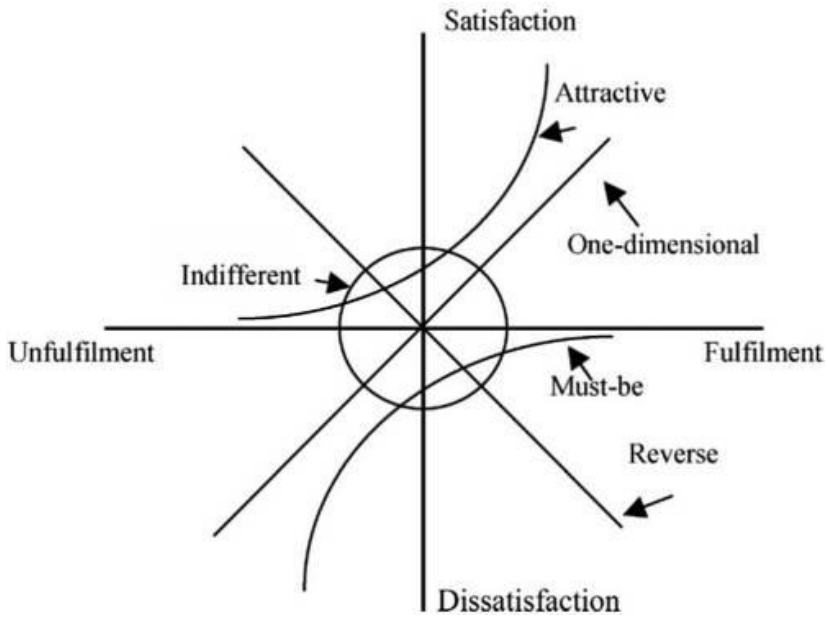

Figure 1. Kano-model
Source: Shahin et al., 2013

In the questionnaire, the respondents have to rate two statements. The so-called, functional question asks how they would feel if the attribute is included or highly present in the product. The dysfunctional question refers to how they would feel if the feature was not included or only at a low level. They are asked to rate this on a scale of 1 to 5, where 1 - I like it, and would be happy with it, 2 - I like it, and would expect it, 3 - does not matter, 4 – I do not like it but could accept it, 5 – I do not like it and could not accept it. Based on the responses received, a rating table is used to determine the dimension of the attribute, see Table 1 below.

Table 1. The evaluation table of Kano-model

Requirements		Dysfunction				
		1.	2.	3.	4.	5.
Function	1.	Q	A	A	A	O
	2.	R	I	I	I	M
	3.	R	I	I	I	M
	4.	R	I	I	I	M
	5.	R	R	R	R	Q

Notes: Q – Questionable, A – Attractive, O – One-dimensional, M – must be features, I – Indifferent, R – Reverse quality attributes
Source: Shahin et al., 2013

3. Data and Methodology

In our research we use questionnaire to measure students' requirements against the elements of partnership with lecturers. We examined 24 aspects based on the work of Tóth – Bedzsula (2021). These were:

- There are informal activities with lecturers outside the classroom.
- Lecturers are personally available for students (outside the classroom as well).
- The lecturer is helpful with student's problems.
- The lecturer maintains a direct and attentive relationship with students.
- Students can trustingly contact their instructors with their problems.
- Lecturers and students are treated equally (e.g. when keeping the deadlines).
- The lecturer articulates clear rules and requirements.
- Fair student performance assessment.
- The lecturer prefer group work.
- The lecturer adapts the curriculum to students' career goals.
- The lecturer consider students as colleagues.
- Lecturers ask for feedback on their work.
- The lecturer consider students' opinion.
- Students pay attention and are active during lectures.
- Students give feedback on the education and the lecturer including positive ones as well.
- Students are curious and open to the curriculum.
- The students constructively assist the instructor in solving the problems that arise.
- Prompt bidirectional communication
- Mutual respect and politeness
- The lecturer works and does research with students
- The lecturer mentors and supervises the talented and interested students
- The lecturer supports the manifestation of students individually
- The lecturer recognizes the student performance
- The lecturer inspire students and motivate them to participate in common problem solving

The sample was collected in the spring semester of 2023 using google forms. Students were asked to complete the questionnaire at the beginning of class. We tried to distribute the questionnaire to all year groups in all degree courses, both full-

time and part-time. Sample size were N=320 cases. After data collection we use K-means cluster to identify groups of students with homogenous requirements. First we use Hierarchical Cluster Analysis with Ward method to identify the proper number of clusters. On the base of this we determined 4 cluster is proper. But as the 4th class contains only 4 responses, thus we excluded this from further analysis. Otherwise, this small number of class is remained in the case of 3 and 5 clusters as well. Clusters' attributes is represented by the Tables 2-5 below.

Table 2. The clusters' distribution according to gender

			1	2	3	Total
Gender	Man	Count	57	60	14	131
		%	37,5%	44,1%	50,0%	41,5%
	Woman	Count	95	76	14	185
		%	62,5%	55,9%	50,0%	58,5%
Total		Count	152	136	28	316
		%	100,0%	100,0%	100,0%	100,0%

Note: χ^2 test significance value: 0,33
Source: own analysis

Table 3. The clusters' distribution according to age

			1	2	3	Total
Age	18 - 23 yo	Count	137	114	27	278
		%	90,1%	83,8%	96,4%	88,0%
	24 - 30 yo	Count	12	11	1	24
		%	7,9%	8,1%	3,6%	7,6%
	31 - 49 yo	Count	3	11	0	14
		%	2,0%	8,1%	0,0%	4,4%
Total		Count	152	136	28	316
		%	100,0%	100,0%	100,0%	100,0%

Note: χ^2 test significance value: 0,07
Source: own analysis

Table 4. The clusters' distribution according to category of students

		1	2	3	Total
Part time	Count	16	25	0	41
	%	10,5%	18,4%	0,0%	13,0%
Full time	Count	136	111	28	275
	%	89,5%	81,6%	100,0%	87,0%
Total	Count	152	136	28	316
	%	100,0%	100,0%	100,0%	100,0%

Note: χ^2 test significance value: 0,014
Source: own analysis

Table 5. The clusters' distribution according to level of education

			1	2	3	Total
level of graduation	Fosz*	Count	43	25	15	83
		%	28,3%	18,4%	53,6%	26,3%
	Bsc	Count	101	107	13	221
		%	66,4%	78,7%	46,4%	69,9%
	Msc	Count	8	4	0	12
		%	5,3%	2,9%	0,0%	3,8%
Total		Count	152	136	28	316
		%	100,0%	100,0%	100,0%	100,0%

Note: χ^2 test significance value: 0,02,
*Fosz – higher vocational education
Source: own analysis

The first cluster composed by students with a very mixed level of education, but master level has the highest % here, and an average age of 21 years old mostly full-time students. The second cluster is typically made up of bachelor students and older part-time students. The third cluster consists only of young students with an average age of 20 years, who learn typically at lower level (Fosz) education.

3. Results

The results of our analysis is represented by the Table 6 below. We can conclude that the difference between clusters is given by the amount of indifference categories. The members of the third cluster (with the youngest and lowest level of education) are totally uninterested, as all elements fall into Indifference Kano-category We can call them Disinterested students, they give 8,9% of the whole sample. The first cluster has more interest as they have 13 indifferent, but 8 attractive and 3 one-dimensional categories. Here should be note, that there are no must be elements, that represent basic needs, instead one dimensional features are those, that show important attributes, as their lack result in dissatisfaction. These are clear rules and requirements (7), fair assessment (8), and mutual respect and politeness (19). Others like helpful lecturer (3), direct and attentive relationship (4), contact with instructor (5), considering students' opinion (13), interest of courses (17), mentoring (21), performance recognition (23) and inspiring (24) are all attractive elements, and their lack doesn't matter, but their presence cause satisfaction. We can call them as group of interested students and according to the demographic distribution, master students are mostly such students.

The second cluster consist of those students, who have the most interest, since almost all attributes are attractive one. They evaluated only 2 categories as

indifferent, like groupwork (9) and active participation in lectures (14). Informal activities with lecturers (1), availability of lecturer (2) equal treatment with lecturers (6), consideration of career goals (10), consideration as colleagues (11), asking feedback (12) and feedback on education (15), common problem solving (17) and bidirectional communication (18), common research with lecturers (20), and individual support (22) became attractive features, so they happy about them. Helpful lecturer (3) has become a one-dimensional attribute, so they are disappointed if they won't get it. We can see that these are mainly older part time students at bachelor level. We can call them enthusiastic students, and they give 43% of students.

Table 6. The most frequent Kano-category of partnership elements in different clusters.

	Clusters		
	1	2	3
1. Informal activities with lecturers	I	A	I
2. Availability of lecturer	I	A	I
3. Helpful lecturer	A	O	I
4. Direct and attentive relationship	A	A	I
5. Students can trustingly contact their instructors	A	A	I
6. Equal treatment with lecturers	I	A	I
7. Clear rules and requirements	O	O	I
8. Fair assessment	O	O	I
9. Groupwork	I	I	I
10. Consideration of career goals	I	A	I
11. Consideration as colleagues	I	A	I
12. Lecturer asks feedback	I	A	I
13. Consider students' opinion	A	A	I
14. Active participation in lectures	I	I	I
15. Feedback on the education	I	A	I
16. Students are interested in course	A	A	I
17. Students assist in solving problems	I	A	I
18. Prompt bidirectional communication	I	A	I
19. Mutual respect and politeness	O	O	I
20. Common research	I	A	I
21. Mentoring of talented students	A	A	I
22. Individual support	I	A	I
23. Performance recognition	A	A	I
24. Inspiring participation	A	A	I

Source: own analysis

It should be note that although there were no attribute, where the most frequent category were reversal, but the active participation in lectures (71 votes) and groupwork (48 votes) were those, where this category received a significant vote, so every 5th student doesn't like to participate in lectures, and 15% don't like groupwork. On other side we can see, that clear rules (75 votes) are must be attributes for every 4th student, while fair evaluation (69 votes) was the same for 22% of the students.

We assumed that these differences would thank to the different motivation of students. And we asked them why they participate in tertiary education. At the lowest level (Fosz) student want to learn new things (42%), want to get a degree (31%), but knowing new people (11%) and get status (7%) were also significant. At bachelor level get a degree (78%), while at master level the same (25%) and learn new things (58%) were the most frequent answer. But between the clusters there were no significant difference (significance value is 0,254, but 50% of the cells expected value is less than 5) in the motivation of students. But it should be note that in the totally unmotivated group 61% of student said, that they wanted (only) a degree, or 3% were here because of good entertainment options and only 36% wanted to learn new things.

4. In Conclusion

In our research we examined the elements of student partnership using Kano-model. We analyser 316 students answer at business area. We found that there are 3 main groups of student with decreasing requirements. The most important features of the education are clear rules and requirements, fair assessment and mutual respect as the lack of these cause dissatisfaction in most of the students (91%). For some students (43%) helpful lecturer also have the same effect. These findings are parallel with Tóth and Bendzsula's (2021) results, as they also found that the first two attributes were the most important for students. We also found that 43% of students, mostly elder and part-time students, were enthusiastic and evaluate, if they are treated as colleagues, or involve in common research, problem solving, have bidirectional communication with lecturers and can give feedback on education. These finidings are the opposite of Tóth and Bendzsula (2021), as the first two statement along with common informal activities were the least preferred elements according to their research. One-fifth of the students doesn't like to participate in lectures, and 15% hate groupwork. Finally we identified the 9% of students as totally uninterested, as they have no requirements only want to get a certificate.

The limitation of our research is the sample size, and the regional nature of students, although we wanted to measure only the opinion of the student in our faculty. It should be note, that the response rate of the part-time students was lower. So we would continue data collection in order to get robust results.

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