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VALUE CO-CREATION STYLES IN HIGHER EDUCATION AND THEIR CONSEQUENCES. The Case of Poland

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ABSTRACT

Effective education at the tertiary level is one of the key conditions for the development of modern economies; it also has a substantial impact on social development. Nowadays, higher education institutions all over the world are facing numerous challenges, some of them global (e.g. funding), others local (e.g. demographic trends). Universities are seeking new ways of dealing with the challenges; however, they often resort to methods that seem to do more harm than good by moving the emphasis from long-term objectives to short-term ones. In marketing literature, a new concept of Service-Dominant Logic (SDL) is proposed as an alternative approach to traditional and outdated marketing theories applied to the higher education sector. Its foundational premise of value co-creation seems to be of particular relevance here as it assumes that various groups of actors jointly create the academic experience. This paper focuses on the higher education sector in Poland and investigates the attitudes of Polish students towards value co-creation and their consequences for the academic experience. The study leads to the identification of value co-creation styles among students reflected by five segments: Maximalists, Minimalists, the Scrupulous, the Networking-Oriented and the Intellectuals and presents their detailed characteristics.

Keywords: Value, Co-Creation, Higher Education, Poland, Students

1. VALUE CO-CREATION IN HIGHER EDUCATION

Higher education institutions (HEIs) all over the world are facing many challenges such as budget cutbacks (Harman, 2006; Wong, 2004), increasing competition among domestic institutions (Allen & Shen, 1999), a decline in college-age population (Alves, 2010), quick technological changes (Wong, 2012), and changes in students' expectations about the programs and degrees (LeBlanc & Nguyen, 1999; Ledden et al., 2007). In Europe, the higher education sector has undergone a profound change in the way the university education is provided, putting great emphasis on student mobility and teaching quality being a major goal of the Bologna Declaration (Diaz-Mendez & Gummeson, 2012). Additionally, today's typical students state that goals related to extrinsic value (fame, money, image) are of more importance to them than those of intrinsic value (self-acceptance, community) and are characterized as narcissistic and focused on short-term objectives, which also influences the education sector (Judson & Taylor, 2014; Stein, 2013).

Such a turbulent environment has led HEIs to implement an approach which is characterized by putting strong emphasis on competiveness among institutions, aggressive acquisition and retention of consumers (students) and their satisfaction (Diaz-Mendez & Gummeson, 2012; Wong, 2012). Additionally, it can be observed that standardization is becoming a new norm for HEI services and there is a growing need to quantify parameters and make them comparable. In order to achieve that, mechanisms such as guidelines, learning outcomes, assessment criteria, etc., are introduced and meant to codify and standardize the interactions between the student and the teacher (Diaz-Mendez & Gummeson, 2012; Morley, 2003, p. 129). As a result, strong emphasis is put on consumer satisfaction and promises of greater employability upon graduation (Taylor & Judson, 2014).

The above tendency is addressed by Judson and Taylor (2014), who distinguish between marketization of higher education and an actual marketing approach. Marketization of higher education is defined as a growing influence of market competition on academic life (Williams, 1995), which leads to a focus on short-term gains such as stakeholder satisfaction instead of learning, decreasing education outcomes (Arum & Roksa, 2011), and treatment of students as consumers instead of transforming them into scholars and critical thinkers (Molesworth et al., 2009). The marketization perspective on education is derived from the abating view of education as a public good (i.e. shared responsibility and resource), which is being replaced by the view of higher education as a private commodity (purchased individually) (Taylor & Judson, 2014). As a result, too much emphasis is put on student evaluations in assessing faculty performance, which brings numerous consequences, including grade inflation (Pounder, 2007). This perspective pressures universities to produce commercially-oriented professionals (rather than public-interest ones), to switch from an academic to operational role, and to focus on the content students want ("to have a degree" rather than "to be a learner") (Lynch, 2006; Molesworth et al., 2009; Taylor et al., 2011). Moreover, marketization pushes HEIs to focus on performance goals (value delivery) rather than learning goals (value co-creation) (Taylor & Judson, 2014).

In the face of the above issues, a growing body of literature calls for embracing the service-dominant logic (Vargo & Lusch, 2004; 2008; 2016) as a framework for understanding and analysis of HEI activities and value creation processes (Ford & Bowen, 2008; Lusch & Wu, 2012; Judson & Taylor, 2014; Taylor & Judson, 2014; Diaz-Mendez & Gummeson, 2012). Four of the fundamental premises of SDL are particularly relevant to the higher education sector: FP6 – value is co-created by multiple actors, always including the beneficiary; FP7 – actors cannot deliver value but can participate in the creation and offering of value propositions; FP9 – all social and economic actors are resource integrators; and FP10 – value is always uniquely and phenomenologically determined by the beneficiary. Although value co-creation takes place in an extended network of stakeholders, the core relationship takes place between the student and the lecturer (Diaz-Mendez & Gummeson, 2012; Wong, 2012; Lusch & Wu, 2012). An HEI provides both operand and operant resources which are utilized by all actors.

Students and lecturers play two principal roles in the higher education service value co-creation process, thus resource integration is largely an interaction process between (and among) the parties. Additionally, value is perceived as a complex construct being: subjective, perceived by the customer not determined by the seller, formed as a trade-off between benefits and sacrifices, but also: temporal in nature and its formation is impacted by cognitive and affective influences (Ledden & Kalafatis, 2010).

Although the topic of value in higher education is steadily gaining popularity, research on value co-creation in higher education is scarce. Diaz-Mendez and Gummesson (2012) state that the higher education sector is influenced by multiple factors and the presence of various groups of stakeholders with diversified needs, perspectives and behaviors. A literature review reveals two research approaches in terms of value co-creation: the first one focuses on a wide service ecosystem and studies cooperation of higher education institutions with external stakeholders; the other one focuses on students and their role and attitude to value co-creation. This paper focuses on the higher education sector in Poland and investigates the attitudes of Polish students towards value co-creation and their consequences for the academic experience. The study leads to the identification of value co-creation styles among students reflected by five segments: Maximalists, Minimalists, the Scrupulous, the Networking-Oriented and the Intellectuals and presents their detailed characteristics.

2. THEORETICAL FRAMEWORK

In this study, we assume multidimensionality of the value co-creation process. It comprises three dimensions: co-production (reflecting close cooperation among actors participating in the process), experience (as an enabler of value in use) and relations (interactions typical of the service context) (see: Fig. 1). The following sub-dimensions have been identified on the basis of the literature review and qualitative study:

Co-production refers to direct and indirect cooperation with customers (Hu & McLoughlin, 2012) and their participation in the service design process (Auh, Bell, McLeod, & Shih, 2007). Customers make a conscious decision regarding the level of their participation based on available information and can control their involvement level. The components of this dimension are similar to those of the DART model (Prahalad & Ramaswamy, 2004; Albinsson, Perera, & Sautter, 2016) that describes the basis of effective collaboration among actors:

- Information access refers to customers' ability to obtain all necessary information needed to reduce uncertainty and act effectively in the process of co-production (Kelley, Donnelly, & Skinner, 1990; Yi & Gong, 2013);
- Dialogue reflects the organizational ability to understand customers' needs and act towards their satisfaction. Dialogue should focus on important issues and lead towards joint actions (Prahalad & Ramaswamy, 2004; Hsieh & Hsieh, 2015):
- Control refers to customers' ability to control the process of value co-creation, as well as the company's flexibility (Jaakkola, Helkkula, & Aarikka-Stenroos, 2015). The company's willingness to share control with the customer is a sign of trust; however, it may be risky when the customer decides to act against the company's expectations (Fisher & Smith, 2011).
- **Experience** dimension reflects authentic customer experiences and enables value creation in a given context. Optimization of value emerging from customer experience requires customer involvement in the co-creation process (Ismail, Melewar, Lim. & Woodside, 2011).
 - o **Involvement** is connected with the customer's passive or active participation in the co-creation process (Kristensson, Matthing, & Johansson, 2008). It can take place on many levels and refer to various aspects of the process (Agrawal & Rahman, 2015).
 - Intellectual stimulation reflects the cognitive dimension of the experience (Sheth, Newman, & Gross, 1991; Schmitt, 1999; Gentile, Spiller, & Noci, 2007) and has been identified as one of the key elements of the value cocreation process in higher education (Dziewanowska, 2017).
- Relations refer to the presence of other actors in the ecosystem, as well as the fact that interactions among actors lead to the emergence of value in the process of co-creation (Lusch & Vargo, 2014).
 - Relations among students reflect social aspects of the experience (Schmitt, 1999; Sheth, Newman, & Gross, 1991) and are an important source of value in the higher education context (Dziewanowska, 2017). Students are key actors (along with lecturers) participating in the value co-creation process at universities (Diaz-Mendez & Gummeson, 2012; Lusch & Wu, 2012).
 - Interactions (knowledge sharing) are main touch points for actors in the value co-creation process (Ranjan & Read, 2016). Knowledge sharing emerges from interactions and is a key element of the learning and teaching process (Maglio & Spohrer, 2008; Aarikka-Stenroos & Jaakkola, 2012). It also emphasizes the role of operant resources in the higher education ecosystem. Moreover, interactions stimulate social practices (Nambisan & Baron, 2007) and knowledge sharing is an important element of value co-creation (Prahalad & Ramaswamy, 2004).

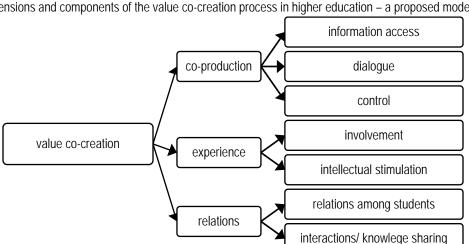


Fig. 1. Dimensions and components of the value co-creation process in higher education – a proposed model

Source: Own.

3. RESEARCH METHOD

In this study, a survey method was used. The questionnaire consisted of the following parts: questions about the dimensions of the value co-creation process, questions about feelings and attitudes towards educational services and respondent characteristics. There were 63 statements with a Likert scale anchored at 1 – completely disagree and 5 – completely agree. The statements were partially adapted from previous research on educational experience (Dziewanowska, 2016; Dziewanowska, 2016a; Dziewanowska, 2015) and on dimensions of the value co-creation process (Ranjan & Read, 2016). The questionnaire was tested in a pilot study (sample of 214 respondents) and some questions were rephrased.

The research method was a pen-and-paper survey conducted in March-May 2017. The questionnaire was distributed to students who had consented to participation in the study. Out of 1300 questionnaires distributed, 1027 complete ones were used in the analysis with the use of SPSS and AMOS software. The research sample consisted of 1027 business students from 3 Polish universities: University of Warsaw, Economic University in Poznań and Economic University in Katowice. The sample was selected in a way that reflected the actual gender and year-of-study distribution (see Tab. 1).

Tab. 1. Respondents' characteristics

	University of Warsaw	Economic University in	Economic University in
	(UW)	Katowice (UEK)	Poznań (UEP)
Total	350 (100%)	353 (100%)	324 (100%)
Women	234 (67%)	253 (72%)	191 (59%)
Men	116 (33%)	100 (28%)	133 (41%)
1st year BA	70 (20%)	82 (23%)	58 (18%)
2nd year BA	78 (22%)	82 (23%)	60 (19%)
3rd year BA	66 (19%)	62 (18%)	58 (18%)
1st year MA	75 (21%)	65 (18%)	86 (27%)
2nd year MA	61 (17%)	62 (18%)	62 (19%)

Source: Own.

Tab. 2. Items and factor reliability

It hink my university understands my needs In my opinion, my university treats me seriously It hink my university actively attempts to satisfy my needs If think my university actively attempts to satisfy my needs If feel well-informed I can easily access information that is important to me My university uses right channels of communication Control I know that results of my study depend mostly on me During my studies, I can undertake activities that are beneficial to me I have a feeling that regarding my studies, I am in control of my fate Intellectual stimulation Studying broadens my horizons Studying helps me develop myself Studying forces me to think I nam involved in my studies I spend more time studying than most people I put minimum effort into my studies* Relations among students I like spending free time with my friends from the university The most important aspect of studying are people whom I meet In the future, I intend to keep in touch with people I got to know while studying In the future, I intend to keep in touch with people I got to know while studying	Item	Cronbacha's alpha					
I think my university understands my needs In my opinion, my university treats me seriously I think my university actively attempts to satisfy my needs Information access I feel well-informed I can easily access information that is important to me My university uses right channels of communication Control I know that results of my study depend mostly on me During my studies, I can undertake activities that are beneficial to me I have a feeling that regarding my studies, I am in control of my fate Studying broadens my horizons Studying helps me develop myself Studying forces me to think Involvement I am involved in my studies I spend more time studying than most people I put minimum effor into my studies' Relations among students I like spending free time with my friends from the university The most important aspect of studying are people whom I meet In the future, I intend to keep in touch with people I got to know while studying I niter the studying studies to know while studying I niter future, I intend to keep in touch with people I got to know while studying		Cionbacha s alpha					
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I put minimum effort into my studies* Relations among students I like spending free time with my friends from the university The most important aspect of studying are people whom I meet In the future, I intend to keep in touch with people I got to know while studying	I am involved in my studies						
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In the future, I intend to keep in touch with people I got to know while studying	I like spending free time with my friends from the university						
	The most important aspect of studying are people whom I meet	0.805					
	In the future, I intend to keep in touch with people I got to know while studying						
intoractions/morage sharing	Interactions/knowledge sharing	•					
I like to share my knowledge with others 0.772	I like to share my knowledge with others	0.772					

I readily	y talk to other students about my experiences	
I willing	ly talk about my experiences in class	

Source: Own, N=1027.

4. ANALYSIS OF THE RESULTS

This study used a reflective approach based on the assumption that observed variables reflect the influence of a hidden construct (Edwards & Bagozzi, 2000; Sagan, 2003). In order to assess the proposed model, a number of methods was used including: exploratory and confirmatory factor analysis (for factor identification and validation of the model reliability), Cronbach's alpha for factor reliability, as well as AVE and CR indicators for model fit. The analysis confirmed good model fit and internal reliability of 7 sub-dimensions of the value co-creation process (Cronbach's alpha above 0.721). The items and factor reliability are listed in Table 2.

In the next step of the analysis, a segmentation procedure was used to identify value co-creation styles among university students with the use of the k-means method (Dibb, Stern, & Wensley, 2002; Rószkiewicz, 2002b, p. 236). The decision regarding the number of identified segments was based on multiple criteria: size of the segment, analysis of distances between centers of clusters, dendogram analysis and analysis of variance (ANOVA). As a result, 5 segments were identified and were labeled in a way to reflect the key characteristics of their participants in terms of the dimensions of value co-creation (see: Table 3).

Tab. 3. Segment characteristics

		Segment					
	Maximalists	Minimalists	Scrupulous	Networking- oriented	Intellectuals	population	
Dialogue	3.57	2.41	3.47	2.45	2.60	3.02	
Information access	3.66	2.57	3.70	2.64	2.62	3.16	
Control	4.26	3.20	4.14	3.58	3.61	3.86	
Relations with students	4.17	3.01	3.35	4.32	3.39	3.78	
Interactions	4.07	3.11	3.23	4.04	3.53	3.70	
Involvement	3.73	2.65	2.93	2.82	3.82	3.26	
Intellectual stimulation	4.41	3.18	3.87	3.65	4.22	3.96	
Segment size	353 (34%)	154 (15%)	176 (175)	204 (20%)	140 (14%)	1027 (100%)	

Source: Own.

The Maximalists (MAX) constitute the largest of five segments, with 34% of respondents (353 people). Their label reflects the fact that in all co-creation dimensions their results are above the average: in the case of dialogue, control, intellectual stimulation and interactions, they ranked highest among all segments, while in the case of involvement, information access and relations with other students, they ranked second. Clearly, these students participate in the value co-creation process to the fullest. In terms of their demographic characteristics, Maximalists tend to be rather bachelor than master students. There also seems to be a larger representation of UW students with relatively lower representation of UEP students. Finally, almost half of Maximalists work full-time, which contradicts a popular belief that it is impossible to combine full-time studies and full-time work.

In turn, representatives of the second segment are a complete opposite to these from the first segment. They scored lowest in all dimensions of value co-creation and were labeled the **Minimalists (MIN)**. They comprise 15% of the population (154 people). In this segment, there seem to be relatively many second-cycle students, as well as students from UEP. They also frequently work during studies – over 50% work full-time and 17% work part-time.

The Scrupulous (SCR) scored high in co-production dimensions, i.e. information access (3.7), dialogue (3.47) and control (4.14), medium in the experience dimension and low in the relational dimension. They comprise 17% of the population (176 people). In terms of demographics, it can be observed that they tend to be freshmen and there are relatively fewer older students

in this group. Also, there are comparatively more students of UEK and fewer of UW. Respondents from this segment were the least likely to undertake employment while studying, with almost half of them not having any job.

The fourth segment was labeled the **Networking-Oriented (NET)** as this group of respondents scored high for the relationship dimension. It means that for the **Networking-Oriented**, the most important aspects of studying are other people, relationships with them and knowledge-sharing practices. In line with this observation, other dimensions are very low: in the case of dialogue, information access and involvement, the scores reflect a negative attitude of the respondents. This segment is the second largest and comprises 20% of the population (204 people). In terms of demographics, the **Networking-Oriented** tend to be students with some but not too much academic experience and there are relatively fewer freshmen and students of the last year of the second-cycle studies. The most prominent group among them are students from UEP and the least prominent one are students from UW. There is a small share of people whose sole occupation is studying and almost half of them work full-time.

The last segment comprises 14% of the population (140 people) and was labeled **the Intellectuals (INT)**. They scored high in the experiential dimension of value co-creation (3.82 for involvement and 4.22 for intellectual stimulation). They negatively assessed dialogue and access to information and scored moderately in other sub-dimensions. It can be observed that among the Intellectuals, there are relatively few freshmen and quite a few of students beginning their master level of education. Perhaps 'appetite for studying' is an acquired taste and it develops with time. It can also be connected with the fact that moving to a next level of university education requires a higher level of intellectual involvement. The largest share of this segment is constituted by students of UW and the smallest by those from UEK. Similar numbers of the Intellectuals focus solely on studying and combine their studies with full-time work. The detailed demographic information is presented in Table 4.

Tab. 4. Demographic information about the sample

,	Variable/Segment	MAX	MIN	SCR	NET	INT	total	chi ²
Gender	Women	67.1%	59.7%	63.1%	65.7%	74.3%	66%	x ² = 7.861 df= 4 p= 0.097
	Men	32.9%	40.3%	36.9%	34.3%	25.7%	34%	
Year of study	1st BA	24.6%	14.3%	32.4%	13.7%	11.4%	20.4%	
	2nd BA	20.1%	18.8%	21.6%	26.0%	20.7%	21.4%]
	3rd BA	19.5%	16.9%	10.8%	22.5%	18.6%	18.1%	x ² = 55.808 df= 16 p= 0.001
	1st MA	17.6%	24.7%	19.9%	22.5%	32.1%	22%	
	2nd MA	18.1%	25.3%	15.3%	15.2%	17.1%	18%	
University	UW	40.2%	31.2%	23.9%	25.5%	47.1%	34.1%	x ² = 42.554 df= 8 p= 0.001
	UEK	34.3%	29.9%	44.9%	36.3%	23.6%	34.4%	
	UEP	25.5%	39.0%	31.3%	38.2%	29.3%	31.5%	
Occupational status	I only study	42.8%	31.8%	48.9%	34.3%	44.3%	40.7%	x ² = 22.193 df= 8 p= 0.005
	I study and work full time	49.0%	51.3%	39.8%	50.0%	45.7%	47.5%	
	I study and work part time	8.2%	16.9%	11.4%	15.7%	10.0%	11.8%	

Source: Own.

5. SEGMENT PROFILING

In order to describe the segments further, six other aspects were analyzed and discussed:

- Students' participation in additional activities (beyond simple studying), e.g. student union, workshops, conferences and social events:
- Usefulness of obtained knowledge and its current and future utility;
- Feelings connected with studying and the university, such as pleasure, pride;
- Assessment of aesthetics and functionality of the university environment (conditions);
- Students' loyalty towards the university;
- Perceived university image.

For each of the above aspects, a scale comprising 3-6 statements was created and their reliability was tested with Cronbach's alpha achieving satisfying results (ranging from 0.791 to 0.931). In the next step, ANOVA was performed and further analysis (SNK test) allowed to find out actual differences among the segments (see Fig. 2 and 3).

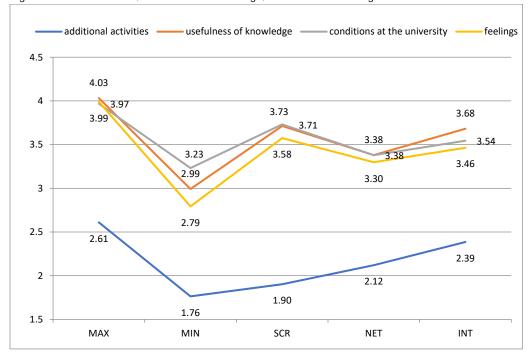


Fig. 2. Additional activities, usefulness of knowledge, conditions and feelings

Source: Own.

The above figure (2) presents average scores for each segment in terms of their assessment of the analyzed aspects. First of all, it should be noted that generally students score very low in terms of their participation in additional activities. Secondly, representatives of the **Maximalists** segment score highest in all remaining aspects, with the **Scrupulous** and the **Intellectuals** following closely. The **Minimalists** score the lowest and the results for the **Networking-Oriented** are slightly higher. Finally, a surprising conclusion comes from the analysis of students' involvement in additional activities, where the lowest scores are for the **Minimalists** and the **Scrupulous**.

Similar observations can be made in terms of students' declared loyalty towards the university and its perceived image. In both aspects, it is clear that the **Maximalists** show the highest loyalty and perceive their university most favorably. Interestingly, they are the only group for which the declared loyalty (4.09) is actually higher than the perceived image (3.89). Not surprisingly, in the case of the **Minimalists**, both aspects show the lowest scores, with the loyalty level of 2.92 indicating that they rather do not feel much attachment towards their university. For the remaining segments, the scores are quite similar, ranging from 3.26 (for the

Networking-Oriented) to 3.61 (for the **Scrupulous**) in the case of loyalty and 3.41 and 3.63 for the perceived image respectively. The **Intellectuals** score almost identically for loyalty and image (about 3.5) and place themselves in the middle of these three segments.

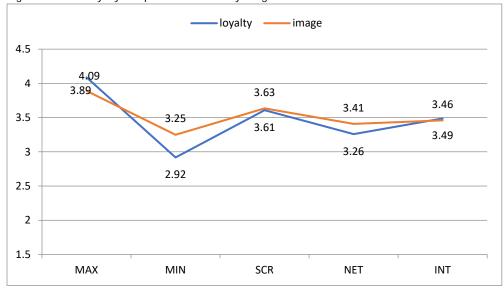


Fig. 3. Students' loyalty and perceived university image

Source: Own.

6. CONCLUSIONS

The above results of the segmentation and their analysis allow to draw some practical conclusions, although, due to the sampling method used in the study, one has to be careful with making generalized observations. First, in the case of Maximalists (i.e. students who positively assessed all dimensions of the value co-creation process), all aspects of their academic experience are positively perceived, including their relations with university employees, university image, feelings and loyalty. The exact opposite results can be observed in the case of the Minimalists, where low results in value co-creation dimensions are accompanied by low assessment of other aspects of the academic experience. It is rather optimistic though that the Maximalists segment is more than twice the size of the Minimalist segment.

The analysis of the results allows for noting that students focus on various aspects of the academic experience. For the Networking-Oriented, the main source of value are other students and relationships with them. The Intellectualists are focused on their studies and the learning process. Finally, the Scrupulous are students who are well-oriented in how the organization functions and feel in control of their education process. Belonging to a particular segment is also associated with the perception of other aspects of the academic experience. The results show that the Scrupulous rate them relatively high (not as high as the Maximalists, though), while the Networking-Oriented rate them rather low (although higher than the Minimalists). The question that arises here concerns the direction of this relation: for example, does an improved relationship with university employees affect students' willingness to engage more in the value co-creation process or vice versa? The answer to this questions, however, lies in the area of future research.

A look at demographic characteristics also shows some interesting conclusions. First of all, members of all segments significantly differ in terms of year of studies, study cycle, university and their professional status. It is worth noting that a large number of students undertake employment while studying, more often full- than part-time. It proves that being a student is no longer a main occupation for young people. It is rather an addition to their private and professional lives, which may affect their willingness and ability to actively participate in the value co-creation process.

Another interesting observation is that the distribution of students from each university is not equal among segments. One can observe a kind of specialization: students from the University of Warsaw dominate among the Maximalists and the Intellectuals, the Scrupulous come frequently from the University of Economics in Poznań, and the Networking-Oriented and Minimalists from the University of Economics in Katowice. Again, a question about the nature of this phenomenon arises: do universities attract students with specific predispositions or do they shape them? Presumably, the truth lies in the middle: the reputation of the University of Warsaw (the largest and best in Poland) attracts students interested in high quality of education (self-selection); good organization, information flow and kind employees influence the formation of the Scrupulous segment, while an active students' union and favorable conditions facilitate strong relations among students. The results of the study show that each university has the potential to effectively differentiate and position itself in the market.

This study is not without its limitations which include the above-mentioned sampling method and the fact that it is focused only on business students in Poland. These limitations point to potential directions of future research which may include a quantitative study on a nationwide or even international sample, as well as examining the nature of the value co-creation process among students of different majors, e.g. technical, humanities and arts. Another interesting avenue of future research should be focused on determinants of students' participation in the value co-creation process, as well as on other stakeholders in higher education, e.g. parents, friends and employers.

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