



# REVIEW OF INNOVATION AND COMPETITIVENESS

---

A JOURNAL  
OF ECONOMIC  
AND SOCIAL  
RESEARCH

7

VOLUME

ISSUE 1

2021

## Editors

**Marinko Škare**, Juraj Dobrila University of Pula  
**Danijela Križman Pavlović**, Juraj Dobrila University of Pula

## Board of Editors

**Jurica Pavičić**, University of Zagreb | **Nikša Alfirević**, University of Split | **Tihomir Vranešević**, University of Zagreb | **Soumitra Sharma**, Juraj Dobrila University of Pula | **Branka Krivokapić Skoko**, Charles Sturt University | **Peide Liu**, Shandong University | **Jerzy Paslawski**, Poznan University | **Irene Lill**, Tallinn University of Technology | **Edyta Plebankiewicz**, Cracow University of Technology | **Edmundas Kazimieras Zavadskas**, Vilnius Gediminas Technical University | **Romualdas Ginevičius**, Vilnius Gediminas Technical University | **Maria-Gabriella Baldarelli**, University of Bologna | **Nawazish Mirza**, S P Jain School of Global management | **Vesna Buterin**, University of Rijeka | **Justyna Franc-Dabrowska**, Warsaw University of Life Sciences | **Moshe Hagigi**, Boston University | **Alex Kung-Hsiung Chang**, National Pingtung University of Science and Technology, Taiwan

## Managing Editor

**Katarina Kostelić**, Juraj Dobrila University of Pula

## Lector

**Filomena Škare**

## Editorial address

**Juraj Dobrila University of Pula**  
**Faculty of economics and tourism "Dr. Mijo Mirković"**  
Zagrebačka 30, 52100 Pula (Croatia)  
+385 (0)52 377-047, fax: +385 (0)52 377-013  
e-mail: fet-ric@unipu.hr

The print issue is published annually, with continuous publishing of individual articles online.  
Annual subscription: 200 HRK.  
Journal is published with the help of Ministry of science and education.

## Layout

**Sveučilište Jurja Dobrile u Puli, Sveučilišna knjižnica u Puli, Ured za izdavačku djelatnost**

## Print

**Sveučilište Jurja Dobrile u Puli, Sveučilišna knjižnica u Puli, Ured za izdavačku djelatnost**

## Copies

50

JOURNAL DOI: 10.32728/ric

ISSUE DOI: 10.32728/ric.2021.71

ISSN (Print): 1849-8795

ISSN (Online): 1849-9015

# THE PERCEIVED VALUE OF HIGHER EDUCATION AND UNIVERSITY COMPETITIVENESS – THE RUBIK CUBE METAPHOR

---

**Costinel Dobre, Gheorghe Preda, Anca Milovan, Remus  
Ionut Naghi, Sorin Ioan Prada**

(1, 2, 3, 4, 5) Marketing and International Economic Relations Department,  
West University of Timisoara, Romania,

---

**Costinel Dobre**  
Marketing and International Economic Relations Department,  
West University of Timisoara, Romania,  
costinel.dobre@e-uvt.ro

---

**Article info**  
Paper category: Original Scientific Paper  
Received: 22.12.2020.  
Accepted: 14.4.2021.  
JEL classification: M31, I21  
DOI: <https://doi.org/10.32728/ric.2021.71/2>

---

**Keywords**  
Perceived Value; Entrepreneurial University; Marketing Approach; Students Perceptions;  
University Image

---

## ABSTRACT

**Purpose.** *Over the past two decades, concerned with how stakeholders perceive the value of their services, universities have adopted entrepreneurial orientations and relationship marketing approaches into their activities. The fierce competition on the global higher education market, forced university managers to innovate, to look for new ways to build their offer. Relationship marketing and the knowledge regarding the stakeholders, primarily the students' perception of their offerings, can provide universities with a competitive advantage. As such, university managers need to carry out satisfaction surveys, inquiries regarding the universities image or the perceived value of the academic programs and services offered, need to plan and organize offline and online integrated marketing communication campaigns.*

**Methodology /Design/Approach.** *Based on the resemblance of perceived value with a Rubik's cube, university marketers can constantly innovate through the way they match the various dimensions of perceived value or facets of the cube to meet the stakeholders' expectations.*

**Result /Findings.** *This research highlights the dimensions of the perceived value of the educational offer and determines the extent to which factors such as the university image, the source of financing the studies and the duration of the student - university relationship have an influence on the perception of value. For this purpose we conducted a quantitative research on a sample of 320 students from the largest faculty from the West University of Timișoara, Romania. To perform the statistical data analysis, the following steps were carried out: (1) the reliability of the measurement scales analysis; (2) the opportunity to perform the factorial analysis verification; (3) the exploratory and confirmatory factor analysis and (4) the research hypotheses testing. Research results showed that the perceived relational value affects the student's perceptions on the quality of learning, the usefulness and quality of the acquired knowledge, the employment opportunities. The institutional image has a positive influence on the perceived value of the educational offer. For university or faculty managers, it is important to know how to combine the various facets of the perceived value-technical value, relational value, social value, temporal value- in order to provide the value expected by their stakeholders, primarily by students*

## 1. INTRODUCTION

Over the past 25 years, the educational sector in Europe has suffered major changes which have led to the intensification of competition. The (1) Bologna Agreement application that led to increased student mobility in the European superior education space and to an increased offer transparency; (2) reduction in the number of students due to demographic issues; (3) economic issues, especially the budgetary restrictions tightening, are among the factors that contributed to the present situation.

In Central and South-Eastern European countries, such as Romania, the pressure put on managers in the education sector is even greater for two reasons: (1) high school graduates apply for admission at universities in Western Europe; (2) the migration of young families to countries such as Germany, Italy, Spain, UK, etc. looking for jobs, which reduces the selection pool for universities in this geographical area.

These factors provoked turbulences into the market and increased the educational sector managers' competitiveness in finding ways to attract and retain students. According to Štimac and Šimić (2012), the main goal of increasing the competitiveness of the national education system is to increase the competitiveness of the country. In modern markets, educational services are delivered in a highly competitive environment (Kireeva et al., 2018).

Judson and Taylor (2014) have analyzed and shown the differences between using a marketing approach and marketization in higher education institutions. The authors make it clear that a marketing approach has a long term vision, and results, students acquire knowledge and skills, develop critical thinking, personal growth, beneficial not only for the student itself, parents or industry, but also for the whole society.

On the same note, there is the idea of considering students as customers, and academic programs as products intended for purchase. Mok (1999, in Brown, 2006: 58) refers to the "McDonaldization" of the superior education and shows that a university is an "atypical store":

- With a "Store" entrance that requires that the client passes a test (i.e. the universities where admission implies passing an exam);
- Which requires advance payment of substantial sums of money to take possession of the product;
- With customers that are encouraged to participate in creating the product for a considerable period of time;
- Where the supplier is free to refuse to offer the product to the customer if its standards are considered too low for the standards imposed by the university / "store".

Brown (2006) has identified many other reasons for considering universities as atypical organizations on the services market. First of all, considering education a commercial transaction, compromises the purpose of education and leads to a nar-

row definition of the notion of client. Students cannot be treated solely as clients as in a „pure” commercial transaction, they are, in the same time, resources made available by universities for the benefit of the entire society. Thus, confusion is created between short term satisfaction and long-term learning. Furthermore, the total dimension of the market and its distribution among universities is established by the governmental institutions which act as market organizers, universities having a limited autonomy in the decision-making process. Student satisfaction is determined to varying degrees, by public policy and university management. Moreover, the student - professor quality interaction is difficult to measure and the level of cognitive effort and the intensity of motivation required for consuming this service are very different compared to the ones associated to other services. In addition, products and services from the educational sector are „actively” consumed, the students becoming co-producers. If academic programs are the products and services sold by universities, there is a dilemma regarding up to which point students can be involved in defining their own curricula.

The emergence and development of the Internet has led to a major change in the nature of education (Wegerif, 2019), the nature of the student-professor relationship, but also in terms of providing support services. The use of the Internet forced university managers to innovate, rethink and redesign the academic programs, the curricula in order to adapt to the Z generation expectations. The members of this generation are tech-savvy, active on social networks and demand fast, even instant access to authentic information through new delivery modes and integrated online platforms.

Since Romanian universities, just like many universities from other countries, operate in a highly competitive environment, their corporate approach in management and market-oriented behaviours become more obvious. The survival and development of higher education institutions depend on creating and maintaining a long-term relationship with their stakeholders, mainly with their students. From durable relationships, universities might gain positive outcomes such as positive viral communication, the students need to identify with the image and reputation of the graduated university/faculty, commitment from alumni who become brand ambassadors for their universities.

Student perception is the starting point for evaluating the perceived quality of the educational services (Drule et al., 2014; Teng et al., 2013). According to Drule et al. (2014) the perceived quality of the educational process is one of the most important elements that favor the improvement and modernization of Higher Education.

The orientation towards entrepreneurship and the adoption of a marketing optic made concepts such as student satisfaction, perceived quality and perceived value count more. Knowing the elements of perceived value, the perceived benefits and sacrifices (what the student is willing to give for what the student receives) can lead to a better use of the human, financial, material resources, with long-term positive effects for the whole society.

Studies have primarily focused on the way the perceived value of HE is formed and its impact on the satisfaction and loyalty of university stakeholders. Research has shown more interest on the perceived value of university programs, the technical value ("what is offered") and less on the perceived relational value ("how it is offered"), the social value, the perceived value of servicescape, more on the hardware quality and less on the humanware quality. In this study, we highlighted that the other dimensions of perceived value (relational, social, servicescape) have an influence on how students perceive the technical value or what the faculty programs offer them and that its development requires the development of other dimensions of perceived value.

In Central and South-Eastern European countries there is a limited number of studies that tackle the students' perception regarding the value of HEI and its determinants. The main reason could be the time lag between the entrepreneurial perspective adoption and the marketing function integration in these universities compared to the universities in the developed countries of Western Europe, America, Asia, etc.

The present study tried to cover this gap by decomposing the value offered by HEI in Romania into 5 dimensions and testing the relationships between the identified dimensions. In addition, the study determined the influence of some factors (image, relationship duration, source of financing the studies) on the perceived value of the university offer.

Our findings indicate that students judge the technical value ("what is being offered?") both directly and under the influence of the relational or functional value ("how is it offered?"), the social value and the service' environment value. We determined that the HEI's image influences the students' perception on the university's offer, which proves that adopting the marketing optic is very important. The perceived value has a dynamic character, it changes as the students get to know the university' offer better. However, the source for financing the studies (own funds or from the budget) does not have a significant influence on the perceived value of the HEI.

## **2. LITERATURE REVIEW**

### **2.1. The perceived value of the higher education**

The title of this paper has been suggested by Woodall's article (2003: 21) which associates the perceived value with the popular Rubik cube. The metaphor suggests the idea that in order to satisfy their customers, companies have to break down the value they expect in several dimensions and find the best combination.

For Monroe (1990, in Sánchez-Fernández, Iniesta-Bonillo, 2007: 440), the buyer's perceptions of value represents a balance between the perceived quality or benefits associated with the product, and the perceived sacrifices made for paying the price for that product.

Using the theory of consumption values, Sweeney and Soutar (2001) developed the PERVAL model and identified four dimensions of value: (1) emotional; (2) social; (3) quality / performance and (4) price/value for money. Wang, et al. (2004) adopted the framework proposed by Sweeney and Soutar and included other non-monetary sacrifices such as time, effort and energy in their model.

Heinonen (2004) identifies four dimensions of the perceived value of services: (1) the technical value refers to the attributes of the basic service offered by the company (tangible elements of the service, the supplier's image, the purchase price); (2) functional value refers to the attributes of the serving process or to the seller-buyer interaction (promptness of services, quality of interaction, quality of communication, kindness, empathy, personalization, relational sacrifice, etc.); (3) time value refers to attributes related to the moment of service (delivery speed, waiting time, accessibility, etc.); (4) environment value includes attributes that relate to the place or environment of service delivery (ambience, visibility, agglomeration).

Authors who have approached the perceived value of educational products and services report the small number of articles published on this topic (Alves, 2010; Brown, 2006). In the context of the higher education sector, the perceived value is the result of a complex process where benefits can be assessed in academic, social, personal and employability terms, while sacrifices are either of a monetary nature (registration taxes, studio fees, travel, accommodation, etc.) or consider personal effort.

Takalo, et al. (2013) emphasizes that the product of education is intangible and therefore it can be difficult to quantify. The authors point out that marketization is an erroneous orientation because it focuses on the satisfaction of stakeholders (students, faculty, future employers, government, etc.) to the detriment of the academic goal of current learning and long-term orientation, which ensures the viability of universities.

Doña-Toledo et al. (2017: 538) define value as "the net result of assessing perceived sacrifices and benefits, taking into account academic, social, quality aspects, personal development issues, employability and confirmation of expectations as the final results." Literature review has highlighted the use of several established scales to measure the perceived quality of the services provided by universities: SERVQUAL, GLOVAL, SERVPERF, PERVAL, SERV-PERVAL.

Cronin and Taylor (1992) have developed the SERVPERF scale (service performance measurement scale) that has been successfully used in assessing the perception of quality for the service offered by universities in UK. The main instrument used to measure the perceived value of educational products and services is the PERVAL scale developed by Sweeney and Soutar (2001).

HEdPERF is a specific scale for measuring the perceived quality of services for higher education institutions and includes 41 items (Firdaus, 2006, a). Firdaus (2006, b) made a comparison between the HEdPERF scale and the SERVPERF scale



in terms of reliability, validity and unidimensionality. By combining two factors specific to the SERVPERF scale (reliability and empathy) and two factors specific to the HEdPERF scale (non-academic aspects and academic aspects) the HEdPERF-SERVPERF scale resulted.

Alves (2010) made a research addressing the perceived value of products and services offered by higher education and identified the studies below.

**Table 1.:** Studies on the perceived value of educational products and services

Authors and year	Type of approach
LeBlanc and Nguyen (1999)	<p>Multidimensional approach where the perceived value had the following dimensions:</p> <ul style="list-style-type: none"> <li>• Functional value expressed by the quality / price ratio;</li> <li>• Epistemic value;</li> <li>• The functional value expressed by the possibility to achieve the goals after graduation;</li> <li>• Emotional value;</li> <li>• Social value.</li> </ul>
Brown and Mazzarol (2009)	<p>Multidimensional approach in which perceived value was measured through:</p> <ul style="list-style-type: none"> <li>• Emotional value;</li> <li>• Social value;</li> <li>• Price / value;</li> <li>• Performance.</li> </ul>
Sanchez-Fernandez, et al. (2010)	<p>The authors consider the quality of interaction, trust and image as antecedents of perceived value, while satisfaction and loyalty are the consequences of perceived value.</p>
Jiménez -Castillo, Sánchez -Fernández and Iniesta -Bonillo (2013)	<p>Perceived value is measured by:</p> <ul style="list-style-type: none"> <li>• Economic value of the facilities and services (efficiency);</li> <li>• Perceived value of academic programs (excellence);</li> <li>• Social value (status and esteem);</li> <li>• Hedonic value (ludic and aesthetic aspects);</li> <li>• Altruistic value (ethics and spirituality).</li> </ul>
Doña-Toledo, Luque -Martínez and Salvador Barrio-García (2017)	<p>Authors validated a model of the antecedents and consequences of university graduates' perceived quality and analysed the moderating role of the level of involvement in higher education variable. Perceived quality is the main antecedent of perceived value comprising four dimensions: teaching staff, infrastructure, administrative staff, and support services. Overall satisfaction and overall image of the university are considered consequences.</p>

Source: Alves, 2010, p. 17; authors.

In their study, Sanchez-Fernandez, et al. (2010) present the antecedents and consequences of the perceived value of educational services. The authors consider the quality of interaction, trust and image as antecedents of perceived value, while satisfaction and loyalty are the consequences of perceived value.

Identifying the components of perceived quality is a complex task due to the variety of programs and services offered by universities (Bigné et al., 2003).

Pereda et al. (2007) identify four dimensions of the perceived quality of educational services: (1) recognition / image / reputation; (2) the quality of academic training and the interaction with the educational service provider staff; (3) sufficiency of resources; (4) the quality of the facilities.

Doña-Toledo et. al. (2017) included the following components of perceived quality: (1) the perceived quality of the services provided by the academic staff; (2) the perceived quality of the university infrastructure; (3) the perceived quality of the services provided by the administrative staff; (4) the perceived quality of support services.

Teeroovengadam, et al. (2016), claiming the superiority of their HESQUAL model in comparison with other models, decompose the perceived quality into the following dimensions: (1) the perceived quality of administrative services; (2) the perceived quality of the physical environment; (3) the quality of educational services or study programs; (4) the perceived quality of the support facilities; (4) the transformative quality.

LeBlanc and Nguyen (1999) developed a model for perceived value and identified six dimensions of the perceived value of higher education: (1) functional value (economic utility or employment opportunities offered; (2) epistemic value (knowledge); (3) the image; (4) the emotional value; (5) the functional value (quality / price ratio or the perception that the investment in education is worth it); (6) social value;

Jiménez -Castillo et. al. (2013) identified five dimensions of the perceived value of the educational offer: (1) the economic value of the facilities and services offered by the university (efficiency); (1) the perceived value of the academic programs (excellence); (3) the social value (status and esteem); (4) the hedonic value (ludic and aesthetic aspects); (5) the altruistic value (ethics and spirituality).

Literature approaches social value primarily through its ability to help consumers increase their perceived status in the community and/or improve their self-esteem (Kumar, Noble, 2016). Thus, students become aware of their status and increase their self-esteem by following the courses of a faculty that has a favorable image, establishing a congruence between the image of the institution in which they are enrolled and their own image. Moreover, the social value is about the benefits derived from the interpersonal / group relations and mentioned in the context of friendship with other students and social interactions (Lai, et al., 2012; Sığırıcı, Gürdal, 2012).

Alves (2010) considers that the students' perception of value is determined by the general image of the institution and its perceived quality, and that the perceived value is decisive for students' satisfaction and loyalty. Starting from the characteristics of the services provided by higher education institutions, especially the high level of involvement and their importance in the current and future life of the students, the author took into consideration the following variables: i) students' future objectives; ii) the ratio between prices and quality; iii) comparison with alternatives to meet the student's need; iv) emotions.

Ng and Forbes (2009) show that the basic service provided by a university is the learning experience, which can be a transformative experience as the value of learning is created by education providers together with students. Students have two essential roles in creating the service output: they are productive resources, and they contribute to quality, satisfaction and value (Ng, Forbes, 2009). As a productive resource, a "richer resource" student, is a student that requires less effort to supervise, has greater independence and is more reliable. As a contributor to quality, satisfaction and value, the student can choose the level of effort he or she makes to learn.

Ng and Forbes (2009), highlight two important ideas for studying the perceived value of educational services. The first idea is that the learning experience is emerging, unstructured and uncertain, and the second idea is that the learning experience, like the experience of other services, includes hedonic, aesthetic and emotional dimensions. Student life is about the physical, psycho-social activities, the formation of values, taste, ideologies. This idea points to another important idea: the university can create the environment ("servicescape") that will lead to the increase of the perceived value of the educational services. The environment or servicescape refers to the physical facilities in which the basic service is delivered, which enables the socialization process. The creation of a highly perceived value of the basic service experience is possible by providing additional services: application and registration processes, tax payment procedures, university accommodation facilities, and accommodation conditions. These additional services are called "hygiene services" (Loveloch, Wirtz, 2003, in Ng, Forbes, 2009, p. 11) because they satisfy the basic needs of students. According to the above-mentioned authors, offering them does not increase satisfaction, but it prevents dissatisfaction.

## 2.2. Hypotheses development

From a marketing perspective, the influence of corporate image is recognized, although there is not much empirical evidence to support it (Sánchez-Fernández, et al., 2010).

The university image is a set of adjectival interpretations that subjects associate spontaneously with that university and to the various attributes of its offer (Doña-Toledo et al., 2017).

A higher education institution does not have an absolute image, this being influenced by the image of the other universities in a country. We appreciate that the image of a university is also influenced by the image of the country brand. The various categories of public elaborate judgments on the general image of a university based on the impressions, the stereotypes that they form regarding the strengths and vulnerabilities of the offer of that university. These images are formed under the influence of viral communication, the experiences of the target audience with the offer of the university and its marketing activities.

The relationship between the image of the university and the perceived value has not been given much attention in the marketing literature. However, in other areas, the organizational image is considered either an antecedent or a mediator of several constructs: perceived value, perceived quality, individual loyalty, or loyalty and satisfaction taken together (Sánchez-Fernández, et al., 2010).

In marketing literature several perspectives can be identified about the relationship between the image of a higher education institution and the perceived value of its offer.

Thus, several studies consider the image to be an antecedent of perceived value (Alves, 2011; Brown, Mazzarol, 2009; Sanchez-Fernandez et al., 2010). Other studies consider the image to be a consequence of value perception (Doña-Toledo et al., 2017; Duarte et al., 2012; Ivy, 2001). Various researches have concluded that the image is a component of the perceived value (Ledden et al., 2011), considering that there is a congruence between the image of the individuals attending the university and the institutional image of the respective institution (Sanchez-Fernández, Iniesta-Bonillo, 2007). In this article we adopted the perspective of the institutional image as an antecedent of the perceived value and consequently we formulated the hypothesis H<sub>1</sub>.

*H<sub>1</sub>: The faculty's image has a direct, positive and statistically significant influence on the perceived value of its offer.*

Ravald and Grönroos (1996) explored the concept of value from the perspective of relationship marketing and show that the perceived value includes the perception of the value of the relationships and commitments that are formed between customers and service providers.

Gwinner et al., (1998) identifies the following categories of relational benefits: (1) social benefits; (2) psychological benefits; (3) economic benefits; (4) customization benefits.

In the context of programs and services offered by universities, the duration of the student's relationship with the faculty influences the perceived value of the programs and services offered. This happens because of the increased trust between partners, the emotional investment made by the student, the increased identification with the faculty, the increased congruence between the goals pursued (offering and acquiring competences that will lead to a higher degree of employability). Also, the universities offer a unique social life, internships, the possibility of establishing relationships with the business environment during the studies, and the relations with the administrative staff become friendlier as a result of the learning process that the partners go through.

Sığırcı and Gürdal (2012) addressed the perceived value of marketing education from different perspectives. In our opinion, their findings can be extrapolated to higher education in general.

The cycle of education, the bachelor or master program, has a significant influence on the perception of the epistemic/academic value, emotional/internal value, image of marketing education, social value, image of marketing education institution, and monetary sacrifices. There is a difference in the perception of value between the alumni and the students that are still enrolled in university cycles. According to the level of their marketing education, the perception differs significantly especially based on these factors: functional/career value, non-monetary sacrifices, emotional/internal value, and social value (Sığircı and Gürdal, 2012). The authors show that there is a significant difference between the ones who have a marketing education for less than 6 months and more than 2 years based on social value perception. The latter perceive the education's social value higher than the first group.

The authors consider that the differences between the groups included in their study are given by "myopia", the bachelor students do not take into account the realities and do not have clear expectations regarding the labor market, although they take into account the different dimensions of the perceived value as well.

Lai et al. (2012) have conducted a research to see the effects of other demographic and social variables on students' value perceptions and overall satisfaction. However, no significant differences between the mean scores of the subgroups on each of demographic and social variable were found. Still, they show students become critical as they progress from the first year to the second, except for the functional value. In the fourth year, they report more positive affective responses towards what they receive and reveal higher satisfaction, except for social value and emotional value (Lai et al., 2012).

Starting from the above, we formulated hypothesis  $H_2$ .

*H<sub>2</sub>: The duration of the relationship with the faculty (the student's cycle) has a direct, positive and statistically significant influence on the perceived value of the offer.*

Customers are often unable to assess the technical quality of services even after they have been purchased due to their lack of knowledge and experience (Babic-Hodovic et al., 2017; Gronroos, 1984;). Consequently, functional quality often compensates for the inability to assess technical quality, consumers often overvaluing this dimension (Babic-Hodovic et al., 2017; Gronroos, 1990). Ravald and Grönroos (1996) show that the value of relationships influences the perceived value of the basic service.

Based on these results, we formulated the  $H_3$  hypothesis.

*H<sub>3</sub>: Relational value or functional value influences directly and positively the perception of the technical value of the offer.*

The cognitive perspective on perceived value has evolved towards a more holistic and experiential perspective that recognizes value in the context of customer experience as part of extended social systems (Grönroos, Voima, 2013). Understanding

the process of perceived value formation can also be facilitated by taking into account Helson's adaptation level theory (1964, in Kontek, 2010: 1). Helson emphasizes the importance of context effects in influencing perception. According to the author, the answer to a focal stimulus cannot be understood without considering the context and the residual stimuli. The "residual" stimulus refers to the experiences that individuals had in the past with the same stimuli and the formation of references. The actual focal point is judged, according to the author, in relation to the level of adaptation that is an average value of all contextual stimuli and residuals.

In their study on the perceived value of mobile services (m-service), Gummerus and Pihlstrom (2011) show that context affects the value perceived by customers, in this case students, because the assessment is based on the interaction between context, object and customers / students. The authors include among the contextual factors physical context and time context. Physical context refers to tangible conditions such as light, noise, temperature, agglomeration. The time context refers to the flexibility of carrying out some activities, but also to the easy access of the students, regardless of time and space, to information about the schedule, the scheduling of exams, the course support, the dean's program, the program of secretariats, etc. In this research we start from the hypothesis that the environment of the service and the social environment offered by the faculty are contextual stimuli from Helson's theory and influence the perception of the technical value of the faculty offer.

*H<sub>4</sub>: The value of the servicescape influences directly and positively the perception of the technical value of the offer.*

*H<sub>5</sub>: The perceived social value influences directly and positively the perceived technical value.*

Starting from the perceived value definitions, organizations can increase the perceived value either by offering extra benefits to customers or by reducing sacrifices. Research has shown that in the context of higher education, sacrifices are either of a monetary nature (registration taxes, tuition fees, travel expenses, accommodation, etc.) or take into account the personal effort of the students. It can be deduced that the student's status, with or without a tax (monetary sacrifice), influences the perception of the value of higher education. Kahneman and Tversky (1979) in Perspective theory, formulated the idea that gains, and losses are perceived in monetary units.

Thus, fee-paying students, who accept higher monetary sacrifice than students who do not pay study fees, perceive differently both the perceived global value and the dimensions of perceived value: social value and temporal value.

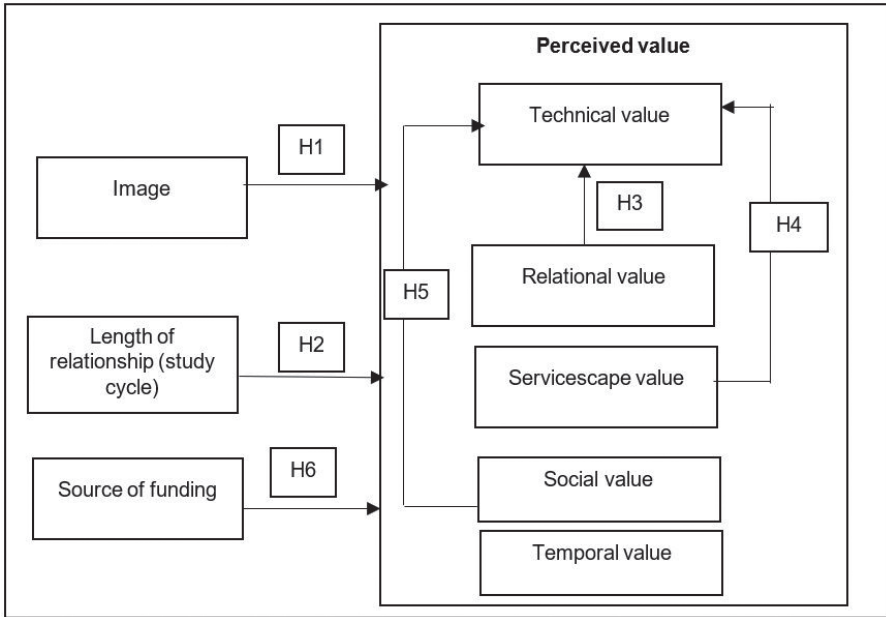
Lai et al. (2012) found that the total cost of education (fees and other expenses) influences the value perceived as a whole, but also its dimensions: functional value / academic value, perception of non-monetary sacrifices, emotional value, social value and perception of monetary sacrifices.

Starting from the above, we formulated the hypothesis  $H_6$ .

$H_6$ : There is a significant statistical link between the perceived value of the offer and the way it is financed.

The proposed research model is presented in Figure 1.

Figure 1.: The proposed research model



Source: Authors' own research.

### 3. METHODOLOGY

In this study, we aim to analyse the perception of the value of products and services offered by the largest faculty from the West University of Timișoara, Romania. In our study we used Brown's model (2006), Leblanc and Nguyen's scale (1999), and Alves' scale (2011). We also considered the influence of image on the perceived value of educational products / services, adopting the approaches proposed by Jiménez-Castillo et al. (2013), Brown and Mazzarol (2009), Brown (2006).

We used a five points Likert scale to measure the perceived value and the five points Osgood scale with bipolar statements to measure the faculty' image. Starting from the literature review, from the models and approaches mentioned above, we decomposed the perceived value of the university' offer in five dimensions: the technical value, the relational or functional value, the value of service environment, the

temporal value (economy, flexibility), and social value.

To measure the perceived value of educational products, we structured the total sample of 320 respondents into two sub-samples: a sample of students from the undergraduate cycle and a sample of students from the master's cycle. We found it useful to carry out the empirical research on two sub-samples because the length of customer-product relationship is different. In this way, we can get interesting conclusions about the evolution of perception over time. We also considered the influence of the method of financing the studies on the perceived value components because, as research has shown, the monetary sacrifice (cost fees, accommodation) is an important component of perceived value (Ledden et al., 2007).

The structure of the sample used in this research is presented in Table 2., in which we can observe the relative frequencies valid for the main profile variables.

**Table 2.:** Structure of the sample

Profile variables	Categories of profile variables	Valid relative frequencies
Study cycle	Bachelor	45.0%
	Master	55.0%
Source of funding	Unbudgeted	61.8%
	Budgeted	38.2%
	Personal wage	27.6%
Source of income	Family income	69.9%
	Scholarships from foundations	0.3%
	Other sources	1.3%
	Own business	0.6%
	Pension	0.3%

Source: Authors' own research.

## 4. RESULTS AND DISCUSSION

### 4.1. The properties of the scales

In order to carry out the statistical analysis of the data, the following steps were followed: (1) analyzing the reliability of the measurement scales used, (2) verifying the opportunity to perform the factorial analysis, (3) conducting the exploratory and confirmatory factor analysis and (4) testing the research hypotheses.

The reliability analysis of the measurement scales was performed using the Cronbach coefficient  $\alpha$ . According to George and Mallery (2003), a measurement scale is reliable if the Cronbach  $\alpha$  coefficient value is greater than 0.5. Also, the Cronbach coefficient of the measurement scale was determined if each item was deleted. If this coefficient determined by eliminating an item from the scale had a value



greater than the value of the Cronbach coefficient determined for the whole scale, the item was removed from further statistical analysis (because it reduces the overall reliability of the measurement scale).

The opportunity to perform the factorial analysis was verified using the Bartlett sphericity test and the Kaiser-Meyer-Olkin indicator (KMO). Factor analysis can be performed if the KMO indicator value is greater than 0.5 and the significance level of the Bartlett sphericity test is less than 0.05.

Factorial analysis for each dimension / construct was performed using principal component analysis. This method was used to decompose the entire variance of the variables.

The decision to keep the factors in the analysis was made based on the Kaiser criterion (eigenvalue > 1) and Cattell's turning point method (1966). Cattell's turning point method was used because sometimes the Kaiser criterion tends to overestimate the number of factors. Factor loadings were determined for each item within the factor analysis. Thus, only items that recorded factor loadings greater than 0.4 were retained in the subsequent statistical analysis (Field, 2009).

To test the research hypotheses, we used simple linear regression (in the case of the research hypotheses H<sub>1</sub>, H<sub>3</sub>, H<sub>4</sub> and H<sub>5</sub>) and the t-test for independent samples (in the case of the research hypotheses H<sub>2</sub>, H<sub>6</sub>). Statistical analysis of the data was performed using the software package SPSS (Statistical Package for the Social Sciences), version 23.

Table 3. presents the values of  $\alpha$  Cronbach coefficients, the values of the KMO indicator (Kaiser-Meyer-Olkin) and the significance level of the Bartlett sphericity test for each dimension / construct within the research model.

**Table 3.:** Scale properties and opportunities of achieving the factor analysis

Dimensions/Constructs	Initial C.A.	Intermediary C.A.	Final C.A.	KMO	Significance of Bartlett's test (p)
VT	0.903	-	0.908	0.931	0.000
VF	0.791	0.855	0.859	0.861	0.000
VSp	0.572	-	-	0.646	0.000
VTm	0.722	-	-	0.686	0.000
VS	0.814	-	-	0.810	0.000
VP	0.860	-	-	0.839	0.000
Im_Fac	0.806	-	0.822	0.853	0.000

Notes: C.A. - Cronbach's  $\alpha$ ; KMO - Kaiser-Meyer-Olkin; abbreviations used: VT - Technical value, VF - Functional Value, VSp - Servicescape value, VTm - Temporal Value, VS - Social value, VP - Perceived value, Im\_Fac - Faculty Image.

Source: Authors' own research.

The reliability of the measurement scales used was measured using the  $\alpha$  Cronbach coefficient. Table 3 shows that all measurement scales are reliable. The Cronbach coefficient values are greater than 0.5 (George and Mallery, 2003). Consequently, all the dimensions and constructs analyzed were retained in the following statistical analysis.

For all dimensions and constructs remaining in the analysis after the reliability step of the scales, the significance level of the Bartlett sphericity test is equal to 0.000 ( $<0.050$ ). Also, the KMO indicator values are higher than 0.500. In these conditions, we can say that factorial analysis can be performed, because there are statistically significant correlations between the items of each dimension / each construct and these correlations are strong enough.

Using the Kaiser criterion (eigenvalue  $>1$ ) and Cattell's turning point method, only one factor was extracted for the following dimensions: functional value, social value, temporal value and technical value. Only one factor was extracted in the case of the "Perceived Value" and "Faculty Image" constructs.

The extracted factor explains: 45.16% of the total variation in the case of the "Technical value" dimension, 44.77% of the entire variation in the case of the "Functional value" dimension, 54.61% of the entire variation in the case of the "Temporal value" dimension, 53 % of the total variation in the case of the "Social value" dimension, 37.05% of the total variation in the case of the "Faculty image" construct and 65% of the entire variation in the case of the "Perceived value" construct. In the case of the "Servicescape value" dimension, two factors were extracted. The first factor refers to the educational spaces of the faculty and includes the items VSp\_1 ("The spaces of the faculty are comfortable"), VSp\_4 ("The spaces of the faculty are well marked") and VSp\_5 ("The faculty has modern technologies (computer network, computer system, student management, presentation of results)"). The second factor relates to teaching and includes items VSp\_2 ("All educational activities are conducted in the same building") and VSp\_3 ("The effort to get from one course to another is great"). The two extracted factors explain 62.60% of the entire variation in the case of the "servicescape value" dimension. All items belonging to the "Functional value", "Servicescape value", "Temporal value" and "Social value" dimensions, and to the "Perceived value" and "Faculty image" constructs have values of factor loadings greater than 0.4 (Field, 2009). Taking into account these results, we can keep all the items in the analysis, because they are strongly correlated with the factor extracted in the case of each dimension / each construct. Item VT\_17 ("The exam results and other information that build my image are confidential") within the measurement scale of the dimension "Technical value" registered a factor load value equal to 0.394 ( $<0.4$ ). This item was removed from subsequent statistical analysis.

## 4.2. Hypotheses testing

The research hypotheses were tested using simple linear regression and the t-test for independent samples. The following indicators are presented in Table 4.: the value of the unstandardized regression coefficient (B), the calculated value of t (t-value) and the level of significance (p).

**Table 4.:** Testing the research hypotheses

Research hypotheses	B	T	P	Result
H <sub>1</sub> : The faculty's image has a direct, positive and statistically significant influence on the perceived value of its offer.	0.584	17.563	0.000	Accepted
H <sub>2</sub> : The perceived value of the offer differs significantly depending on the duration of their relationship with the faculty.	-	4.060	0.000	Accepted
H <sub>3</sub> : The perceived functional value has a direct, positive and significant influence on the perceived technical value of the offer.	0.742	18.364	0.000	Accepted
H <sub>4</sub> : The perceived value of the servicescape has a direct, positive and significant influence on the perceived technical value of the faculty offer.	0.383	7.044	0.000	Accepted
H <sub>5</sub> : The perceived social value has a direct, positive and significant influence on the perceived technical value.	0.708	19.721	0.000	Accepted
H <sub>6</sub> : The perceived value of the offer differs significantly depending on the way studies were financed.	-	-0.208	0.836	Rejected

Source: Authors' own research.

Analyzing the values in Table 4. we can see that the faculty image has a direct, positive and significant influence on the perceived value of its offer ( $B = 0.584$ ;  $t = 17.563$ ;  $p = 0.000 < 0.050$ ), the H<sub>1</sub> research hypothesis being accepted. The faculty image explains 49.2% of the variation of the perceived value of the offer ( $R^2 = 0.492$ ). The results obtained are similar to those obtained by other authors in their studies (Brown, Mazzarol, 2009; Sanchez-Fernandez et al., 2010; Alves, 2011).

The H<sub>2</sub> research hypothesis is supported ( $t = 4.060$ ,  $p = 0.000 < 0.050$ ). The perceived value of the faculty offer differs significantly depending on the cycle in which the students are enrolled or the duration of the relationship with the faculty. Students who attend the bachelor's degree courses (the average is 0.6113) perceive a higher value of the faculty offer compared to the students who attend the master's degree courses (the average is 0.3791).

The result is different from that obtained in other studies which show that a longer duration of the relationship can lead to the perception of a higher value of the educational offer, at least for certain dimensions of value (Lai, et al., 2012; Sığırıcı, Gürdal, 2012). In our opinion, it can be either the level of the expectations of the undergraduate and master's students, or the reduced maturity of the labor market that

does not yet make great differences between the graduates of the two cycles in terms of the employment opportunities offered.

After testing the  $H_4$  research hypothesis within the proposed conceptual model, we can observe that the value of the unstandardized coefficient of the regression function is 0.383, the calculated value of  $t$  equals 7.044, at a significance level of 0.000 ( $<0.050$ ). In view of these results, we can conclude that the perception regarding the value of the service environment (the servicescape value) has a direct, positive and significant influence on the perceived technical value (the  $H_4$  research hypothesis is supported).

The  $H_3$  and  $H_5$  research hypotheses are accepted. The perceived functional value ( $B = 0.742$ ;  $t = 18.364$ ;  $p = 0.000 < 0.050$ ) and the perceived social value ( $B = 0.708$ ;  $t = 19.721$ ;  $p = 0.000 < 0.050$ ) have a direct, positive and significant influence on the perceived technical value of offer.

The hypothesis that functional or relational perceived value influences technical value is confirmed in other authors' studies (Babic-Hodovic et al., 2017; Ravald, Grönroos, 1996).

The  $R$  value equals 0.717 (the case of the  $H_3$  research hypothesis) and 0.742 (the case of the  $H_5$  research hypothesis). Taking these results into account, we can say that the relationship between the perceived social value and the perceived technical value is stronger than the relationship between the perceived functional value and the same perceived technical value.

The  $H_6$  research hypothesis is rejected. The perceived value of the faculty offer ( $p = 0.836 > 0.050$ ) does not differ significantly from a statistical point of view depending on the way studies are financed (budgeted or non-budgeted). The result is different from that obtained by other authors (Lai et al., 2012) who show that the perception of the sacrifices associated with the educational offer (the cost dimension) influences the perceived value of higher education. The result is surprising from the Value Theory's point of view, according to which, the perception of higher costs, means a greater "pain" in the perceived value balance, which leads to a reduction in the net perceived value of the educational offer.

## 5. CONCLUSIONS

The downsize in student numbers and the intensification of competition, starting from the globalization of the educational offer, led to the awareness of the importance of the various dimensions of the modern holistic marketing: relational marketing (stakeholders, partners, network marketing), integrated marketing (integrating the marketing mix variables), internal marketing (own staff as a stakeholder and the relationship between departments), societal marketing (ethics, community, natural environment).

Starting from the peculiarities of the educational offer, managers should adopt a societal marketing orientation, which implies that, in addition to the needs of universities, faculties, they should consider stakeholder expectations, and those of society as a whole.

Knowing how the perceived value of the higher education institutions offer is formed as well as its influencing factors, is a constant concern for the marketing literature and universities in developed countries, but it is less present in the marketing literature and universities from emerging countries.

Following the quantitative research, carried out on a sample of 320 students from the bachelor's and master's degree, we found that the perceived value of the educational offer is made up of several dimensions that influence each other.

Thus, the perceived relational value (the quality of the support departments services, the quality of information, the quality of the interaction with the administrative and the teaching staff) affects the students perception of the quality of learning, the usefulness and the quality of the acquired knowledge, the employment opportunities after graduation, but also the appreciation of the ratio between what they give and what they receive. Also, the perceived value of the servicescape, the ambience in which education is offered, influences the judgments students make regarding the technical value of the educational offer. The social value, given either by the self-identity that the students create by graduating the courses of a higher education institution, or by the interaction and social life specific to the student life has influences on the (basic) technical value of the offer.

Our research also reveals that the institutional image positively influences the perceived value of the educational offer, the more favourable the image, the higher the perceived value. Contrary to other studies, we did not identify a significant statistical relationship between the way of financing the studies or the monetary sacrifice (financing from own income / family or from the budget) and the overall perceived value, respectively the social value and the temporal value of the educational offer.

Most universities have institutional marketing support departments that run integrated marketing communications campaigns, to differentiate and position themselves, to improve their image and perceived value. Offline and online integrated marketing communications campaigns target various university stakeholders: bachelor/ master/ doctorate candidates, highschool graduates, alumni, companies, foreign students, foreign partners, own staff.

Universities have to stay in touch with their graduates as a means to improve their image and perceived value as graduates continue to evaluate their university experience even after getting their diploma (Dona-Toleda et al., 2017). This relationship requires the frequent communication of interest (such as graduate opinion polls, university management indicators, or reports on the institution's corporate social responsibility) and the development of appropriate support structures such as

graduate clubs and associations, and online social networks to encourage the interaction between university and graduates.

According to Wilkins et al. (2015) the student's identification with the HE institution means greater levels of satisfaction, involvement and loyalty. Such identification brings with it greater involvement and commitment among students.

Specifically, identification leads students to involve themselves directly and organizationally with the university, and even to commit themselves to remaining loyal to the institution and thus make alumni donations in future (Freeland et al. 2015). Thus, universities should engage students in their activities and processes, to achieve better results in terms of perceived quality, perceived value and satisfaction, to project their future image. Some universities have branding strategies and tactics that aim to create the identity of their brand and increase their students', graduates', employees' need to identify with the university brand.

Increased interaction with students and alumni through digital and social platforms contributes the perceived relational value development. A large number of followers and likes for institutional accounts on Social Media has a positive impact on brand performance and student recruitment, especially when universities use social media to create engagement and answer quickly and helpfully to questions potential students might ask (Rutter et al., 2016).

Organizing marketing campaigns through events, where writers, diplomats, reputable researchers are invited, help develop the relational value and the perceived social value.

To improve their image and increase their perceived technical ("what is offered"), temporal and social value, it is also helpful for universities to use mass media and social media advertising campaigns, public relations campaigns that communicate the position occupied in international rankings or the acquisition of modern equipment.

In future research we aim to approach the formation of perceived value and its influencing factors by making comparisons between graduates of higher education institutions and their students. We also intend to consider other categories of stakeholders, teaching staff, managers, partners, the local community, but also to expand our research on the stakeholders of several universities. In future studies we intend to investigate, in addition to the antecedents of perceived value, its consequences on the satisfaction and loyalty of the university's stakeholders. Finally, we intend to identify stakeholder perceptions and attitudes towards issues such as social responsibility and societal marketing, sustainable development of universities by considering the variables of social, cultural, natural inclination towards environmental protection etc.

## REFERENCES

- Alves, Helena. "Perceived value index in higher education." *Innovative Marketing* 6 no2 (2010): 33-42
- Alves, Helena. "The measurement of perceived value in higher education: a unidimensional approach." *The Service Industries Journal* 31, no. 12 (2011): 1943-1960
- Babic-Hodovic, Vesna, Maja Arslanagic-Kalajdzic, and Amina Imsirpasic. "Perceived quality and corporate image in mobile services: the role of technical and functional quality." *South East European Journal of Economics and Business* 12, no. 1 (2017): 114-125
- Bigne, Enrique, Miguel A. Moliner, and Javier Sánchez. "Perceived quality and satisfaction in multiservice organisations: the case of Spanish public services." *Journal of services Marketing* 17, no. 4 (2003): 420-442
- Brown, Robert M., and Timothy William Mazzarol. "The importance of institutional image to student satisfaction and loyalty within higher education." *Higher Education* 58, no. 1 (2009): 81-95
- Brown, Robert Maxwell. "Drivers of student satisfaction and student loyalty in an Australian university setting." (2006).
- Cattell, Raymond Bernard. "The scree test for the number of factors." *Multivariate Behavioral Research* 1, no. 2 (1966): 245-276
- Cronin Jr, J. Joseph, and Steven A. Taylor. "Measuring service quality: a reexamination and extension." *Journal of Marketing* 56, no. 3 (1992): 55-68
- Devlin, James F. "Adding value to retail financial services." *Journal of Marketing Practice: Applied Marketing Science* 3, no. 4 (1997): 251-267
- Doña-Toledo, Luis, Teodoro Luque-Martínez, and Salvador Del Barrio-García. "Antecedents and consequences of university perceived value, according to graduates: The moderating role of Higher Education involvement." *International Review on Public and Nonprofit Marketing* 14, no. 4 (2017): 535-565
- Drule, Alexandra-Maria, Irimie Emil Popa, Razvan Nistor, and Alexandru Chis. "Quality of the teaching process and its factors of influence from the perspective of future business specialists." *Amfiteatru Economic Journal* 16, no. 37 (2014): 827-840
- Duarte, Paulo O., Mário B. Raposo, and Helena B. Alves. "Using a satisfaction index to compare students' satisfaction during and after higher education service consumption." *Tertiary Education and Management* 18, no. 1 (2012): 17-40
- Field, Andy. "Discovering statistics using SPSS:(and sex and drugs and rock'n'roll)." (2009).
- Abdullah, Firdaus. "The development of HEdPERF: a new measuring instrument of service quality for the higher education sector." *International Journal of Consumer Studies* 30, no. 6 (2006, a): 569-581
- Abdullah, Firdaus. "Measuring service quality in higher education: HEdPERF versus SERVPERF." *Marketing Intelligence & Planning* 24, no. 1 (2006, b): 31-47
- Freeland, Robert E., Kenneth I. Spenner, and Grace McCalmon. "I gave at the campus: Exploring student giving and its link to young alumni donations after graduation." *Nonprofit and Voluntary Sector Quarterly* 44, no. 4 (2015): 755-774
- George, Darren, and Paul Mallery. "SPSS for windows step by step: A simple guide and reference." (2003).

- Gronroos, Christian. "A service quality model and its marketing implications." *European Journal of Marketing* 18, no. 4 (1984): 36-44
- Gronroos, Christian. *Service management and marketing: Managing the moments of truth in service competition*. Lexington books, 1990.
- Grönroos, Christian, and Päivi Voima. "Critical service logic: making sense of value creation and co-creation." *Journal of the Academy of Marketing Science* 41, no. 2 (2013): 133-150
- Gwinner, Kevin P., Dwayne D. Gremler, and Mary Jo Bitner. "Relational benefits in services industries: the customer's perspective." *Journal of the Academy of Marketing Science* 26, no. 2 (1998): 101-114
- Gummerus, Johanna, and Minna Pihlström. "Context and mobile services' value-in-use." *Journal of Retailing and Consumer Services* 18, no. 6 (2011): 521-533
- Heinonen, Kristina. *Time and location as customer perceived value drivers*. Doctoral Dissertation, No 124, Hanken, Swedish School of Economics and Business Administration, Helsinki, 2004.
- Ivy, Jonathan. "Higher education institution image: a correspondence analysis approach." *International Journal of Educational Management* 15, no. 6 (2001): 276-282
- Jiménez-Castillo, David, Raquel Sánchez-Fernández, and M. Ángeles Iniesta-Bonillo. "Segmenting university graduates on the basis of perceived value, image and identification." *International Review on Public and Nonprofit Marketing* 10, no. 3 (2013): 235-252
- Judson, Kimberly M., and Steven A. Taylor. "Moving from marketization to marketing of higher education: The co-creation of value in higher education." *Higher Education Studies* 4, no. 1 (2014): 51-67
- Kahneman, Daniel, and Amos Tversky. "Prospect theory: An analysis of decision under risk." *Econometrica* 47, no. 2 (1979): 263-291
- KIREEVA, Natalia, Elena SLEPENKOVA, Tatyana SHIPUNOVA, and Roman ISKANDARYAN. "Competitiveness of higher education institutions and academic entrepreneurship." *Revista ESPACIOS* 39, no. 21 (2018): 1-15
- Kontek, Krzysztof. "Two Kinds of Adaptation, Two Kinds of Relativity." *Two Kinds of Relativity (September 19, 2010)* (2010).
- Kumar, Minu, and Charles H. Noble. "Beyond form and function: Why do consumers value product design?." *Journal of Business Research* 69, no. 2 (2016): 613-620
- Lai, Linda SL, W. M. To, Jane WY Lung, and T. M. Lai. "The perceived value of higher education: the voice of Chinese students." *Higher Education* 63, no. 3 (2012): 271-287
- Leblanc, Gaston, and Nha Nguyen. "Listening to the customer's voice: examining perceived service value among business college students." *International Journal of Educational Management* 13, no. 4 (1999): 187-198
- Ledden, Lesley, Stavros P. Kalafatis, and Alex Mathioudakis. "The idiosyncratic behaviour of service quality, value, satisfaction, and intention to recommend in higher education: An empirical examination." *Journal of Marketing Management* 27, no. 11-12 (2011): 1232-1260
- Ledden, Lesley, Stavros P. Kalafatis, and Phillip Samouel. "The relationship between personal values and perceived value of education." *Journal of Business Research* 60, no. 9 (2007): 965-974
- Ng, Irene CL, and Jeannie Forbes. "Education as service: The understanding of university experience through the service logic." *Journal of Marketing for Higher Education* 19, no. 1 (2009): 38-64



- Pereda, Maria, David Airey, and Marion Bennett. "Service quality in higher education: The experience of overseas students." *Journal of Hospitality, Leisure, Sport and Tourism Education* 6, no. 2 (2007): 55-67
- Ravald, Annika, and Christian Grönroos. "The value concept and relationship marketing." *European Journal of Marketing* 30, no. 2 (1996): 19-30
- Rutter, Richard, Stuart Roper, and Fiona Lettice. "Social media interaction, the university brand and recruitment performance." *Journal of Business Research*, 69, no. 8 (2016): 3096-3104
- Sánchez-Fernández, Raquel, and M. Ángeles Iniesta-Bonillo. "The concept of perceived value: a systematic review of the research." *Marketing Theory* 7, no. 4 (2007): 427-451
- Sanchez-Fernandez, Raquel, Iniesta-Bonillo, M., Angeles, Schlesinger-Diaz, W., and Pilar Torres-Rivera. "Analysis of the value creation in higher institutions: A relational perspective". *Theoretical and Applied Economics* 17, no. 10 (2010): 25-36
- Sığircı, Özge, and Sahavet Gürdal. "Looking at perceived value and education marketing from a different perspective: perceived value of marketing education." *International Journal of Social Sciences and Humanity Studies* 4, no. 2: 407-416
- Štimac, Helena, and Mirna Leko Šimić. "Competitiveness in higher education: A need for marketing orientation and service quality." *Economics & Sociology* 5, no. 2 (2012): 23-34
- Sweeney, Jillian C., and Geoffrey N. Soutar. "Consumer perceived value: The development of a multiple item scale." *Journal of Retailing* 77, no. 2 (2001): 203-220
- Takalo, Salim Karimi, Ali Reza Naser Sadr Abadi, Seyed Mahdi Vesal, Amir Mirzaei, and Khaled Nawaser. "Fuzzy Failure Analysis: A New Approach to Service Quality Analysis in Higher Education Institutions (Case Study: Vali-e-asr University of Rafsanjan- Iran)." *International Education Studies* 6, no. 9 (2013): 93-106
- Teeroovengadum, Viraiyan, T. J. Kamalanabhan, and Ashley Keshwar Seebaluck. "Measuring service quality in higher education." *Quality Assurance in Education* 24, no. 2 (2016): 244-258
- Teng, Chih-Ching, Jeou-Shyan Horng, and Tom Baum. "Academic perceptions of quality and quality assurance in undergraduate hospitality, tourism and leisure programmes: A comparison of UK and Taiwanese programmes." *Journal of Hospitality, Leisure, Sport & Tourism Education* 13 (2013): 233-243
- Wang, Yonggui, Hing Po Lo, Renyong Chi, and Yongheng Yang. "An integrated framework for customer value and customer-relationship-management performance: a customer-based perspective from China." *Managing Service Quality* 14, no. 2-3 (2004): 169-182
- Wegerif, Rupert. "New technology and the apparent failure of democracy: An educational response." *On Education. Journal for Research and Debate*, 1(1) (2019): 1-4
- Wilkins, Stephen, Muhammad Mohsin Butt, Daniel Kratochvil, and Melodena Stephens Balakrishnan. "The effects of social identification and organizational identification on student commitment, achievement and satisfaction in higher education." *Studies in higher education* 41, no. 12 (2016): 2232-2252
- Woodall, Tony. "Conceptualising 'value for the customer': an attributional, structural and dispositional analysis." *Academy of Marketing Science Review* 12, no. 1 (2003): 1-42

**Appendix 1.**The faculty' image scale (adapted from Jiménez -Castillo et al., 2013; Brown and Mazzarol, 2009; Brown, 2006).

(5-Point Semantic Differential Scale)

Items	1	2	3	4	5	
The faculty has a traditional approach						The faculty has a modern approach
The faculty has a bad reputation						The faculty has a good reputation
The faculty is not considered prestigious among other faculties of same profile						The faculty is considered prestigious among other faculties of same profile
The faculty offers an unfriendly environment						The faculty offers a friendly environment
Educational programs are oriented towards professional practice						Educational programs are research oriented
Study programs have a local approach						Study programs have an international orientation
Professors and their needs are at the centre of curriculum planning						Students and their needs are at the centre of curriculum planning
The teaching staff is not well prepared						The teaching staff is well prepared
The courses are mostly theoretical						The courses are mainly practical
The practical applications from the seminar are not relevant to the business practice						The practical applications from the seminar are relevant to the business practice
The probability of finding a job after graduation is reduced						The probability of finding a job after graduation is high

**Appendix 2.:** The perceived value scale (adapted from Alves, 2011; Leblanc and Nguyen, 1999)

<p>The perceived technical value scale („what is offered?“) (5- Point Likert Scale)</p> <p>Items</p> <p>The courses at this faculty are well structured The courses are well presented The courses are of long-term relevance The courses offered by the faculty are complex The fees required to complete a program are low I appreciate that the program followed is worth the investment The information provided at courses and seminars is constantly updated The costs of the program and the services offered are known from the beginning The information I get from the faculty courses stimulates my curiosity The faculty offers me the possibility to choose from a wide range of choices The faculty offers me the opportunity to choose a specialization suitable for my skills After classes I ask myself questions about what I found out The tasks to be performed for assessments / tests-exams are clear The knowledge offered by courses and seminars is practical I am confident that graduating this college will give me the opportunity to pursue a career The results and other information that build my image are confidential</p> <p>I am confident that I will receive what I expect from attending college</p>	<p>The functional or relational value scale („how is it offered?“) (5-Point Likert Scale)</p> <p>Items</p> <p>The teaching staff has a professional behavior Interactivity is encouraged in this college The support staff service is well set up I am offered the possibility to obtain individual professional counseling from the teaching staff</p> <p>Teaching staff behavior is distant The services provided by the faculty staff are prompt I appreciate the friendliness of the college staff Relations with faculty staff are comfortable The faculty staff strives to understand my needs</p> <p>The faculty website is constantly updated The necessary information is provided promptly The administrative information provided (schedule, fees, curricula, costs) is perishable In the selection of the specialization I need help from others In the selection of optional courses I need help from others</p>
<p>The perceived service environment or servicescape scale (5 -Point Likert Scale)</p> <p>Items</p> <p>The faculty spaces are comfortable All teaching activities take place in the same building The effort required to get from one course to another is great Faculty spaces are well signposted The faculty uses modern technologies (computer network, student management system, presentation of results)</p>	<p>The perceived temporal value scale (5- Point Likert Scale)</p> <p>Items</p> <p>This college gives me the opportunity to use my time efficiently The curriculum is flexible The waiting time for solving administrative problems is reduced The waiting time for receiving evaluations is acceptable</p>

The perceived social value scale (5 - Point Likert Scale)

Items

In my circle of friends, I am proud of the choice I made

I am confident that the faculty will help me gain a good social position

Student life is a positive experience

I like the social life of the faculty

The faculty puts us in touch with the business environment

I opted for this college because its profile is requested on the market



7  
VOLUME

1  
ISSUE

Journal DOI: 10.32728/ric  
ISSUE DOI: 10.32728/ric.2021.71

ISSN 1849-8795



9 771849 879003