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Exploring Brand Equity-Related Factors in Higher Education

Antra Roskosa[1] Dr. sc. Admin.; **Yulia Stukalina**[2] Dr. sc. Admin.
Riga Technical University, Latvia[1]; Transport and Telecommunication Institute, Latvia[2]
Antra.Roskosa@rtu.lv[1]; Stukalina.J@tsi.lv[2]

Abstract: Due to deepened marketing orientation of modern universities the role of branding in the field is constantly growing. In the higher education settings, developing a consistent, attractive and meaningful brand is crucial for maintaining a competitive advantage in the international marketplace in the agenda of commoditization of educational services. Brand equity in higher education – as brand value determined by students' experiences and perceptions – is related to the university's superiority in quality and reliability (i.e. first-class academic reputation). The aim of the paper was to assess different brand equity-related factors within the Customer-Based Brand Equity (CBBE) model as perceived by students. The research methods included analysis of theoretical sources and research papers, as well as a survey administered at Riga Technical University and Transport and Telecommunication Institute (University of Applied Sciences). A questionnaire based on the multi-dimensional Customer-Based Brand Equity model was developed. Structural equation modelling was used for performing confirmatory factor analysis of relationships between different brand equity-related factors. The results of the study indicate that the Performance factor has the highest loading for students, being of primary importance for the development of brand equity by creating positive brand associations and increasing the perceived value. The results of the research would contribute to better understanding of brand equity in higher education settings, which is important for improving the competitive position of a university brand.

Keywords: university, Customer-Based Brand Equity model, confirmatory factor analysis.

Introduction

The necessity for contemporary universities to address the market of educational services in terms of marketing can be explained by the emergence of high-performing higher education institutions and enlargement of the private education sector, which results in intensified competition in this field (Diaconu, Amalia, 2011). This also leads to competition-driven and consequently, marketized higher education (Elken, 2019).

In the agenda of strengthened competition in international tertiary education, the role of an efficient marketing strategy intended for building a strong university brand increases significantly (Roskosa, Stukalina, 2020; 2021). Strategic brand positioning has become obligatory for creating inspiring consumers' brand attitudes (Stukalina, 2019). The requirements of higher education stakeholders are constantly changing, so universities have to be more preoccupied with these expectations, resulting in enhanced marketing orientation (Hall, Witek, 2015).

In the higher education sector, developing a consistent, attractive and meaningful brand is crucial for gaining a competitive advantage in the uncertain global environment. The intensified competition in the international market of educational services forces university management to put more emphasis on branding as a promise of quality and reputation (Chapleo, 2015; Hemsley-Brown et al., 2016; Chapleo, Clark, 2016; Chapleo, O'Sullivan, 2017; Hemsley-Brown et al., 2016; Clark et al., 2020). The requirements of higher education stakeholders are constantly changing, so universities have to be more preoccupied with these expectations, resulting in enhanced marketing orientation (Hall, Witek, 2015; Stukalina, Zervina, 2019). This is closely associated with the university's capability to maximize unique value proposition.

Nowadays, brand equity is a burning topic in the management field (Aaker, 1991). Brand equity in higher education – as brand value determined by students' experiences and perceptions – is closely associated with the university's superiority in quality and reliability. One of the most popular brand-equity models is the Customer-Based Brand Equity (CBBE) model, the measuring instruments of which deal with consumers assessing a brand (Keller, 2001; 2008; 2009).

The model postulates that brand involves various brand building blocks – brand equity-related factors – categorized in four levels.

Thus, for exploring consumers' perceptions of a particular brand a holistic approach should be used (Roskosa, Stukalina, 2020), CBBE model being a suitable tool for evaluating a brand's status from multiple perspectives.

The study aims at assessing different brand equity-related factors within the Customer-Based Brand Equity (CBBE) model as perceived by university students.

Methodology

The following research questions were formulated: 1) What does the concept "brand equity" presuppose in higher education settings? 2) What elements does the Customer-Based Brand Equity (CBBE) model include? 3) How are different brand equity-related factors within the CBBE model perceived by university students?

The research methods include analysis of theoretical sources and research papers on the topic under discussion, as well as a survey administered at Riga Technical University and Transport and Telecommunication Institute (University of Applied Sciences).

The authors used a questionnaire built around the multidimensional-CBBE model. It was developed by Roskosa and Stukalina (2020) and then refined by Stukalina and Pavlyuk (2021). The questionnaire was circulated among the 2nd-year foreign and local students of Transport and Telecommunication Institute and Riga Technical University, representing the following study directions: IT, Business and Management, Transport and Logistics, Engineering. The total number of distributed questionnaires was 280, from which 251 were returned.

The questionnaire included twenty items grouped into five sections associated with the brand-building blocks aspects included in the Keller's CBBE model: Performance, Judgements, Imagery, Feelings and Resonance (Roskosa and Stukalina, 2020; Stukalina and Pavlyuk, 2021):

- *Performance*

q1. This brand is unique with regard to educational services and programmes in contrast to other universities in Latvia.
q2. This brand provides benefits that other brands cannot offer.
q3. This brand is capable with regard to responsiveness to the students' requirements and expectations.

- *Judgements*

q4. The brand provider is knowledgeable and helpful.
q5. The brand provider is creative (innovative).
q6. The brand provider takes into account my views and attitudes.

- *Imagery*

q7. The design features of this brand are good-looking and impressive.
q8. The people whom I respect recognize and are fond of the brand.
q9. Thinking of the brand can encourage positive emotions.
q10. Other students' opinion of the brand is rather positive than negative.

- *Feelings*

q11. The brand will give my life a meaning and value.
q12. The brand respects students' personal identity.
q13. The brand respects students' professional identity.
q14. The brand provides students with a sense of social approval.
q15. The brand provides students with a sense of self-respect.

- *Resonance*

q16. I feel a deep connection with other students using the brand.
q17. I do admire talking about the brand to others.
q18. I would actually miss the brand if I had to quit.
q19. I always try to stay informed about the brand.
q20. I would certainly endorse this brand to others.

For processing the obtained data structural equation modelling (Casanoves-Boix et al., 2016) was then used for performing confirmatory factor analysis of relationships amongst brand equity-related factors. The brand model's "goodness-of-fit" was assessed employing four approaches: chi-squared statistic, RMSEA (root mean square error of approximation), TLI (Tucker-Lewis index), CFI (comparative fit index): RMSEA < 0.08, TLI > 0.9, CFI > 0.9.

Results and Discussion

Literature review

Today, European universities are made to transform to organizations acting as businesses in an extremely competitive higher education market (Mampaey, Huisman, 2016; Mampaey, 2018; Mampaey et al., 2020). Therefore, the market-oriented approach in tertiary education is widely accepted; the analysis of up-to-date trends in the global higher education market has become an essential part of the university's marketing strategy development (Stensaker, 2007; Hemsley-Brown et al., 2016; Mihajlovic et al., 2016; Białoń, 2015; Stukalina, 2019).

Recently, branding has been employed as a "differentiation strategy" for tertiary institutions (Pinar et al., 2020). Building a healthy brand has become a priority of any organization (Keller, 2001); for a modern higher education institution, it is vital to develop a robust brand confirming its trustworthiness in the transnational education market (Kotler, Keller, 2016). In general, a university's brand represents the total of feelings and perceptions that all higher education stakeholders associate with this university (Ali-Choudhury et al., 2009), the focus being put on students as primary consumers of educational services (Roskosa and Stukalina, 2020).

Currently, the concept of brand equity in the tertiary education area has gained increased significant consideration from researchers. The existing research on brand equity shows that a brand can be conceptualized by using some dimensions; brand equity can be considered as a multi-dimensional concept (De Chernatony, McDonald, 1998). Consequently, there are various definitions of brand equity. Aaker (1991) terms brand equity as a number of assets including "name awareness, loyal customers, perceived quality and associations" related to the brand and adding value to the service/product. Keller (1993) terms brand equity as the influence of the brand on the consumer's response to the marketing activities linked to a particular service/product. Some definitions describe brand equity from a financial perspective – assets being of value to the organization due to its capacity to generate future revenues (De Chernatony and McDonald, 1998; Kim et al., 2003).

In view of the above, brand building blocks can be manifested in diverse models and patterns (Kotler, Keller, 2012). The model used in this paper is the one created by Keller (2001; 2003; 2009; 2013) – the Customer-Based Brand Equity (CBBE) model. The brand "meaning" dimension is exemplified by brand imagery and performance; the "responses" dimension is embodied by consumer feelings and judgements; the "relationships" dimension is associated with consumer brand resonance. In this model, the branding aspects hierarchy is reflected; all aspects are inter-related, brand resonance representing the highest level – "harmonious" relationships established between the brand and consumers (Kuhn et al., 2008). The CBBE model includes both emotional and rational elements (Keller, 2001); so it is wide-ranging and is supposed to be applicable to various contexts and settings. The hierarchy of brand equity-related factors within the CBBE model is demonstrated in Figure 1.

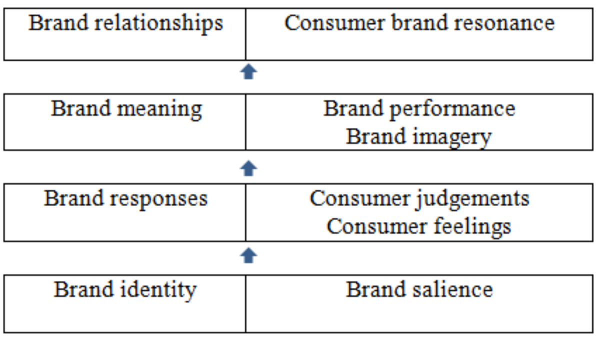

Figure 1. The hierarchy of brand equity-related factors within the CBBE model (Keller, 2001).

The research performed by Roskosa and Stukalina (2020), and Stukalina and Pavlyuk (2021) proved that the CBBE model – as key conceptual tool – could be successfully applied in the frame of a holistic approach to understanding a university's brand for developing and improving a marketing strategy aimed at accomplishing a competitive advantage. With the CBBE model, this study attempts to assess and prioritize different brand equity-related factors as perceived by university students, focusing on brand responses, meaning and relationships.

Empirical research results

For performing confirmatory factor analysis of relationships among brand equity-related factors, structural equation modelling (Casanoves-Boix et al., 2016) was applied. Summary of the model's fit indices is given in Table 1.

Table 1

Models' fit summary (source: based on the acquired data)

Colour	Complete sample
Chi-Square statistic (p-value)	239.899
RMSEA	(0.0001)
CFI	0.043
TLI	0.949

The chi-squared test shows statistical validity of the factor structure (the null hypothesis about absence of factor loadings is rejected). RMSEA, TLI, and CLI values show borderline performance of the structural model for the samples: RMSEA values are smaller than the good threshold (0.05). CFI and TLI values approximate the acceptable 0.9 threshold, and are close to 0.95. Summarising the model fit statistics, it may be concluded that the model adequately satisfies the fit requirements, and may be utilized for subsequent examination of factor loadings.

Figure 2 signifies the structural equation model components with standardised factor loading for the pooled sample.

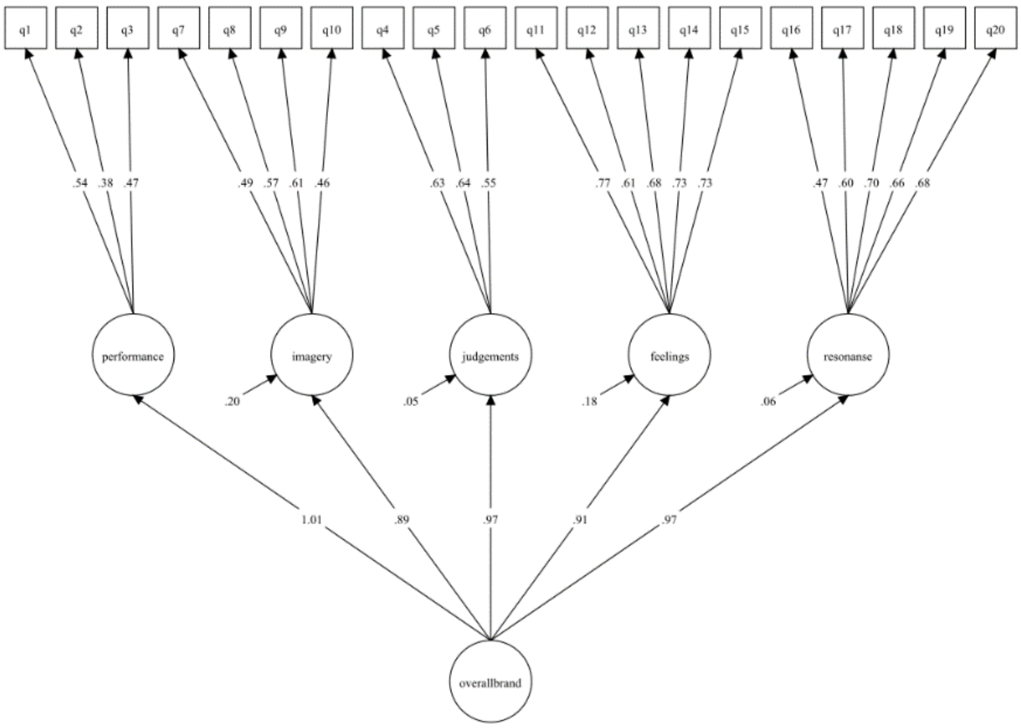

Figure 2. Resulting structural equation model (source: authors' construction based on the acquired data)

The structure of factors is study design-based, and performance of the model fit confirms the structure. The five brand equity-related factors of the secondary dimension considerably load to the brand equity: the lowest standardised loading (0.89) is recognized for the Imagery factor, whereas loadings of other factors surpass 0.9. First-level factors loadings are noteworthy for the input variables (i.e. questions) too and in the main, evenly distributed.

Standardised factor loadings for the pooled sample are also shown in Table 2.

Table 2

Model's factor loadings (source: based on the acquired data)

Item	**Standardised factor loadings (standard errors are given in brackets)**
Performance	
q1	0.543 (0.084)
q2	0.376 (0.081)
q3	0.470 (0.081)
Judgements	
q4	0.631 (0.068)
q5	0.643 (0.063)
q6	0.554 (0.062)
Imagery	
q7	0.493 (0.077)
q8	0.573 (0.066)
q9	0.606 (0.068)
q10	0.464 (0.077)
Feelings	
q11	0.768 (0.048)
q12	0.611 (0.062)
q13	0.679 (0.061)
q14	0.732 (0.048)
q15	0.731 (0.054)
Resonance	
q16	0.473 (0.065)
q17	0.603 (0.057)
q18	0.703 (0.053)
q19	0.659 (0.053)
q20	0.681 (0.049)
Brand equity (total)	
Performance	1.011 (0.101)
Imagery	0.891 (0.061)
Judgements	0.974 (0.059)
Feelings	0.907 (0.038)
Resonance	0.968 (0.036)

Discussion

The research performed in the paper has provided answers to the research questions, allowing the authors to identify main elements of the Customer-Based Brand Equity (CBBE) model in educational settings, as well as those brand equity-related factors, which have a highest priority for university students.

Key findings based on the research results can be summarized as follows:

- The Performance factor has the highest loading for students.
- For the Performance factor, q3 – *This brand is capable with regard to responsiveness to the students' requirements and expectations* – has the highest loading for students.
- In descending order (in order of priority for students), the following factors are arranged: the Judgements factor, Resonance factor, Feelings factor, with the Imagery factor having the lowest loading for students in the resulting model.
- For the Judgements factor, q5 – *The providers of this brand are creative (innovative)* – has the highest loading for students.
- For the Resonance factor, q18 – *I would actually miss this brand if I had to quit* – has highest loading for local students.
- For the Feelings factor, q11 – *This brand will give my life a meaning and value* – has highest for students.
- For the Imagery factor, q9 – *Thinking of the brand can encourage positive emotions* – has highest loading for students.

Conclusions

In the paper, the Customer-Based Brand Equity (CBBE) model was utilized to disclose how various brand equity-related factors were perceived by university students. The estimated structural equation model, which was created based on the collected data, proves that the university brand equity can be represented as a combination of these factors.

The following conclusions can be made on the basis of the study.

- Statistical analysis of the data obtained through the survey carried out in two higher education institutions revealed the significance of different factors included in the model (in order of priority for students): Performance, Judgments, Resonance, Feelings and Imagery.
- The results of the study indicate that the Performance factor has the highest loading for students, i.e. has the primary importance for developing brand equity by creating brand associations and increasing the perceived value.
- The survey also discovered some specific aspects associated with the above brand equity factors:
  - the highest importance of responsiveness to the students' needs and expectations for the Performance factor;
  - the highest importance of creativity and innovation for the Judgements factor;
  - the highest importance of sticking around the brand for the Resonance factor;
  - the highest importance of giving the students' life a meaning and value for Feelings factor;
  - the highest importance of encouraging positive emotions for the Imagery factor.

The results of the research would contribute to better understanding of brand equity in higher education settings, which is important for improving the competitive position of a university brand in the today's uncertain environment.

The study has the following limitations. It was conducted within two technical universities, so the results may signify a few factors, which are not descriptive of all higher education institutions. Another limitation of the research is its geographical coverage – Latvia. Besides, the study did not involve other higher education stakeholders: school graduates and their parents, alumni, etc. So, further research with a bigger research base confirming the relevancy of the CBBE model in numerous settings is recommended.

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