# Estimating a University Brand in the New Economic Conditions: Concept, Principles, Technique

**Vadim Yu Pashkus[1]\*, Natalie A. Pashkus[2], Tatiana S. Krasnikova[3], Asadula B. Asadulaev[4]**

[1]Department of Economic Theory and Economic Policy, St. Petersburg State University, Universitetskaya emb., 7-9, St. Petersburg 199034, Russia, [2]Department of Applied Economics, Herzen State Pedagogical University, Kazanskaya (Plekhanova) st., 6, St. Petersburg 191186, Russia, [3]Scientific Research Ltd. per. Nikoloyamskiy, 3a, room 411, Moscow 109004, Russia, [4]Department of Economic Theory and Economic Policy, St. Petersburg State University, Universitetskaya emb., 7-9, St. Petersburg 199034, Russia. \*Email: bulina.anna@gmail.com

**ABSTRACT**

This article presents a technique for estimating a university's brand in the new economic conditions. Branding gives a possibility to create tangible, intangible and imagined differences among institutions of higher education based on resource approach in strategic management. The forming of image, reputation and brand is based on key factors of success and core competence. Well-developed brand of educational institution is a basis for the loyalty of its customers, sustainable international connections, guaranteed level of enrollment and competition and ensures the influx of additional financial resources. In the new economic conditions image and brand of public sector institutions are closely connected with the development of the human capital of these institutions, therefore a lack of motivation can have a negative impact on the public image. Monitoring of brand strength allows taking early measures on the complex development of the public sector institutions' resource potential in order to increase its competitiveness on the basis of image and brand. The presented technique uses the integration of known methodologies: The Boston Consulting Group, Kevin Keller and Young and Rubicam.

**Keywords:** Public Sector, Brand, Brand Evaluation, Keller Method, Young and Rubicam Method, Bcg Matrix, Brand Value, Brand Advantage
**JEL Classifications:** I21, M37

## 1. INTRODUCTION

Typically, brand valuation methodology does not apply to the public sector (Aaker, 2012; Keller, 2012). The reason is that quantitative factors in the public sector are difficult to distinguish, and qualitative measures cannot always be calculated (Aaker and Joachimsthaler, 2000; Vertakova et al., 2013). Moreover, due to the complex nature of public sector institutions brands, it is much more difficult to identify attitude to public sector institutions than it is with brands more understandable for consumers (Schroeder, 2015; Heding et al., 2009; Aaker, 2014).

Whereas the New Economy implies that competition is becoming more and more severe (Martin, 1993), constant and rapid innovation process is becoming not only sufficient but crucial to success. "On the one hand, in the New Economy pioneer companies gain even more than ever. On the other hand, the leader gets everything" (Nordstrem and Ridderstrale, 2002).

Thus, in new economic conditions brand valuation in the public sector is important because of the fact that positive image of a non-profit organization and efforts to build its brand may contribute to a significant increase in the competitiveness of public sector institutions.

This article offers an almost all-purpose technique, but because of the specifics of the various segments of the public sector, it requires a specification when applied to different types of services and organizations. This article offers a nearly all-purpose technique, provided that it is given a certain specification when applied to

different services and organizations due to the specifics of various public sector segments.

## 2. TECHNIQUE FOR ESTIMATING A UNIVERSITY BRAND VALUE

Our paper presents a new method of estimating the brand's strength, based on matrix algorithms and three well-known approaches to the brand evaluation, adapted to activities of non-profit institutions. The technique considers the dynamics of quantitative indicators in higher education institutions, such as competition or score for admission, the number of students enrolled on a fee basis, the price paid for educational services, the dynamics of price growth, the availability of state-funded places. The strength of the university brand can also be judged by its ability to raise additional cash flows (not directly related to the income from off-budget educational activities), but in the Russian practice these figures are determined, first of all, according to the level of development of university's informal networks, which are only partially dependent on brand development (Starobinskaya et al., 2009; Bonchukova and Starobinskaya, 2013). Also, these figures may be determined as opportunism and information asymmetry (Dengov and Tulyakova, 2015). Therefore, classical methods of assessing the value of brand for universities are difficult to apply (Antic et al., 2008; Dumitriu, 2013). Moreover, the direct comparison of additional financial flow volumes from different universities in the analysis of their brand strength is not justified (Bonchukova and Starobinskaya, 2013; Sinclair and Keller, 2014). Consequently, these measures should be incorporated in the qualitative analysis of the brand.

The proposed method involves assessment of qualitative information on university activities to promote the brand (brands as separate areas of the training institution can move independently of each other) and recover acceptance of the brand (brands) by consumers. The high-quality brands of high school assessment can be achieved through the integration of well-known techniques: The Boston Consulting Group (BCG) (Lowy and Hood, 2010), Keller and Young and Rubicam or Y and R (Na et al., 1999). To choose the basis of these three methods we regard to the fact that there is a total discrepancy of approaches while the above mentioned approaches have no obvious contradictions in the basic methodological principles and may well complement each other.

Thus, the author's method of estimating the brand strength lies in the fact that the classic brand valuation, calculated using BCG matrix (including its adaptation indicators for university activities), together with the emotional evaluation of brand strength by Keller, are used to calculate the integral of the market power of the brand. The integration of classical assessments is carried out, allowing for the basic procedures. An adaptation of BCG matrix is necessary in view of the fact that the classic version operates solely with financial performance (profit, risk, etc.). Whereas, even when adapting its performance to the market of educational services, its key features remain; therefore, the disadvantages of this technique can be transferred into a new evaluation unit.

A key feature of this method is the overestimation of the brand, which promotes the growth of the error that would exist in the absence of anti-competition – in a market with less competition, or in the evaluation of brand clear leader of the market (the only institution with the relevant provisions dominant). Keller estimation gives some idea of the understated brand strength, because it takes into account the emotional and sensual performance to a large extent, responsive to a targeted resistance of the competition. Thus, the introduction of the total index is quite reasonable, since it averages the scores obtained by the above mentioned modified methods.

The use of weights in the construction of an integrated assessment of brand strength is justified by the need for correct indices calculated by classical methods. The choice of specific weights is carried by the author on the basis of qualitative methods of ranking. Due to some overstatement of the market power of the brand by the method of BCG and some emotional component of brand strength by Keller a priority in favor of the emotional evaluation (weight 0.6) against the valuation (weight 0.4) was made. The priority of the emotional components of the defined characteristics in the Russian market in general and the education market in particular is highlighted in Bonchukova et al. (2014).

The use of the same Y and R methodology in the structure of the author's method allows taking into account assessment of wild multi-dimensional brand. This technique allows including into analysis the characteristics of the brand along with the assessment of brand strength also assessing the merits of the brand, which is a reflection of the perceived relevance and market position (including competitors and stakeholders). This paper is expected to integrate these two approaches. Implying the Y and R procedure gives an opportunity not only to assess the quantitative characteristic of the brand, but also to identify a brand belonging to a particular group (successful or lagging), and create a strategy for the brand development in the educational services market (Keller, 2012).

Author's method of estimating the brand strength will be illustrated by the example of two universities for a horizontal educational profile belonging to different competitive positions in accordance with the previous positioning of universities and assessment of competitiveness.

Thus, we carry out estimation based on the author's methods of university brand evaluation. For this purpose, the technique of BCG calculations of three main indicators firs is performed:
- M1 (sell more) – An indicator defines the brand's contribution to the dynamic growth of the reception and the financial situation of the institution in relation to the same non-branded high school (high school with an underdeveloped brand). This index allows to estimate how much a brand improves the financial situation of the university and its enrollments.
- M2 (upsell) – An indicator defines the brand's contribution to increasing the profitability of its activities in relation to the specific expenses for the maintenance of the brand. This index allows us to evaluate how the brand can get a larger increase in financial indicators and indicators of admission per student

- M3 (more than prospects) – It indicates whether it is possible to increase the brand's sphere of influence (brand extension) and the extension of its target segment in the medium term, this index evaluates how to rise further financial flows and intake levels from the operation of the brand in the future.

The indicator M1 has three main components. The first is the pushing force of the brand (TSA), which is calculated as the ratio of the integral characteristic of branded high school to the level of the integral characteristics of the university standard. To improve the quality of estimation by the author of the weighted values the growth of TSC during analyzed period of time should be averaged. Thus, it is possible to avoid accidental variation index or variation caused by pattern by short-term changes in demand, but the objective is not dependent on the actual strength of the brand changes in demand (e.g. fluctuations in demand caused by financial crisis).

The second component of the index M1 is the pulling power of the brand (TST), which is estimated as the ratio of growth performance of the university in the last period of the analyzed branded high school relative to a standard high school, which is not caused by an extra growth in the brand attractiveness to the consumer. Here it is advisable to take growth rates for the TC over a certain period to avoid any sudden jumps in performance. Then the average increase will give a more accurate value of the weighted M1 components.

The third component of the M1 index is the pulling power of the brand (TSbr.), which is measured as the difference in the change of the integral characteristics of the brand and the standard of the university for a certain period of time. For this indicator, it is also desirable to take the average growth over a certain period to avoid sharp jumps in the index.

Due to the fact that the first two components are relative indicators, and the last part is an absolute indicator M1 calculation is expedient to use a relative pulling force of the brand (OSbr.)

The second indicator to assess the brand value M2 includes the estimate of higher margin brands in the standard high school. This figure includes a brand premium (BP) and the unit cost of the brand creation and brand promotion (UCB).

Unit costs are calculated as the brand's total costs for the creation, development, positioning and brand promotion per student.

The third indicator of brand strength assessment determines the strategic competitiveness of the brand. This indicator measures the possibility of increasing the brand sphere of influence and expands its target segment in the medium term, taking into account different risk categories. It allows to estimate how much could enrollments and additional cash flow from the operation of the university brand be increased in the future.

## 3. RESULTS

The estimated parameters of brand's strategic competitiveness may be divided as follows:

1. Parameters of the target segment, which is its quantitative dynamics and dynamics of willingness to consume educational services of the institution
2. Efficacy parameters positioning, this is the proportion ratio of buyers informed about this brand and its positioning idea to the total mass of brand consumers The indicator is assessed in due course
3. Risks associated with the brand.
   For the calculation of strategic competitiveness certain factors are calculated as follows:
4. Dynamics of the target segment (DS)
5. Dynamics of consumer awareness of the target segment (DI)
6. Dynamics of the effectiveness of brand positioning (DE)
7. Risks are defined by the university brand on the basis of market research and their own information market. Risk Categories (each value quantified usually no more than 5%) are rated once a year. In a 2-year planning horizon risks are multiplied by two.
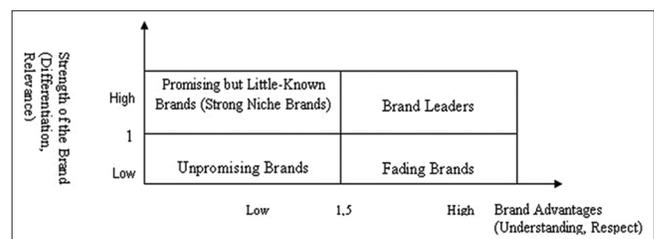
There are three main types of risks: Risks associated with activities of competitors (R1), risk management of the university system and risks associated with the activities of the management's image (brand) of the institute, in particular, risks associated with errors in the construction and implementation of a brand management system (market research, promotional campaigns, etc.) – (R2) and risks associated with consumer preferences change – (R3).

The calculation of quality indicators is possible by constructing a matrix of brand power. However, the matrix of brand power can be built on both quantitative and qualitative data. Quantitative data can be obtained by the above modified method of the BCG. Projecting indicators adjusted to quantitative estimates can be obtained using one of the valuation options by the method of Keller. This technique can be used to obtain qualitative data preparation due to the fact that it has a distinct advantage in their group of techniques which are based on evaluation indicators simplicity and usability.

Evaluation of selected universities, belonging to different classes and different segments of the market, has been carried out. Necessary specifications have been provided by a combination of the BCG techniques with elements of Keller and Y and R techniques, including the construction of the power brand matrix. Therefore, we can offer a quality resulting diagram of brand effectiveness.

For the considered brands a power brand matrix has been constructed (Figure 1):

**Figure 1:** Brand power matrix – modified Young and Rubicam procedure

On the axis "Brand Advantages" border areas of the matrix are set to 1.5, since 1 is the normal level of this index, and in the area of leadership or fading, but highly regarded brands, brands need to get with more than normal levels. Along the axis of the brand strength the brand promise is defined as below and above the norm.

To construct a matrix of brand power we supplement a set of ten quality characteristics by Keller indicators determine the merits and strength of the brand. Such a modification of the methodology allows including in the analysis a number of important and previously unreported qualitative indicators. Characteristics of the brand merit are:
1. Continued relevance
2. Consumer perception of the intrinsic value of university's education services
3. Proper positioning
4. Stability of the brand
5. Proper understanding of the brand and its identity
6. Perceived popularity brand
7. Effectiveness of integrated marketing communications
8. Commitment
9. Effectiveness of brand development strategy
10. Brand loyalty.

Indicators of brand strength, being a correction of the quantitative assessment of estimates which are derived with the technique of the BCG, are:
1. Meeting consumer demands (brand value)
2. Role and influence of the professional direction for the university brand
3. Using marketing communications of all types
4. Adequacy of management
5. Supporting branding conducting research
6. Monitoring sources of brand equity and university's resource potential
7. Degree of brand differentiation
8. Investment attractiveness of the brand
9. Valence of brand attitude (how well the brand delivers its promises)
10. Brand leverage, i.e., the ability to extend the brand through new types of educational programs and professional areas, new markets and new qualities.

Ratings are given on a scale in the range of 0-20 points for each estimated parameter. For scales used by the author the proposed method is different from the Keller's methods, as the resulting figures should be set to between 0 and 2, where 1 corresponds to normal indicator.

To get baseline characteristics of the structure of the brand power matrix totals are transformed into relative units and the result is divided by 100. It is recognized that the quantitative measure of brand strength Ms is an amendment to the qualitative assessment obtained using the Keller modification. Therefore, a cumulative strength of the brand is calculated as the total value of two measures of brand strength with a weight determining the evaluation importance of each of them in the university activities.

Preparation of final assessments of brand strength requires a definition of preferences in qualitative and quantitative indicators in the final indicator of brand strength. Procedures for qualitative ranking, as already noted above, have allowed assigning an emotional assessment of Keller weight 0.6 on measuring the value for BCG (weight 0.4).

## 4. DISCUSSION

We performed a calculation of force of brands of economic and administrative directions of preparation in St. Petersburg State University and the Herzen State Pedagogical University. The estimation is produced under average characteristics of a brand of one professional direction of these high schools. For an estimation demanded enough professional direction – economy and management has been chosen. Thereby, educational programs of several faculties of these high schools were analyzed. For and the Herzen State Pedagogical University is a faculty of economy and management faculty, and for St. Petersburg State University – economic faculty and the management higher school. At calculation the relative characteristics constructed according to principles resulted above were used. Indicators settled payments separately on the basic educational programs and magistracy programs, and further were jointly considered at construction of integrated characteristics. At their joint accounting the priority of programs of a bachelor degree (with weight 0.6 against 0.4) as the brand influences a choice of the basic programs of training more strongly became.

## 5. CONCLUSION

The Russian system of higher education had a rigid gradation of institutions based on their image more than on indicators, and transition from one position to another is complicated. Most of the institutions have no experience and necessary skills to form a brand that could provide them image promotion. On the other hand, the risks of the Russian institutions of higher education are high enough, as the developed system of acceptance through Unified State Examination and inflated prices of paid educational services promote leaving of a certain share of potential consumers from the Russian system of higher education for the benefit of foreign universities. This share can start to grow as the percentage of people acquiring foreign languages rises steadily; hence, language ceases to be a real obstacle for the Russian youth on way to training in foreign schools. Moreover, the prestige of foreign education is high enough; it can negatively affect the competitiveness of the Russian institutions which are not paying enough attention to image.

There was some easing of a tendency of outflow of the Russian consumers of educational services to benefit of foreign high schools caused by a world financial crisis, which promotes a rise in prices for educational services in the European and American high schools. But till now the price for educational services of the Russian institutions of higher education considerably overtook the foreign. Great Britain before recent time was the unique country in which higher education on the average was more expensive

than in Russia. Probably in the following years, this situation will change in response to the serious European crisis and plans to cut the state expenditure of the countries of Europe and the USA. But even the specified restrictions do not minimize the threat of a competition from foreign high schools. Russian incomes grow slower than European ones, without looking at all at absence of a crisis. The power of "Economics and Management" program brands has been calculated for St. Petersburg State University and Herzen State Pedagogical University.

In accordance with the proposed methodology for the professional direction of the brand, "Economics and Management" Herzen State Pedagogical University has been classified as a promising but little-known. This brand can be also classified as a niche brand, which is confirmed by previous studies of resource potential and by the position development of the university.

St. Petersburg State University "Economics and Management" program brand has been classified as a brand leader, which is also confirmed by previous studies of resource potential and development position of the university. Therefore, the proposed method has shown its value in use for the sphere of higher education.

## REFERENCES

Aaker, D. (2012), Strategic Market Management. Hoboken: Wiley.

Aaker, D. (2014), Aaker on Branding: 20 Principles That Drive Success. New York: Morgan James Publishing.

Aaker, D.A., Joachimsthaler, V. (2000), Brand Leadership: The Next Level of the Brand Revolution. New York: Free Press.

Antic, T., Antic L., Pancić, M. (2008), Brand valuation. Interdisciplinary Management Research, 4, 199-214.

Bonchukova, D.A., Starobinskaya, N.M. (2013), Strategic marketing and competitiveness of high school in the age of globalization. Globalizacia a jej socialno-ekonomicke dosledky'13. Recenzovany Zbornik z medzinarodnej Vedeckej Konferencie. Zilinskej Univerzity v Ziline. p40-47.

Bonchukova, D.A., Starobinskaya, N.M. (2013), Strategic marketing and competitiveness of high school. Marketing MBA. Journal Marketing Management Firms, 2, 38-56.

Bonchukova, D.A., Ermakov, Y.V., Chesnokova, M.S. (2014), Higher education institution brand as a factor of its competitiveness. Marketing MBA. Journal Marketing Management Firms, 2, 7-24.

Dengov, V.V., Tulyakova, I.E. (2015), Credit risk analysis for the telecommunication companies of Russia: Problem statement and selection of indicators. SGEM 2015 International Multidisciplinary Scientific Conference on Social Sciences and Arts. – Vol. II: Finance, Economics and Tourism. Sofia, Bulgaria: STEF92 Technology Ltd. p131-138.

Dumitriu, R. (2013), Brand policy instruments: Contributions to brandequity. Annals of University of Craiova – Economic Sciences Series, 1(41), 166-173.

Heding, T., Knudtzen, C.F., Bjerre, M. (2009), Brand management: Research, Theory and Practice. Abingdon, Oxon: Routledge.

Keller, K.L. (2012), Economic and behavioral perspectives on brand extension. Marketing Science, 31, 772-775.

Keller, K.L. (2012), Strategic Brand Management. Building, Measuring, and Managing Brand Equity. London: Prentice Hall.

Lowy, A., Hood, P. (2010), The Power of the 2 x 2 Matrix: Using 2 x 2 Thinking to Solve Business Problems and Make Better Decisions. San Francisco: Jossey-Bass.

Martin, R. (1993), Changing the mind of the corporation. Harvard Business Review, 71(6), 81-96.

Na, W.B., Marshall, R., Keller, K.L. (1999), Measuring brand power: Validating a model for optimizing brand equity. Journal of Product and Brand Management, 8(3), 170-182.

Nordstrem, K.A., Ridderstrale, I. (2002), Funky Business: Talent Makes Capital Dance. London: Financial Times Management. p1-288.

Schroeder, J.E. (2015), Brands: Interdisciplinary Perspectives (Routledge Interpretive Marketing Research). London: Routledge.

Sinclair, R., Keller, K.L. (2014), A Case for brands as assets: Acquired and internally developed. Journal of Brand Management, 21, 286-302.

Starobinskaya N.M., Chebykina, L.V., Ikonnikova, L.V., Zinovjeva, N.A., Topnikova, N.A. (2009), Specificities of monitoring on the market of educational crediting. Problems of Modern Economics, 4, 399-401.

Vertakova, Y.V., Ershova, I.G., Plotnikov, V.A. (2013), Educational system influence on knowledge economy formation. World Applied Sciences Journal, 27(5), 679-683.