



## Assessment of business trust level in Vladivostok state university of economics and service

### Evaluación del nivel de confianza empresarial en la universidad estatal de economía y servicios de Vladivostok

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#### ABSTRACT

The main purpose of this article is to assess the level of trust in the Vladivostok State University of Economics and Service (after this referred to as VSUES) among business structures. To achieve this goal, the following research methods were used: information and comparative analysis, content analysis, survey method, expert assessments, rating, hierarchy analysis method, and index method. The information base of the research was made up of the mission and development strategy of the university, the analytical materials based on the monitoring results of the university effectiveness in 2016-2019, statistical and analytical information posted on federal and regional portals. After the step-by-step assessment, it was revealed which trust criteria of VSUES are insufficient and satisfactory. Based on the analysis of the calculation results, the proposals were formulated that contribute to entrepreneurs' trust level increase in the university.

**Keywords:** Business Structures; Development Strategy; Trust; VSUES.

#### RESUMEN

El objetivo principal de este artículo es evaluar el nivel de confianza en la Universidad Estatal de Economía y Servicios de Vladivostok (en adelante, VSUES) entre las estructuras empresariales. Para lograr este objetivo, se utilizaron los siguientes métodos de investigación: análisis de la información y comparación, análisis de contenido, método de encuesta, evaluación de expertos, calificación, método de análisis jerárquico y método de índice. La base de información de la investigación estuvo compuesta por la misión y estrategia de desarrollo de la universidad, los materiales analíticos basados en los resultados del monitoreo de la efectividad universitaria en 2016-2019, información estadística y analítica publicada en portales federales y regionales. Luego de la evaluación paso a paso, se reveló qué criterios de confianza de VSUES son insuficientes y satisfactorios. Con base en el análisis de los resultados del cálculo, se formularon las propuestas que contribuyen al aumento del nivel de confianza de los empresarios en la universidad.

**Palabras clave:** Estructuras Comerciales; Estrategia De Desarrollo; Confianza; VSUES.

## 1. INTRODUCTION

The concept of trust in economics has been the subject of scientific research and discussion over the past decade. However, it is still unclear how trust in educational institutions should be assessed given the assessed object specifics, which combines non-commercial and entrepreneurial characteristics in modern conditions. The most significant factor of a regional university's competitiveness, according to the authors, is the trust of the business community in its activities (Shirokova et al., 2015; Shuklina & Shirokova, 2020; Carlsson Hauff & Nilsson, 2021).

The issues of the need for the formation and development of trust in the process of partnership organization with higher educational institutions were reflected in the works by Zborovsk and Abramova (2019), Shirokova et al. (2015), Shuklin and Shirokov (2020), and many others. The methodological foundations of trust evaluation in the economy were considered in the scientific works by Takhanova et al. (2017), Khamalinsky and Zavgorodnaya (2014), Egorova and Koroleva (2019), and many others. The main purpose of this work is to assess the level of business trust in the Vladivostok State University of Economics and Service.

To achieve this goal, the following tasks were set:

- they calculated the weighting coefficients of business trust criterion significance in the university;
- they determined the indices of business trust in the Vladivostok State University of Economics and Service within the educational, research and social spheres;
- the main directions of trust development in the university were identified on the basis of the calculations.

## 2. METHODS

This study is a practical application of the methodology to assess the level of trust in universities on the part of business structures, proposed by the authors in previous works (Terentyeva et al., 2020). During approbation of the methodological support for assessing the level of trust in universities on the part of business structures, empirical methods were used, including: information and comparative analysis, content analysis, survey method, expert assessments, rating, hierarchy analysis method, and index method. The Vladivostok State University of Economics and Service (hereinafter referred to as VSUES) was selected for the assessment. The object of assessment is the level of trust in the conditions of interaction between VSUES and business structures, carried out in the main areas of the university activities (Takhanova et al., 2017; Terentyeva et al., 2020).

Assessment of the trust level is based on the principles of comprehensive assessment, measurability of indicators, the use of a single scale of regulation and the principle of universality. The information base for the calculations was the following: the official website of the university, the materials for monitoring the effectiveness of educational organizations of HE in 2018-2019, forums, the sites with reviews about VSUES, and university pages on social networks. Assessment of trust level in VSUES on the part of business structures included several stages:

- 1) determination of the criterion significance for the sphere of interaction;
- 2) calculation of criteria indicators;
- 3) calculation of trust level indices;
- 4) interpretation of the results.

The assessment of the trust level in the university can be carried out both in one of interaction areas with business structures, and in a comprehensive manner for all areas. To achieve the result that most fully and reliably reflects the degree of trust, the methodology has been tested in all areas of interaction and trust criteria.

### 3. RESULTS

When ranking the indicators for assessing trust in universities, it is advisable to take into account the opinion of business structure representatives which have cooperation experience with educational organizations, in connection with which the expert method was used to determine the weight coefficients, according to the results of which the scores of the trust criteria significance assigned by the respondents were turned into the weighting factors (table 1) according to all criteria, with the exception of the university profitability.

Table 1. Weight coefficients of criteria by field of activity

Trust in university criterion	Weight coefficients		
	In education	In science	In social life
University reputation	0.18	0.15	0.15
University service quality	0.19	0.16	0.14
Professional attractiveness of the university staff	0.15	0.2	0.14
Availability and openness of information	0.17	0.15	0.24
Working experience with business	0.17	0.18	0.14
Common goals and absence of contradictions	0.14	0.16	0.19
Total	1.00	1.00	1.00

According to the methodology for assessing the level of trust, to increase the reliability, as well as to determine the significance of the obtained value indicators, the method of hierarchy analysis is used, according to the results of which, the weight coefficients were adjusted. Figure 1 shows the decomposition of a university choice based on trust, where the resulting coefficients for different areas are indicated.

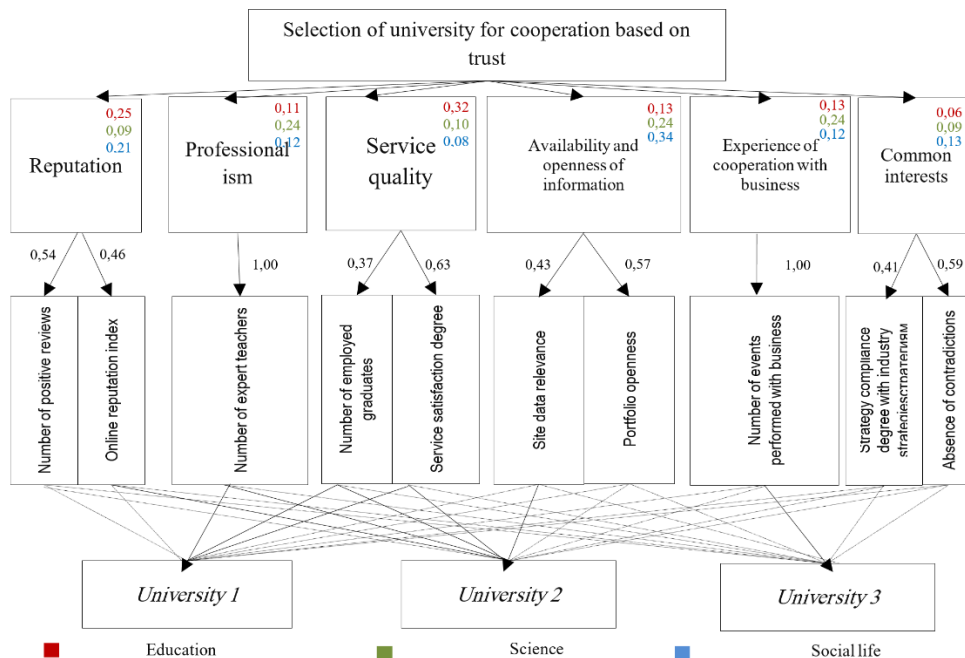


Figure 1. Weight coefficients determined by MAI

The values of the trust level indicators for VSUES, taking into account the range in which these values can vary, and the results of their conversion into points and a 100-digit measurement system are presented in Table 2. To form a uniformity of the indicator system, it is advisable to translate the values presented above.

Table 2. The system of values of indicators to assess the level of trust for VSUES

Item №	Criterion	Indicator	Values before conversion to 100-point measurement system				Values after conversion to 100-point measurement system	
			Un. of mes.	VSUES	Min	Target value	Un. of mes.	VSUES
1.1	University reputation according to media data and reviews	Number of positive reviews on university forums and social network pages	%	74	0	100	score	74
1.2		Online reputation index according to Yandex data	%	29,4	-100	100	score	59
2.1	The quality of services provided by the university	Number of graduates employed during the calendar year following the year of graduation	%	65	0	100	score	65
2.2		Business satisfaction with the qualifications of university graduates	score	2.45	0	4	score	62.3
3.1	Professionalism of the university staff	Number of teachers who are the experts in business	%	15.3	0	22	score	69.6
4.1	Availability and openness of information on the official website of the university	Openness of personal portfolios of employees on the university website	score	4	0	4	score	100
4.2		Relevance of the information reflected on the university website	score	4	0	4	score	100
5.1	The university experience in cooperation with business	Number of university events held with the involvement of business during the last calendar year	%	8.3	0	25	score	33.2
6.1	Common goals	The degree of correspondence between the university and business development priorities	%	57.14	0	66,4	score	86

6.2		Absence of insurmountable contradictions in development priorities	%	100	0	100	score	100
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Based on the methodology to assess the level of trust, the standardization of the trust components includes four levels of assessment:

0-25 - critical level;

25-49 - low level;

50-74 - intermediate level;

75-100 - high level.

At the next stage, the criterion indicators of trust in VSUES on the part of business are calculated, as well as the integral indicators of trust level within the areas of interaction (Table 3).

Table 3. Criterion indicators of trust in VSUES

Item №	Criterion	Value of criterion indicators for VSUES
1	University reputation according to media data and reviews	67.10
2	The quality of services provided by the university	63.27
3	Professionalism of the university staff	69.55
4	Availability and openness of information on the official website of the university	100.00
5	The university experience in cooperation with business	33.20
6	Common goals	94.28

Integrated indicators are calculated by summing the products of the adjusted weight coefficients of the criterion indicators in the analyzed area by the value of this indicator. The results of the assessment are summarized in Table 4.

Table 4. Values of trust index in VSUES by interaction areas

Item №	Interaction area	Value of trust index in VSUES, score
1	Education	61.99
2	Science	69.51
3	Social	77.74

Further, the calculated criterion indicators using a radial diagram are compared with the target indicators, which, according to the rating scale, are the indicators characterizing a high level of trust (Figure 2).

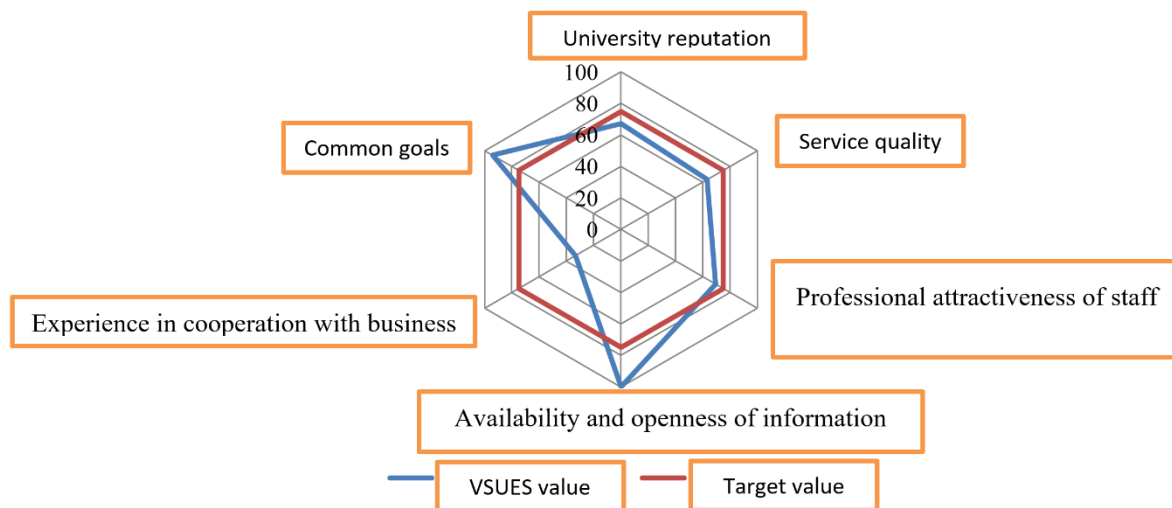


Figure 2. Comparison of the trust indicator values in VSUES with the target values

Based on the assessment of the trust level in VSUES on the part of business structures, it can be concluded that, according to all criteria, the degree of trust takes satisfactory values, with the exception of interaction experience between the university and business. However, taking into account the interconnection of indicators and the main endogenous effects achieved through the development of trust, it should be concluded that the retention and development of other growth areas stimulates the growth of total trust in the university, which, therefore, will have a positive effect on the indicator of activities carried out with the involvement of business structures, and contributes to extrabudgetary funds increase in the university income.

At that, the university should assess the quality of the press service work, which produces coverage on the site of news publications in the field of cooperation with business, because partial publication of news about cooperation with the business environment contributes to the interaction experience indicator decrease according to the proposed methodology for trust evaluation. Also, the growth of this indicator can be achieved by opening discussion platforms to discuss the topical problems of economic development with the business environment, as well as the problems of joint development of e-learning courses with business representatives.

The criterial indicator of the staff professional attractiveness deviation reduction from the target values due to the insufficient share of expert teachers is facilitated by the conduct of such events as:

- revision of the applicant requirements for the position of an employee in terms of the availability of work experience in the disciplines taught;
- provision of greater coverage of teachers in project activities commissioned by business through open discussions of intermediate results at milestones;
- motivation system improvement for university staff to stimulate the initiating role of a teacher to cooperate with the business environment;
- quality control provision of trainers' internship results at enterprises;
- development of experience transfer practice among teachers through open master classes.

The changes of trust indicator in the university will affect the quality of educational and research services, which in turn will stimulate the growth of the university reputation on the Internet and according to media reports. Recommendations of a universal nature include:

1. Optimization of the resource base required for the implementation of measures to increase the level of trust;
2. Organization of control over the implementation of measures to increase the level of trust, incl. the appointment of responsible persons;
3. Development of a roadmap to increase the level of trust.

#### 4.DISCUSSION

In general, the obtained values characterize the average level of trust, close to high one. The step-by-step assessment made it possible to identify problems and determine the directions to increase business trust in VSUES. The results of the study can be used by the Vladivostok State University of Economics and Service in the formation of a methodological basis for the development of interaction with business structures, as well as with entrepreneurs to assess the degree of trust in VSUES from business in the educational, research and social spheres to make a decision on cooperation opportunities. In further studies, it is advisable to compare the development strategies and the levels of trust in universities in different regions of the country.

In order to confirm the hypothesis, put forward by the author, the VSUES trust indices for 2017, 2018 and 2020 and their average growth rate were calculated additionally, which was compared with the growth rates of VSUES performance indicators for previous years (Figure 3) due to the fact that the development of trust in the reporting year is based on the university profitability during the previous period.

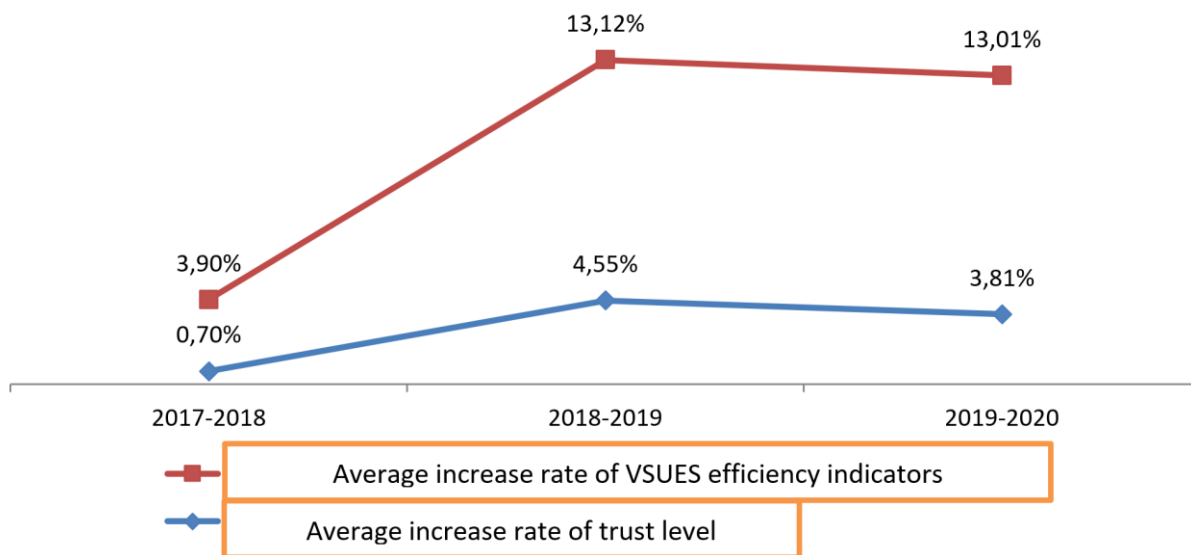


Figure 3. Change in the growth rate of trust and VSUES efficiency indicators

Based on the calculations performed, it can be concluded that the level of trust in the university on the part of business is directly proportional to the level of performance. Also according to the analysis of the competitive positions of VSUES in the National Ranking of Universities for 2017-2019, there is also a positive trend in the rank growth (from 102 to 76) over this period of time, which indicates the dependence of the university competitiveness on the level of trust in it from business (Lebedinskaya et al., 2018; Lebedinskaya & Petruk, 2019; Zborovsky & Ambarova, 2019).

## 5. CONCLUSION

The absence of developed university strategies that determine the importance of the trust role on the part of the business sector suggests that the development of confident relations between universities and business structures is still rather unconscious, which creates the need to include trust in university strategies, develop a roadmap to increase the level of trust, including the measures according to the criteria of trust and by the spheres of interaction, optimization of the resource base necessary for the implementation of measures to increase the level of trust, as well as the need to organize control over the measures to increase the level of trust in order to maintain and increase the university competitiveness (Rakhmanova & Kryukov, 2020; Baturina & Terentyeva, 2020).

## REFERENCES

- Baturina, O. A., & Terentyeva, T. V. (2020) Networking of Strategic Partnerships in Higher Education: Prerequisites and Readiness of Universities. *Propositos Y Representaciones*. 8 (3), E481. doi: 10.20511/pyr2020.v8n3.481.
- Carlsson Hauff, J., & Nilsson, J. (2021). Students' experience of making and receiving peer assessment: the effect of self-assessed knowledge and trust. *Assessment & Evaluation in Higher Education*, 2, 1-13.
- Egorova, N. E., & Koroleva, E. A. (2019). Measurement of Mutual Trust Level between Small Enterprises and Banks. *Adv. Soc. Sci. Educ. Hum. Res.*, 298, 565-567.
- Khamalinsky, I. V., & Zavgorodnyaya, V. V. (2014) Methods for assessing the degree of trust in an enterpris. *Regional Economy: Theory and Practice*. 2(27), 52-58.
- Lebedinskaya, Y. S, Koshevaya, E. S., Petruk, G. V., & Shnaider, O.V. (2018) Methodological tool development to improve competitiveness of university international activities. *Amazonia Investiga*, 8(22), 261-268.
- Lebedinskaya, Y. S., & Petruk, G. V. (2019) Methodological tool development to improve competitiveness of university international activities. *Amazonia Investiga*. 8(22), 261-268.
- Rakhmanova, M. S., & Kryukov, V. V. (2020). Innovative methodological tool for the assessment of the performance of educational institutions. *Revista Gênero E Interdisciplinaridade*, 1(01).
- Shirokova, G., Tsukanova, T., & Bogatyreva, K. (2015). University environment and student entrepreneurship: The role of business experience and entrepreneurial self-efficacy. *Вопросы образования*, (3), 170-207.
- Shuklina, E. A., & Shirokova, E. A. (2020). Trust as a factor in the formation of teachers' readiness to participate in the management of the university. *Management Issues*. 1 (62), 148-157.
- Takhanova, O. V., Tsybikdorzhieva, Z. D., Alekseeva, G. E., & Tsyrenov, A. R. (2017). International and domestic methods for determining the indices of trust in the economy. *Bulletin of Eurasian Science*. 6 (43), 119.
- Terentyeva, T. V., Varkulevichm, T. V., & Pashukm, N. R. (2020). Methodology for assessing the level of trust in the context of interaction between the university and business structures. *Economics and Management: Problems, Solutions*. 1(4), 16-28.
- Zborovsky, G .E., & Ambarova, P. A. (2019). From nonlinear knowledge to nonlinear trust. *Sociological Journal*. 3, 176-187.