The Company's Employer Brand Vulnerability Level Assessment

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Abstract. The question of attracting, retaining and using highly qualified personnel is one of the leading aspects of companies' competitiveness support. This can be ensured by forming and developing a strong employer brand. The authors propose the algorithm for assessing the company's employer brand attributes (components) vulnerability level. It is proposed to use CARVER matrix as the basic evaluation criteria. CARVER means C - criticality, A - accessibility, R - recuperability, V - vulnerability, E - effect, R - recognizability. SBWmethod (Simplified Best-Worst Method) is used to calculate these criteria weighting factors. The authors highlight the following four employer brand attributes. This is the organizational attribute, functional attribute, economic attribute, and psychological attribute. The value of the company's employer brand attributes' vulnerability level according to the criteria is presented. This article aims to provide companies' managers and HR specialists with a reliable and flexible tool. It refers to the mathematical formalization of the employer brand attributes (components) rating task according to their vulnerability degree. The article is the contribution to the application of mathematical methods and models in management. It is a practical tool for justifying management decisions.

Keywords: Company's Employer Brand, Employer Brand attributes (components), Vulnerability Assessment Criteria, CARVER Matrix, SBW-method.

1 Introduction

The labor market of most countries today is characterized by an increased demand for highly specialized and highly professional specialists. Namely, this market is characterized by a high level of competition. The company's powerful employer brand formation and development helps to solve this problem.

In the Universum company management opinion, employer brand management is a vital management tool for any company today [1]. The Universum company is one of the global leaders in the HR-branding market. They call the main reasons for the need to pay attention to the employer brand management question: qualified employees' shortage; more results with less costs; growth and profitability; popularity and power.

Different authors' approaches to the employer brand definition were analyzed. We pay attention to this one: "employer brand is the organizational, functional, economic and psychological attributes complex. They distinguish the company as an employer from other companies. They ensure its competitiveness in the eyes of potential and existing employees [2]".

In our opinion, in the conditions of "highly qualified employees struggle" there is a need to develop a systematic and objective method regarding the definition of the so-called bottlenecks first of all. Namely, those employer brand attributes (components) which are potentially the most vulnerable to the negative impact of both internal and external factors.

There is the problem of assessing the risk of losing the company's competitive position on the labor market due to its employer brand attractiveness decrease in. Now it is traditionally solved by most managers on the situation subjective assessment basis. Therefore, the purpose of the research is the need to develop he algorithm and methodical support for solving this problem.

Subsequent paragraphs, however, are indented.

2 Methodology

In a competitive environment, the company's employer brand, which has a high level of development and a considerable number of competitive advantages in the labor market today, is not a guarantee of maintaining such positions in the strategic perspective. In this situation it is relevant question how to determine its most vulnerable components. This is necessary in order to protect them and to create conditions for preservation and further development.

For the purpose of the company's employer brand attributes' (components') vulnerability level determination, the following algorithm was developed within the study (Fig. 1).

Let's consider each stage of the proposed algorithm in more detail.

Stage 1. As an object of vulnerability level assessment, all attributes (components) can act comprehensively with further analysis of their components. Also, separate employer brand attributes (components) can be taken as an object of vulnerability level assessment, depending on the research objectives.

Stage 2. In order to build a system for ranking the employer brand attributes' (components') vulnerability, we suggest using an adapted matrix CARVER. CARVER means: C – criticality; A – accessibility; R – recuperability; V – vulnerability; E – effect; R – recognizability. This approach makes it possible to balance different criteria importance. It makes it possible to take into account their impact on mission performance. And it also contributes to the optimal resources' use [3].

The proposed tool was initially used only when solving military tasks. But currently, a number of researchers [4, 5] suggest its use in justifying management decisions.

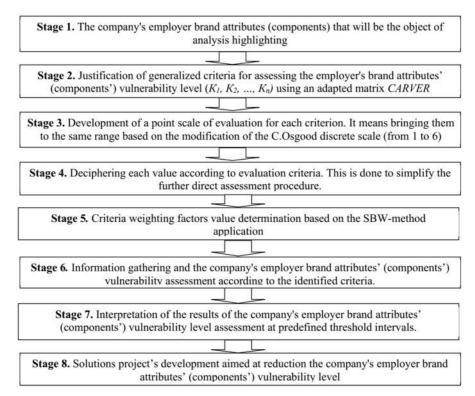


Fig. 1. The company's employer brand attributes' (components') vulnerability level assessing algorithm.

The research design requires experts' survey using a semantic differential. In order to obtain respondents' answers and their further interpretation, the basic scale by C.Osgood [6] was slightly modified in the study. The basic scale by C.Osgood is a discrete scale on which the respondent can rate his attitude to the object under study using a 5-dimensional rating scale between two bipolar statements. 1 is the worst grade. 5 is the best grade. The authors propose to use a discrete 6-point scale. The values and characteristics behind them differ for each defined criterion. The negative aspect of this scientific and methodical approach can be manifested in the difficulty of finding qualified experts.

Stage 3-4. So, the first sub-step in determining the employer brand attributes' (components') vulnerability is their criticality for the company. The attribute (component) is considered to be critical for the company if its condition deterioration has a significant impact on the company's processes. In particular, these processes are related to the company's personnel policy implementation and personnel management strategy. We suggest evaluating criticality on a 6-point scale:

• 6 points – the indicator's deterioration is of crucial importance for the company's personnel management strategic goals realization;

- 5 points the indicator's deterioration is important for the company's personnel management current goals realization;
- 4 points the indicator's deterioration significantly affects the company's personnel management goals achievement;
- 3 points the indicator's deterioration requires the company's personnel management plans slight adjustment;
- 2 points the indicator's deterioration is not decisive for the company's personnel management goals achievement;
- 1 point the indicator's deterioration consequences will mostly not prevent the company's personnel management goals achievement.

In the second sub-stage, it is proposed to evaluate the accessibility criterion. It the employer brand attribute (component) uniqueness degree (unavailable)/difficult to reproduce by competing companies. The criteria's accessibility ranking:

- 6 points competing companies are significantly ahead of us in terms of attribute (component) uniqueness and/or have a level of its development much higher than ours:
- 5 points competing companies are ahead of us in terms of attribute (component) uniqueness and/or have a level of its development somewhat higher than ours;
- 4 points the attribute (component) has a minimal uniqueness degree and/or its development level is on the same level as competitors; therefore, competing companies have no difficulty in reproducing it;
- 3 points the attribute (component) has a sufficient uniqueness degree and/or its development level is not much ahead of competitors; therefore, competing companies have only a partial difficulty in reproducing it;
- 2 points the attribute (component) is mostly unique and/or its development level is quite high; therefore, competing companies have a minimal possibility of its reproduction;
- 1 point the attribute (component) is unique and/or its development level is very high; this fact makes impossible its full reproduction by competing companies.

Sub-stage 3 – the company's employer brand attributes' (components') renewability criterion assessment. That is, how much time will it take for the company to take measures and return its value to the basic (desired) level in the event of a deterioration in the level of development of the attribute. The criteria of renewability ranking on a 6-point scale:

- 6 points it is difficult to predict how long it will take to restore the base values by attribute:
- 5 points it will take more than 1 year to restore the attribute;
- 4 points it will take from 6 months to 1 year to restore the attribute;
- 3 points it will take from 3 to 6 months to restore the attribute;
- 2 points it will take from 1 to 3 months to restore the attribute;
- 1 point it will take less than 1 month to restore the attribute.

In the fourth sub-stage, we evaluate the vulnerability criterion. That is, the presence of weak points (competitive disadvantages) and the ability to withstand the negative impact of the company's environmental factors. Ranking of vulnerability criteria:

- 6 points the attribute (component) is vulnerable; its value reflects the negative impact of any factors, both internal and external environment of the company;
- 5 points the attribute (component) is vulnerable; its value reflects the negative impact of more factors, both internal and external environment of the company;
- 4 points the attribute (component) is vulnerable; its value reflects the negative impact of separate factors, both internal and external environment of the company;
- 3 points the attribute (component) has bottlenecks; but it is invulnerable to the negative influence of internal and microenvironmental factors and most of the company's macroenvironmental factors;
- 2 points the attribute (component) has bottlenecks; but it is invulnerable to the negative impact of most factors of the company's micro- and macro-environment;
- 1 point the attribute (component) has no bottlenecks; it is invulnerable to the negative influence of environmental factors.

Within the fifth sub-stage, there is a ranking according to one of the key criteria. It is effect. It is closely related to the criterion of criticality. The effect reflects the impact on the company's activities (achieving personnel management goals) that a deterioration in the development level of an attribute (component) can have. It is worth noting that in the process of ranking attributes (components) according to the criterion of effect, the consequences should be marked only as assumptions. That is, they can only be hypothetical. Ranking of effect criteria:

- 6 points the attribute (component) deterioration is of crucial importance for the company's personnel management strategic goals' realization;
- 5 points the attribute (component) deterioration is important for the success of the company's current activities in terms of managing its personnel;
- 4 points the attribute (component) deterioration significantly affects the personnel management processes of the company;
- 3 points the attribute (component) deterioration requires a slight adjustment of the company's personnel management plans;
- 2 points the attribute (component) deterioration is not critical to the company's success in managing its personnel;
- 1 point the consequences of the attribute (component) deterioration will mostly not prevent the achievement of the company's personnel management goals.

At the final (sixth) sub-stage, it is proposed to take into account the criterion of recognizability. This criterion represents the degree to which an attribute (component) is considered by management to be valuable to the company. Namely, how much managers focus on it and whether they manage the employer brand effectively. Recognition, like other factors, is suggested to be evaluated on a 6-point scale:

• 6 points – the company's managers do not consider the attribute (component) to be critical in realizing the goals of the company's activities as a whole and managing

its personnel in particular; therefore, they make only the most necessary management decisions regarding its support;

- 5 points company managers believe that changing an attribute (component) will not have a positive effect on the implementation of the company's goals (personnel management goals); therefore, they make only the most necessary management decisions regarding its support;
- 4 points company managers believe that changing the attribute (component) will
 not have a significant impact on the implementation of the company's goals (HR
 goals); therefore, they make an insufficient number of necessary management decisions regarding its support and development;
- 3 points the company's managers believe that the attribute (component) has an indirect effect on the realization of the company's activity goals (personnel management goals); therefore, they pay insufficient attention to making management decisions regarding its support and development;
- 2 points company managers believe that the attribute (component) has a positive effect on the realization of the company's goals (HR goals); therefore, it is the object of constant attention and the adoption of a sufficient number of management decisions for its support and development;
- 1 point company managers believe that the attribute (component) has the maximum positive impact on the realization of the company's goals (HR goals); therefore, it is the object of constant attention and implementation of complex management actions.

Stage 5. Criteria for assessing the level of vulnerability of attributes (components) of the company's employer brand are: K1 – criticality; K2 – accessibility; K3 – renewability; K4 – vulnerability; K5 – effect; K6 – recognition. The weight of these criteria in the study was determined using the SBW-method (Simplified Best-Worst Method) [7, 8]. The procedure of this method provides the use of two approaches. They are "best"-approach and "worst"-approach. The results of both approaches are combined to determine integral importance values.

The "best" and the "worst" criterion is determined based on reaching a consensus by a group of experts. For the "best" approach, a linguistic assessment of the importance (priority) of each criterion compared to the most important ("best"-criterion) is provided using terms. These terms are given in the Table 1. With the help of the same terms, the linguistic evaluation of the criteria for the "worst"-approach is carried out by comparing the worst-criterion with each of the other criteria.

The value of the weighting coefficients of the evaluation criteria for the best-approach and worst-approach using the SBW-method are calculated using the equations [7, 10].

- importance value w_R^{best} «best»-criterion, using equation

$$\left(\sum_{j=1}^{m} \frac{1}{a_{j}^{best}}\right) \times w_{B}^{best} = 1.$$
 (1)

Here from

Table 1. Linguistic terms for evaluating the importance of criteria.

Linguistic terms for evaluating the importance of criteria	Designation	Value
Equally important (Equally)	EI	1
A weak difference in importance (Weakly)	WI	2
Moderate difference in importance (Moderate)	MI	3
Moderate plus (Moderate plus)	MP	4
A big difference in importance (Strong)	SI	5
A strong plus (Strong plus)	SP	6
A very strong difference in importance (Very strong)	VS	7
An extraordinary difference in importance (Extreme)	EX	8

Source: developed by the authors based on [9; 10; 11]

$$w_B^{best} = \frac{1}{\left(\sum_{j=1}^m \frac{1}{a_j^{best}}\right)} = \frac{1}{a_1^{best}} + \frac{1}{a_2^{best}} + \dots + \frac{1}{a_m^{best}}.$$
 (2)

- importance value w_w^{worst} «worst»-criterion, using equation

$$\left(\sum_{j=1}^{m} a_{j}^{worst}\right) \times w_{W}^{worst} = 1.$$
 (3)

Here from

$$w_W^{worst} = \frac{1}{\left(\sum_{j=1}^m a_j^{worst}\right)} = \frac{1}{a_1^{worst} + a_2^{worst} + \dots + a_m^{worst}}.$$
 (4)

So, in this way, the value of the weighting coefficients of all evaluation criteria was obtained:

- best-approach

$$W_j^{best} = \frac{W_B^{best}}{a_j^{best}}; (5)$$

- worst-approach

$$w_j^{worst} = a_j^{worst} \times w_W^{worst} \,. \tag{6}$$

The next step is the linguistic assessment of the identified six criteria for assessing the level of vulnerability of attributes (components) of the company's employer brand. It is carried out according to the scale given in Table 1. The evaluation was carried out by surveying experts (8 respondents). The results of the survey are given in the Table 2.

Table 2. Expert linguistic assessments of assessment criteria.

Æ	F	E ₁	I	Ξ_2	E	Ξ3]	E ₄		E ₅		E ₆	F	Ē ₇	I	Ξ8
$K \setminus$	best	worst	best	worst	best	worst	best	worst	best	worst	best	worst	best	worst	best	worst
K_1	WI	MP	MI	MI	WI	MP	MI	MI	WI	MP	MP	WI	MI	MI	MI	MI
K_2	SI	worst	SI	worst	SI	worst	SI	worst	SI	worst	SI	worst	SI	worst	SI	worst
K_3	EI	SI	EI	SI	WI	MP	EI	SI	WI	MP	EI	SI	EI	SI	EI	SI
К4	best	SI	best	SI	best	SI	best	SI	best	SI	best	SI	best	SI	best	SI
K5	MP	WI	MI	MI	MI	MI	MP	WI	MP	WI	MP	WI	MP	WI	MP	WI
K6	WI	MP	MI	MI	MI	MI	WI	MP	WI	MP	WI	MP	WI	MP	WI	MP

Next, expert linguistic evaluations of the criteria are transformed into fuzzy numbers (Table 3). The calculated values of the weighting factors of the evaluation criteria by the SBM-method are shown in the Table 4.

The integral values of the weighting factors of the evaluation criteria are calculated using the equation:

$$w_{j} = \frac{1}{2} \left(w_{j}^{best} + w_{j}^{worst} \right), \quad j = \overline{1, m}.$$
 (7)

The results of calculations according to equation (7) are presented in the Table 5.

Table 3. Fuzzy evaluations of evaluation criteria when applying best- and worst.

\sqrt{E}	Е	E ₁		E ₂	Е	E3		E4		E ₅		E ₆	Ε	Ē7	Ε	Ē8
$K \setminus$	best	wors	tbest	worst	best	worst	best	worst	best	worst	best	worst	best	worst	best	worst
K_1	2	4	3	3	2	4	3	3	2	4	4	2	3	3	3	3
K_2	5	1	5	1	5	1	5	1	5	1	5	1	5	1	5	1
K_3	1	5	1	5	2	4	1	5	2	4	1	5	1	5	1	5
K_4	1	5	1	5	1	5	1	5	1	5	1	5	1	5	1	5
K5	4	2	3	3	3	3	4	2	4	2	4	2	4	2	4	2
K ₆	2	4	3	3	3	3	2	4	2	4	2	4	2	4	2	4

Table 4. Weighting factors of evaluation criteria according to the best- and worst-approach.

\E	E	31	E	Ξ_2	E	l ₃	Е	Ē4	1	E ₅]	Ξ_6	I	37	E	Ξ8
$K \setminus$	best	worst	best	worst	best	worst	best	worst	best	worst	best	worst	best	worst	best	worst
K_1	0.145	0.190	0.104	0.150	0.174	0.200	0.102	0.150	0.170	0.200	0.086	0.105	0.102	0.150	0.102	0.143
K_2	0.058	0.048	0.063	0.050	0.070	0.050	0.061	0.050	0.068	0.050	0.069	0.053	0.061	0.050	0.061	0.048
К3	0.290	0.238	0.313	0.250	0.174	0.200	0.305	0.250	0.170	0.200	0.345	0.263	0.305	0.250	0.305	0.238
K_4	0.290	0.238	0.313	0.250	0.349	0.250	0.305	0.250	0.339	0.250	0.345	0.263	0.305	0.250	0.305	0.238
K_5	0.072	0.095	0.104	0.150	0.116	0.150	0.076	0.100	0.085	0.100	0.086	0.105	0.076	0.100	0.076	0.095
K ₆	0.145	0.190	0.104	0.150	0.116	0.150	0.152	0.200	0.170	0.200	0.172	0.211	0.152	0.200	0.152	0.190

K	E ₁	E_2	E ₃	E ₄	E ₅	E ₆	E ₇	E ₈	Coefficient of criteria importance \tilde{w}
K_1	0.1675	0.1270	0.1870	0.1260	0.1850	0.0955	0.1260	0.1225	0.1421
K_2	0.0530	0.0565	0.0600	0.0555	0.0590	0.0610	0.0555	0.0545	0.0569
K3	0.2640	0.2815	0.1870	0.2775	0.1850	0.3040	0.2775	0.2715	0.2560
K_4	0.2640	0.2815	0.2995	0.2775	0.2945	0.3040	0.2775	0.2715	0.2838
K_5	0.0835	0.1270	0.1330	0.0880	0.0925	0.0955	0.0880	0.0855	0.0991
K ₆	0.1675	0.1270	0.1330	0.1760	0.1850	0.1915	0.1760	0.1710	0.1659

Table 5. Integral values of the weighting coefficients of the evaluation criteria.

Stage 6. Collection of information and the company's employer brand attributes' (components') vulnerability degree assessment according to the identified criteria. External and/or internal experts may be involved in the evaluation process. If the project budget permits, it is advisable to obtain estimates from both groups of experts and compare them.

Stage 7. Determination of the qualitative characteristics of the company's employer brand attributes' (components') vulnerability level. Within the framework of the study, it is proposed to distinguish four limit intervals with gradation into low, medium, elevated and high (Table 6).

Table 6. Limit intervals for assessing the company's employer brand attributes' (components') vulnerability level.

Level	Limit	Characteristic
	intervals	
Low	[0-3,0)	Attributes (components) that have a low level of vulnerability are practi-
		cally the basis of the company's employer brand formation. They are able
		to resist the negative influence of almost all environmental factors. Even
		in the case of a slight deterioration in values of their development level,
		they quickly recover. The company's managers have opportunities and
		make reasoned management decisions regarding their support and devel-
		opment.
Medium	[3,0-4,0)	Attributes (components) of this group have an average level of vulnera-
		bility. They can resist the factors of influence of the internal environ-
		ment. But they feel the negative influence of certain factors of the exter-
		nal environment. They have an average recovery period, provided that
		management pays due attention and makes reasonable management deci-
		sions.
Elevated	[4,0-5,0)	Attributes of this group have an increased level of vulnerability. They are
		highly sensitive to the negative impact of both internal and external fac-
		tors in the company's environment. They are characterized by a signifi-
		cant recovery period for positive development trends. It is worth paying
		attention to the fact that managers do not always consider these attributes
		(components) as key elements of the company's employer brand.

High [5,0 – 6] Attributes (components) of this group have a high level of vulnerability. Negative trends in their change are observed even under the minimal influence of organizational environment factors. They usually have a very long recovery period. Most management decisions do not contribute to their support and development.

Regarding the attributes (components) of this group, it will be appropriate to use the strategy of their restructuring. Management must realize the need for change and prepare a program of measures. Its purpose is to ensure compliance of the level of development of attributes (compo-

Stage 8. Development of the solutions' project aimed at reducing the company's employer brand attributes' (components') vulnerability level.

nents) with the established goals of the company's personnel manage-

Approbation.

ment.

To illustrate the proposed methodical approach, an assessment of the company's employer brand attributes' (components') vulnerability degree was carried out using a conditional example (Table 7).

As we can see from the table 7 all employer brand attributes of the conventional company have an increased level of vulnerability. They are in the range from 4.0 to 5.0. In addition to the fact that they are quite sensitive to the influence of environmental factors, the company's management also pays insufficient attention to their formation and development. The obtained results require a more detailed analysis of the vulnerability of all attributes of the employer's brand by components. This will enable the management to develop a reasonable program of measures in the future.

The results of assessing the company's employer brand attributes' vulnerability by components are shown in the Tables 8-11.

The results of the analysis of the company's employer brand organizational attribute by components show that only "office location" received a characteristic with an average level of vulnerability. All other components of this attribute have an increased level of vulnerability. In particular, the company's management should pay attention to such components as "the company's position on the market" and "the degree of availability of information about the company for potential employees". Their assessment results suggest that they are approaching a zone with a high level of vulnerability.

As we can see from the Table 9 most components of the functional attribute have an increased level of vulnerability. According to experts, the average level of vulnerability was given to such components as: "content of work" and "possibility of participation in making operational and strategic decisions".

Table 7. The value of the company's employer brand attributes' vulnerability level according to the criteria.

	Tł	sment of vul-					
Employer brand attributes	K1 criticality	K2 accessibility	K3 renewability	K4 vulnerability	K5 effect	K6 recognition	Average weighted assessment of experts on the degree of vul nerability of attributes
	0.1421	0.0569	0.2560	0.2838	0.0991	0.1659	Ay of ne
Organizational attribute	3.14	4.14	4.87	5.21	5.12	4.28	4.6245
Functional attribute	3.57	4.21	4.52	5.12	4.89	4.64	4.6114
Economic attribute	3.43	3.86	4.26	5.09	4.72	4.51	4.4581
Psychological attribute	3.43	3.75	4.09	5.24	4.69	4.73	4.4844

Table 8. The value of the vulnerability level of the organizational attribute of the company's employer brand by components.

The company's employer brand organizational attribute's components		K2 Maccessibility accessibility	respond			K6 recognition	A weighted average estimate of the degree of vulnerability	Characteristics of the level of vulnerability
	0.1421	0.0569	0.2560	0.2838	0.0991	0.1659	th th	
	Organiz	ational	attribut	e				
the company's position on the market	4.68	5.21	4.23	5.21	4.61	5.27	4.8541	Е
recognition of corporate and consumer brands	4.84	4.84	3.57	4.67	3.61	4.19	4.2553	Е
degree of availability of in- formation about the company for potential employees	3.81	4.26	4.85	5.27	4.28	4.68	4.7216	Е
image and reputation of top management	3.56	4.53	4.21	5.36	5.12	4.21	4.5684	Е
location and convenience of office location	3.24	3.51	3.29	3.58	3.11	3.12	3.3442	M

Table 9. The value of the vulnerability level of the functional attribute of the company's employer brand by components.

The company's employer brand functional attribute's components	Criticality California Continuo Control Contro	everage perts (9) accessibility a 0569		K4 vulnerability	KS criteria	K6 recognition	A weighted average estimate of the degree of vulnerability	Characteristics of the level of vulnerability
		tional at		0.2000	0.0771	0.1007		
the content of the work	3.56	3.62	3.12	3.65	3.25	3.23	3.4044	M
opportunities for training and	4.58	3.98	5.36	4.12	3.64	3.87	4.4215	Е
professional development								
career growth prospects	3.62	4.54	5.21	4.73	5.12	4.52	4.7061	Е
objectivity in the assessment	4.52	3.86	3.61	3.54	5.36	4.97	4.1464	E
of work by managers								
the possibility of participation	3.97	3.67	3.27	3.31	3.29	3.24	3.4130	M
in the adoption of operational								
and strategic decisions								

Table 10. The value of the vulnerability level of the economic attribute of the company's employer brand by components.

The company's employer brand economic attribute's components	K1 criticality	average perts (9	K3 renewability	K4 vulnerability	KS et les to the control of the cont	K6 recognition	A weighted average estimate of the degree of vulnerability	Characteristics of the level of vulnerability
	0.1421		0.2560	0.2838	0.0991	0.1659	7 0	
	Econ	omic att	ribute					
salary level	4.57	5.24	4.87	3.85	4.29	4.12	4.3956	Е
guarantee of employment stability	4.96	5.36	3.91	4.26	4.58	4.28	4.3837	Е
work schedule	3.64	3.73	3.57	3.17	4.26	3.57	3.5575	M
working conditions and level of workplace organization	3.24	4.72	4.57	3.14	4.61	3.67	3.8557	M
social package	3.95	4.28	4.13	4.15	4.43	3.57	4.0712	Е

Table 11. The value of the vulnerability level of the psychological attribute of the company's employer brand by components.

The company's employer brand psychological attribute's components	K1 criticality	average perts (9)	K3 renewability	K4 vulnerability Applies to the second sec	KS et les criteria	K6 recognition	A weighted average estimate of the degree of vulnerability	Characteristics of the level of vulnerability
	0.1421		0.2560		0.0991	0.1659	7 0	
	Psycho	logical a	ittribute	?				
corporate culture	4.12	3.57	4.63	4.21	3.67	3.54	4.1196	Е
the appearance of the compa-	3.21	3.54	3.61	3.57	4.52	4.87	3.8508	M
ny's office and staff socio-psychological climate of the team	5.87	5.21	5.57	4.87	5.34	5.23	5.3355	Н
management style	4.64	3.68	4.28	4.98	5.17	4.39	4.6184	Е
lack of nepotism	3.82	3.38	3.21	3.93	3.27	3.68	3.6068	M

The results of the analysis of the economic attribute of the company's employer brand by components indicate that only "work schedule" and "working conditions and level of workplace organization" received a characteristic with an average level of vulnerability. The remaining components of this attribute have an increased level of vulnerability.

The analysis of the results of the assessment of the components of the psychological attribute revealed that, in fact, only the components "the appearance of the office and the company's personnel" and "the absence of nepotism" are sufficiently controlled by the company's management. Special attention should be paid to the component "social and psychological climate in the team". It received the characteristic of a high level of vulnerability.

3 Conclusions.

The transformation of human capital into a dominant strategic resource for economic growth and ensuring competitiveness requires poise in making appropriate management decisions. One of the priority directions for improving the company's position on the labor market and increasing the level of employee loyalty to the company is the formation of a powerful employer brand. Modern business challenges are primarily related to instability and dynamic changes. They are difficult to predict. But we need to be ready for them.

Strengthening the validity of development prospects will be facilitated by the formation of appropriate methodological support for the processes of identifying bottlenecks in matters of the vulnerability of the employer brand, adapted to the specifics of making personnel management decisions.

The solution of the task set in the research allows to mathematically formalize the task of rating the attributes (components) of the employer brand according to the degree of their vulnerability. The results can be used by company managers to develop and substantiate strategic management decisions.

Therefore, the application of the algorithm (methodological recommendations) proposed in the study, based on the use of the adapted CARVER matrix, will allow company managers to rank individual attributes (components) of the employer brand according to the degree of vulnerability. It is this information that will serve as a basis for making reasonable management decisions in the process of developing measures and recommendations for the formation and development of a sustainable brand of the company's employer in the labor market.

References

- 1. Universum Homepage, https://universumglobal.com/, last accessed 2024/08/13.
- 2. Bilorus, T. V., Firsova S. G.: Essential characteristic of the employer brand category. In: Materials International. of Science Conf. "Theory and practice of economic development management", pp. 316-318. TOV «VIPO», Kyiv (2019).
- 3. Repilo, Y.E., Prymirenko, V.M., Demyaniuk A.V.: Methodology for determining the priority of enemy objects for accepting them as possible targets for the purpose of fire support using the CARVER matrix. Modern information technologies in the field of security and defense 47 (2), 155-166 (2023). http://doi.org/10.33099/2311-7249/2023-47-2-155-166.
- Bencie, L., Araboghli, S.: A 6-Part Tool for Ranking and Assessing Risks. https://hbr.org/2018/09/a-6-part-tool-for-ranking-and-assessing-risks, last accessed 2024/08/13.
- Gaijinass. Use the CARVER Matrix for Management. URL:https://gaijinass.com/2009/09/07/use-the-carver-matrix-for-management/, last accessed 2024/08/13.
- Osgood, C. E.: Method and theory in experimental psychology. Oxford University Press, New York (1953).
- Balan, V., Kozlenko A.: Evaluation of the SWOT-analysis factors of the research university based on fuzzy data. Bulletin of Odessa National University. Economy 28 (95), 22-34 (2023). https://doi.org/10.32782/2304-0920/1-95-4.
- 8. Amiri, M., et al.: A Fuzzy Extension of Simplified Best-Worst Method (F-SBWM) and Its Applications to Decision-Making Problems. Symmetry 15(1), 81 (2023). https://doi.org/10.3390/sym15010081.
- Rezaei, J.: Best-worst multi-criteria decision-making method. Omega 53, 49-57 (2015). https://doi.org/10.1016/j.omega.2014.11.009.
- Balan, V.: Enterprise strategies stratification based on the fuzzy matrix approach. Neuro-Fuzzy Modeling Techniques in Economics 11, 124-156 (2022). http://doi.org/10.33111/nfmte.2022.124.
- 11. Zadeh, L.A.: Fuzzy Sets as a Basis for a Theory of Possibility. Fuzzy Sets and Systems 1(1), 89-100 (1978).