ҚАЗАҚСТАННЫҢ ИННОВАЦИЯЛЫҚ ЖӘНЕ ПОСТИНДУСТРИАЛДЫҚ САЯСАТЫН ЖҮЗЕГЕ АСЫРУ ТИІМДІЛІГІ

ЭФФЕКТИВНОСТЬ РЕАЛИЗАЦИИ ИННОВАЦИОННОЙ И ПОСТИНДУСТРИАЛЬНОЙ ПОЛИТИКИ В КАЗАХСТАНЕ

EFFECTIVENESS OF IMPLEMENTATION THE POST-INDUSTRIAL AND INNOVATION POLICY IN KAZAKHSTAN

UDC 338.124

A.M. Kabdulsharipova[1], S.N. Suieubayeva[1], E.S. Madiyarova[1], O. Ozpence[2]

[1]D. Serikbayev East Kazakhstan State Technical University, Ust-Kamenogorsk, Kazakhstan;
[2]Pamukkale University, Denizli, Turkey
(E-mail: Suyeubaeva@mail.ru)

The choice of the enterprise development strategy in the context of the economic crisis

Timely and informed choice of the development strategy is extremely important for business in crisis, fierce competition and a quickly changing situation. When choosing a development strategy must consider not only factors external and internal environment, but also the concept of strategic management. It's necessary to use such a method of choosing a strategy that would take into account the calculation of the criteria can be qualitative. These aspects cover different stages of the strategic process. In this article we propose a refined model of the choice of strategy of development of the enterprise, which enables industrial companies to select the most promising development strategy in the context of the global crisis, taking into account all relevant factors. The proposed method is to select the priority of the development strategy of the company through the method of PARK (steam compensation) of two strategies selected separately for conditionally-objective and quasi-subjective approaches, to account for these factors and reduce the error rate of wrong choice of strategy. The algorithm of development strategy is presented which shows that one important task of enterprise management is to increase the efficiency of complex development, which includes a high degree of reactivity to market changes or other circumstances, and the provision of new or upgraded services or products.

Keywords: strategy, strategy of innovation development, choice of development strategy, model of development strategy choice.

The development of the information and communication industry in Kazakhstan has faced some difficulties in the context of the crisis. The current situation has reduced the planned rate of growth in the provision of services. The main reasons are related to the stages of the life cycle of key service markets to end users, which determine the development of the industry as a whole, traditional fixed telephony, cellular communications and broadband Internet access. An effectively chosen development strategy contributes to the company's profitability, its competitiveness and market value, and also ensures the stability of the company's operations.

On the basis of a comprehensive analysis of the activities of the national telecom operator Kazakhtelecom JSC outside the framework of this article, it can be argued that the entity in question retains its leading position in the telecommunications market, but given its resource potential - an extensive infrastructure, a large service portfolio, a broad service network, subscriber base, you can predict a much higher maximum net profit. On the basis of these resources, it is necessary to approach the strategic issues in a comprehensive manner and identify areas of business improvement and new promising development paths.

Choosing the right strategy for the development of the company is a guarantee of its future success in the market. In the theory of decision-making, there are methods that allow you to make a decision, to choose

the optimal strategy from *n* strategies. Such methods include the method of arithmetic mean ranks, the method of linear convolution, the methods of multicriteria utility theory, the methods of incomparability thresholds Electre, the method of analytical hierarchy, dialog and qualitative methods.

However, it is worth considering that each method can reveal its advantages and disadvantages due to the presence of risk and uncertainty. Therefore, it is necessary to use such a strategy selection methodology that takes into account the calculation of criteria that can be qualitative in nature. These aspects cover various stages of the strategic process. The proposed methodology is to choose a priority strategy for the development of the company through the PARK method (pair compensation) of the two strategies selected separately for the conventional-objective and conditionally-subjective approaches.

At the first stage, priority directions of the company's development are determined. Ideally, for a full-fledged development of the company, it is necessary to develop strategies in all areas of its activities, in reality companies often choose the directions associated with the development of core activities. In the second stage, we select *m* criteria for estimating strategies from *k* criteria that have statistics for *n* periods. In the third stage, the optimal strategies are evaluated and selected based on the criteria selected in the second stage. The choice of criteria and strategy is proposed to be made on the basis of conditional-objective and conditionally-subjective approaches.

The conditional-objective approach in the selection of evaluation criteria and in the evaluation of innovative strategies is built on the formation of an integrated measure of the evaluation of strategies, which includes the criteria determined through technical processing of data using the Pearson main component method [1]:

$$y_j = a_1 \times \frac{x^j 1}{\overrightarrow{x_1}} + a_2 \times \frac{x^j 2}{\overrightarrow{x_2}} + \cdots a_i \times \frac{x^j i}{\overrightarrow{x_i}} + m \times \frac{x^j m}{\overrightarrow{x_m}}, \quad (1)$$

where *yj* — is the integral measure of the strategy estimate *j*; *ai* — loads by *i* criterion; *xji* — is the value of the *i* criterion for the *j* strategy; *xi* — is the average value of *i* criterion for *n* periods; *m* — is the number of criteria selected from *k* criteria.

Let's consider the sub-steps of the conditionally-objective approach, where we realize:

1) collection of data on *k* criteria for *n* periods and the formation of a table of their values;

2) the construction of a correlation matrix of criteria, which shows how the criteria are dependent on each other. In order to avoid multicorrelation, it is necessary to select only a part of the criteria that can be used to evaluate strategies, which is carried out on the third sub-step;

3) selection of *m* criteria from a set of *k* criteria, b representing the matrix *k n*, where *k* is the number of initially specified criteria, *n* is the number of periods. To select *m* criteria, the principal component method is used, which is designed to structure the data by reducing a plurality of variables to a smaller number of new variables that contain the greater part of the variance of the values of the data under study. Each component takes into account the maximum of the total variance of the criteria in order: the first main component takes into account the maximum of the total variance of the criteria, the second major component does not correlate with the first and takes into account the maximum of the remaining variance, and so on until the entire variance is taken into account. This method consists of the following steps, shown in Figure 1.

Centralization and normalization of the elements of the matrix *X*, the elements of which are the initial values of *k* criteria for *n* periods:

$$X = \begin{bmatrix} X_{11} & X_{12} & X_{1k} \\ X_{21} & X_{22} & X_{2k} \\ X_{n1} & X_{n2} & X_{nk} \end{bmatrix}. \quad (2)$$

The elements of this matrix are reduced to a single measurement system, that is, they are standardized (normalized) according to the formula (3):

$$t_{z1} = \frac{\left(x_{i-\overline{X}}\right)}{\delta_i}, \quad (3)$$

where *x* — is the average of the variable x; *δ i* — is the standard deviation of the variable x.

Formation of the matrix Y (after all elements are normalized), which can be represented in expanded form (4):

$$\begin{bmatrix} y_1 \\ y_2 \\ \dots \\ y_m \end{bmatrix} = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1m} \\ a_{21} & a_{22} & \dots & a_{2m} \\ \dots & \dots & \dots & \dots \\ a_{n1} & a_{n2} & \dots & a_{nm} \end{bmatrix} \times \begin{bmatrix} f_1 \\ f_2 \\ \dots \\ m \end{bmatrix}. \quad (4)$$

The creation of a correlation matrix for the normalized components S = Y · YT, which has the form:

$$S = \begin{bmatrix} 1 & s_{12} & \dots & s_{1n} \\ s_{21} & 1 & \vdots\vdots & s_{2n} \\ \dots & \dots & & \dots \\ s_{n1} & s_{n2} & \dots & 1 \end{bmatrix}. \quad (5)$$

The calculation of the vectors and eigenvalues of the matrix *S*, which involves the compilation of its characteristic equation. For this it is necessary to find the determinant of the matrix *S*:

$$\det(S) = \begin{bmatrix} 1-\lambda & s_{12} & \dots & s_{1n} \\ s_{21} & 1-\lambda & \vdots\vdots & s_{2n} \\ \dots & \dots & & \dots \\ s_{n1} & s_{n2} & \dots & 1-\lambda \end{bmatrix}. \quad (6)$$

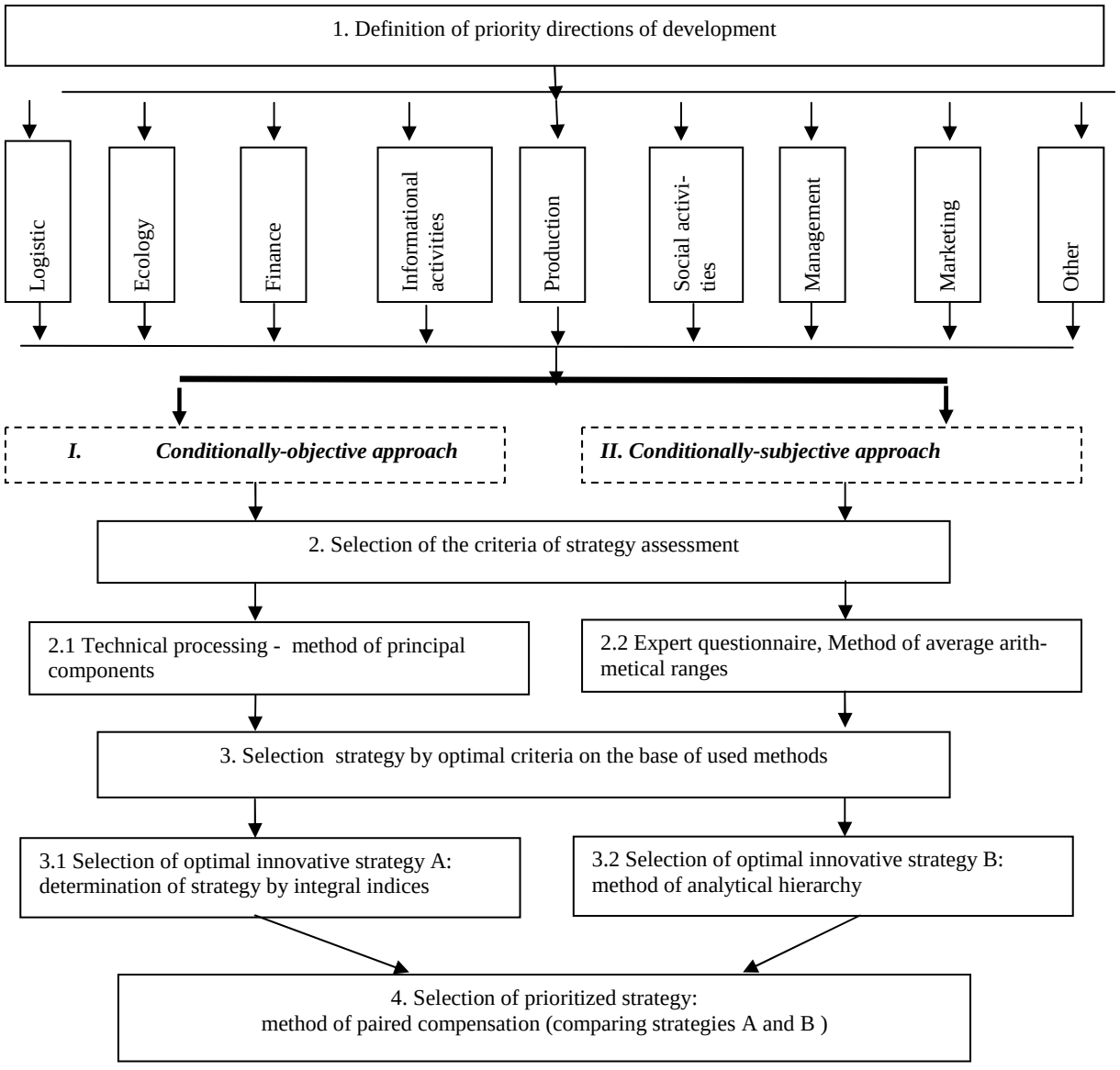

Figure 1. Algorithm of the method of principal components [2]

Assuming that *det (S) = 0*, we find the roots of the *n*-order equation with variable *λ*. The eigenvalues *λi* are the fraction of the variation of the original data set contained in the corresponding main component. Further, by the matrix *S* for all *λi* we form a system of equations and find the roots *ei* (7):

$$\begin{cases} (1-\lambda i)e_{11} + s_{12}e_{12} + \cdots s_{1nln} = 0 \\ s_{21}e_{11} + (1-\lambda i)e_{12} + .. s_{2n}s_n = 0 \\ s_{n1}e_{11} + s_{n2}e_{12} + (1-\lambda i)e_{1n} = 0 \end{cases} \quad (7)$$

Solving the system, we obtain the solution vector *en = (e1, e2 ... ei ... en)*. The values of the elements of the vectors show which components explain what proportion of the variation.

Determining the values of the components of *li* by finding the sum of products of the vector *en* by the normalized values of the elements *tz* (8):

$$l_i = \sum_{i=1}^{n} e_i t_{zi}. \quad (8)$$

The resulting values of the components will show how much they share the total variance. The components with the smallest values deviate from further consideration. In practice, the method of the main components with a large dimension of the matrix (with a large number of criteria) is carried out using Matlab software. This ends the method of the main components, but in order to determine which criteria are most significant, it is proposed to apply the next step.

From the resulting matrix of main components is the arithmetic mean of each line, since each row is the projection of the standardized variables on the axis of the principal components, and it can be considered as a criterion in the new coordinate system. Those standardized criteria that will have maximum arithmetic mean values will be defined as the main criteria for the formation of an integral criterion. In order to determine the equation of the integral indicator of the evaluation of innovative strategies, we propose to move on to the following sub steps.

Formation of a matrix of data on *m* criteria normalized according to formula (3), by which the strategies for *n* periods will be evaluated. Formation of the equation of the integral indicator of the evaluation of innovative strategies.

After the matrix of normalized values of the selected criteria is formed, the weight of each criterion is determined by the set of criteria by dividing the value of the arithmetic mean of the i-string by the sum of the arithmetic mean values for *m* criteria, which is represented in columns p-1 and p. The weight obtained for each criterion will be the load before the criterion in equation (1), which will thus be an integral measure for the evaluation of strategies.

Calculation of the integral value of *yj* for each strategy by substituting the values of the criteria for the corresponding strategy and the loads found in equation (2). Ranking strategies based on the value of *yj* and choosing an optimal strategy using a conditional-objective approach.

Conditionally-subjective approach in the selection of criteria and evaluation of innovative strategies is a selection innovative strategy by applying the hierarchy analysis method based on the criteria selected expertly.

The choice of *k* of the *n* criteria for evaluating the strategy is made by conducting an expert evaluation of the priority criteria, for which it is better to use the method of average arithmetic ranks, to avoid problems associated with the definition of the ordinal scale. This stage consists of the following steps:

1) for each mi expert, a questionnaire is provided in which he needs to rank the criteria for preferences from 1 to n, given that 1 is the highest rank;

2) ranking criteria and selecting the best. After all the criteria are evaluated by experts, the average score xi is determined for each criterion. To do this, we use the formula of weighted average, by the value of which the criteria are ranged:

$$\bar{x}_i = \frac{\sum_{i=1}^{m} x_i \times m_u}{m}, \quad (9)$$

where *xi* — is the rank given by each expert in the *i*-parameter; *mi* — the number of experts who put the same rank in *i* parameter; *m* — is the number of experts.

Since the criteria are ranked in ascending order, from 1 to *n*, where the criterion having the greatest preference *j* of the expert is evaluated by the number 1, the criterion that has the minimum value of *xi* is the best. To determine the consistency of the expert estimates, it is possible to apply the Kendall concordance coefficient characterizing the connections between several characteristics measured in the ordinal scale:

$$W = \frac{12S}{m^2(n^3-n)};\ S = \sum_{i=1}^{n}(\sum_{j=1}^{m} x_{ji} - \overline{x_j}), \quad (10)$$

where *n* — is the number of alternatives; *m* — number of experts; *xi* — evaluation of each expert on the *i*-alternative; *xi* — is the average rating of each expert for all alternatives.

The coefficient of concordance takes the values [0; 1]: the more it tends to 1, the greater the consistency in expert estimates.

The choice of priority strategies is carried out using the method of analyzing the hierarchies of T.Saati, the sub-steps of which are presented in Figure 2.

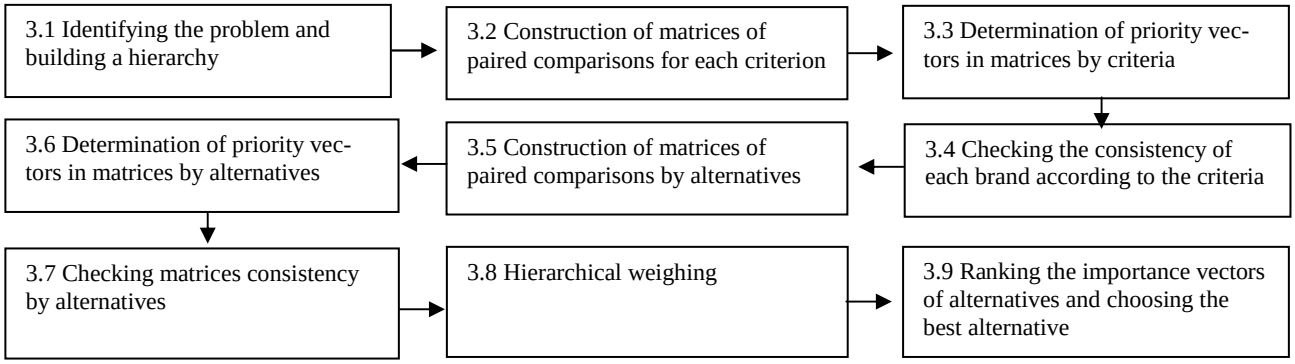

Figure 2. Sub-steps of the hierarchy analysis method

Determine the problem and build a hierarchy. The more the number of levels, the more matrices of paired comparisons must be constructed. In our task, three levels are set: the goal (the choice of the best alternative) - the selection criteria - the alternative.

Construction of matrices of paired comparisons for each element in all levels. The matrix represented in the form of Table 1, is constructed according to a separate element (criterion) by paired comparisons of elements (alternatives) to determine the degree of dominance of one element over the others.

The degree of dominance of one element over another is numerically determined by the relationship scale presented in Table 1.

Table 1

The relationship scale used in the hierarchy analysis method [3]

Degree of significance	Definition	Explanation
First	Equivalent importance	Actions contribute equally to the achievement of the goal
Third	Weak importance	There are preferences in favor of one of the actions, however these considerations are not convincing enough
Fifth	Essential or strong significance	There are reliable logical judgments to show the preference for one of the actions
Seventh	Obvious or very strong significance	Convincing evidence in favor of one action over others
Ninth	Absolute Significance	Testimony in favor of the preference of one action to another is supremely convincing
Second, fourth, sixth, eighth	Intermediate values between two neighboring judgments	Situation where a compromise solution is needed

The upper limit of the scale, limited to 9, is explained by the person's psychological ability to produce qualitative distinctions with five definitions: weak, equal, strong, very strong and absolute. In this case, it is possible to adopt compromise definitions between neighboring definitions, when greater accuracy is needed [4].

Evaluation starts with the left element of the matrix. The evaluation asks the question: how much is this element more important than the element on the right? When the element is compared with itself, the ratio is one. If the first element is more important than the second, then an integer from the scale *(n)* is used, otherwise the return value (*1 / n)* is used. Reverse to each other relations are recorded in the symmetric positions of the matrix.

The levels of significance are determined by experts or decision-makers who, in the evaluation, rely on experience and knowledge, criterial analysis of the situation, and forecasting the dynamics of the data. Definition of priority vectors. A set of local priorities is formed from the group of matrices of paired comparisons, which express the relative influence of a plurality of elements on an element of the layer adjoining

from above. The priority vectors are usually calculated using the geometric mean (11) obtained by multiplying the elements of each row and extracting the root of the *n*th power, where *n* is the number of elements.

$$w_i = \sqrt[n]{e_1}e_2..e_n. \quad (11)$$

The weight, or the priority vector, of the element *(wi)* is determined by dividing the value of each local priority vector by the sum of the values of all local priorities [4; 206]:

$$W_i = \frac{w_i}{\sum_{i=1}^{n} w_i}. \quad (12)$$

The consistency check of each of the matrices in question is performed by determining the maximum eigenvalues, consistency indices, and consistency relations. In the case of inconsistency of the matrix of paired comparisons, should review their judgments.

The largest eigenvalue (number) of the judgments matrix *λmax* is the sum of the products of the sums of the elements of each *j*-column by the value of the corresponding priority vector *wi* [5]:

$$\lambda max = \sum_{i=1}^{n}(a_{1j} + a_{2j} + .. + a_{nj}) \times w_i. \quad (13)$$

Information on the degree of violation of numerical consistency gives the consistency index, which is found by the formula:

$$ID = \frac{(\lambda max - n)}{n-1}, \quad (14)$$

where *n* — is the dimension of the matrix (the number of objects being compared).

The mathematical expectation of the consistency index of a randomly constructed matrix of pairwise comparisons, which is based on experimental data, is called the random consistency index (CI).

In the Table 2, CI values for random matrices of different orders are presented. If we divide the ID by the CI number, we get the consistency relation:

$$CR = \frac{ID}{CI}. \quad (16)$$

If the CR value is more than 10 % (0.1), then it is considered unacceptable, and the decision maker needs to reconsider their judgments. Similarly, matrices of paired comparisons are constructed by all criteria.

Table 2

Average value of CI depending on the order of the matrix

Order of the matrix (n)	CI	Order of the matrix (n)	CI	Order of the matrix (n)	CI
1	0,00	6	1,24	11	1,51
2	0,00	7	1,32	12	1,48
3	0,58	8	1,41	13	1,56
4	0,90	9	1,45	14	1,57
5	1,12	10	1,49	15	1,59

The construction of the matrix of paired comparisons by alternatives by analogy with the matrix presented in Table 3, where the alternatives are compared not by *i* criterion, but by the criteria for the *j* alternative. The definition of priority vectors for each criterion within each alternative.

Table 3

Summary table of the shortcomings of alternatives

Characteristics of the strategy A	Ranking of the shortcomings for the strategy A (chosen according to the conditional-objective approach)	Ranking of the shortcomings for the strategy B (chosen according to the conditional-subjective approach)	Characteristics of strategy B
Characteristic 1			Characteristic 1
Characteristic 2			Characteristic 2
Characteristic 3			Characteristic 3
...			...
Characteristic n			Characteristic n

Verification of the consistency of each of the matrices of paired comparisons in question by alternatives. Hierarchical weighing (the principle of synthesis). Formally, the stage of synthesis can be represented

as a product of the vector row of the priority matrix, the columns of which are priority vectors of alternatives with respect to the criteria being considered, to the column vector of the importance of the criteria themselves. In general, this can be expressed as:

$$W(Aj)= W(Ajk1)\cdot Wk1 + W(Ajk2)\cdot Wk2 + \ldots + W(Ajki)\cdot Wki + \ldots + W(Ajkn)\cdot Wkn, \quad (15)$$

where *W (Aj*) – is the significance of the *Aj* alternative among all considered alternatives by all criteria; *W (Ajki)* – is the significance of the *Aj* alternative among all considered alternatives in the *ki* criterion; *Wk1* - the significance of the *ki* criterion within the *Aj* alternative among all the criteria considered.

Ranking of alternatives on the basis of the received importance vectors of each alternative according to the set of criteria and the choice of the optimal alternative. The alternative, which has the highest significance index among all considered alternatives by all criteria, is considered optimal within the framework of the conditional-subjective approach. In order to determine which of the two strategies selected according to the conditional-objective and conditionally-subjective approaches is a priority for the company under certain conditions, it is necessary to carry out a pair compensation (the PARK method) [6], which allows describing the shortcomings of the strategies qualitatively (verbally), but not quantitatively, which is especially important for strategies.

The PARK method includes the following sub-stages.

Ranking of the deficiencies of each strategy by the degree of significance in the summary table of shortcomings, presented in Table 4. Rank 1 is assigned to the characteristic that reflects the greatest shortcoming in the opinion of the decision maker, then - in increasing rank. The description of the characteristics in this case is the same.

The construction of a basic alternative possessing higher ranks, that is, smaller flaws. To the basic alternative, the main shortcomings of real alternatives are added to show that the shortcomings of one strategy are more significant than the other. A less preferred alternative with a large number of deficiencies is excluded, and a more preferred one is recognized as a priority. If the combination of the shortcomings of real alternatives does not allow this, then alternatives are declared in comparable, and additional criteria must be introduced from the list of criteria that descend beyond the ones used. Iterations occur until a priority strategy is identified for solving the problem posed.

As you can see, the choice of strategy is a complex process, since not only quantitative but also qualitative criteria are used, it is necessary to take into account not only the subjective component of the selection process, but also the conditions in which the choice is made. The proposed methodology allows you to take into account these factors and reduce the percentage of mistakes in the wrong choice of strategy, since not only subjective, but also objective analyzes are used, which helps confidently make the final choice of the company's development strategy for winning the competition.

Determination of priority directions of development of the company JSC «Kazakhtelecom»: logistics; ecology; finance; information activities; production; social activities; control; marketing.

Under a conditionally-objective approach, the choice of criteria for evaluating strategies is carried out by the method of principal components. This is a large dimension matrix, calculated using the Matlab software. The result revealed leading criteria, such as universality, stability. The choice of the optimal strategy 1: the definition of the strategy through an integral indicator. To determine the equation of the integral indicator of the evaluation of strategies, you need to form a matrix of normalized values of the selected criteria, determine the weight of each criterion by the set of criteria by dividing the value of the arithmetic mean by the sum of the arithmetic mean values by the criteria. Calculating the value of the integral value for each strategy by substituting the values of the criteria for the corresponding strategy and the found loads in the equation, where the weight is 0.7 and 0.8, respectively.

With a conditionally-subjective approach in selecting criteria and carrying out an evaluation of strategies, the strategy is selected by applying the hierarchy analysis method based on criteria selected expertly. Ranking of alternatives on the basis of the received importance vectors of each alternative according to the set of criteria and the choice of the optimal alternative. The alternative, which has the highest significance index among all considered alternatives by all criteria, is considered optimal within the framework of the conditional-subjective approach. These are the criteria of efficiency, logistics, integration.

The choice of a priority strategy in order to determine which of the two strategies selected according to the conditional-objective and conditionally-subjective approaches is a priority for the company under certain conditions, it is necessary to carry out a pair compensation (PARK method), which allows describing the shortcomings of the strategies qualitatively verbally), and not quantitatively, which is especially important for strategies.

As a result of the implementation of the methodology for choosing the strategy of the enterprise JSC «Kazakhtelecom», proposed in this article, a strategy of innovative development was selected, which was related to the use of intelligent information technologies in optimizing the company's business processes, as well as applying new organizational, technical and socio-economic solutions to the production, financial, commercial or administrative nature.

Development of an innovative strategy is rarely purely formal, the strategy itself must be constantly adjusted taking into account the changing external environment and internal conditions in the organization. Therefore, the task of the company's management is not only to correctly formulate a strategy, but also to correctly choose the mechanism for its implementation, taking into account the characteristics of the business and the environment in the market (Table 4).

Table 4

Summary table of the shortcomings of alternatives

Characteristics of the strategy criterion 1	Ranking of shortcomings for the strategist 1 (chosen according to the conventional-objective approach)	Ranking of the shortcomings for the strategy 2 (chosen according to the conditional-subjective approach)
Easy to use	4,3	7,2
Latitude of application	2,8	8,8
Objectivity of the results	7,1	4,6
Versatility	4,8	5,6
Degree of accounting for internal factors	5,3	7,8
Stability	6,3	5,7
Degree of risk	5,9	4,9
Efficacy	6,1	5,2
The cost	3,2	3,2
Degree of integration	4,7	5,4
Logistics level	2,6	3,4
Average value	4,8	5,2
Total score in points	57,9	67

Generalizing certain theoretical knowledge and analyzing practical experience on technological and managerial innovations of a number of foreign firms, it is possible to organize national systems in Kazakhstan, including telecommunication systems, taking into account the experience of leading enterprises in introducing innovations, it can be said that the innovative development of any production, including telecommunications equipment, based on the profitable use of new competitive services and products produced the development of new technologies, as well as on the basis of the application of new organizational, technical and socio-economic solutions of production, financial, commercial or administrative nature. The process of innovative development consists in obtaining and commercializing the invention, new technologies, including intellectual, informational, types of products and services, financial, administrative or other decisions. It is the innovative development that leads to the creation and marketing of competitive products and services and the improvement of the economic condition.

References

1 Ларичев О.И. Качественные методы принятия решений. Вербальный анализ решений / О.И. Ларичев, Е.М. Мошкович. — М.: Наука, 2016. — 208 с.

2 Иванова И.В. Стратегический анализ внешней и внутренней сред субъектов хозяйствования / И.В. Иванова, Э.Н. Кроливецкий // Вестн. Чувашского ун-та. — 2011. — № 4. — С. 415–418.

3 Саати Т. Аналитическое планирование. Организация систем / Т. Саати, К. Кернс; пер. с англ. — М.: Радио и связь, 2011. — 224 с.

4 Саати Т. Принятие решений. Метод анализа иерархий / Т. Саати; пер. с англ. — М.: Радио и связь, 2013. — 320 с.

5 Дубров А.М. Обработка статистических данных методом главных компонент / А.М. Дубров. — М.: Статистика, 2008. — 134 с.

6 Хургин Я.И. Статистическое моделирование: учеб. пособие / Я.И. Хургин, Н.О. Фастовец. — М.: Нефть и газ, 2003. — 72 с.

А.М. Кабдулшарипова, С.Н. Суйеубаева, Э.С. Мадиярова, О. Озпенчи

Экономикалық дағдарыс жағдайында кәсіпорынның дамыту стратегиясын таңдау

Тез өзгеретін және қатаң бәсекелестік пен дағдарыс жағдайларында бизнес үшін аса маңызды болып табылатын жайттардың бірі — дамудың уақытылы және негізделген стратегиясын таңдау. Даму стратегиясын таңдау кезінде сыртқы және ішкі ортаның факторларымен қатар, стратегиялық басқару тұжырымдамасын да ескерген жөн. Стратегия таңдауда сапалық сипаттамаларды келтіретін критерийлерді есептеуді ескеретін әдістемені қолдану қажет. Бұл аспектілер стратегиялық үдерістің әртүрлі кезеңдерін қамтиды. Мақалада кәсіпорынның даму стратегиясын таңдаудың нақтыланған үлгісі ұсынылды. Ол үлгі әлемдік дағдарыс жағдайында барлық маңызды факторларды ескере отырып, өнеркәсіптік кәсіпорындарға перспективалық даму стратегиясын таңдауға мүмкіндік береді. Бұл әдістеменің мәні келесіде: дамуының басым стратегиясын ПАРК (жұп өтемақы) әдісі көмегімен таңдау. Шартты-объективті және шартты-субъективті көзқарастар бойынша жеке сұрыпталған екі стратегия алынған факторларды ескереді және дұрыс емес стратегияны таңдау қателігінің пайызын төмендетеді. Ұсынылған алгоритм құру стратегиясы кәсіпорынды басқаруда нарықтың және басқадай жағдайлардың өзгеруі сонымен қатар жаңа және жаңғыртылған өнім беруді қосатын кешенді дамудың тиімділігінің маңыздылығын көрсетті.

Кілт сөздер: стратегия, инновациялық даму стратегиясы, даму стратегиясын таңдау, даму стратегиясын таңдау үлгісі.

А.М. Кабдулшарипова, С.Н. Суйеубаева, Э.С. Мадиярова, О. Озпенчи

Выбор стратегии развития предприятия в условиях экономического кризиса

Своевременный и обоснованный выбор стратегии развития является чрезвычайно важным для бизнеса в условиях кризиса, жёсткой конкуренции и быстро меняющейся ситуации. При выборе стратегии развития необходимо учитывать не только факторы внешней и внутренней среды, но и концепцию стратегического управления. Необходимо использовать методику выбора стратегии, учитывающей расчет критериев, которые могут носить качественный характер. Эти аспекты охватывают различные этапы стратегического процесса. В данной статье предложена уточненная модель выбора стратегии развития предприятия, которая дает возможность промышленным предприятиям выбрать наиболее перспективную стратегию развития в условиях мирового кризиса с учетом всех значимых факторов. Предлагаемая методика заключается в выборе приоритетной стратегии развития компании посредством метода ПАРК (парной компенсации) из двух стратегий, отобранных отдельно по условно-объективному и условно-субъективному подходам, что позволяет учесть эти факторы и снизить процент ошибки, неверного выбора стратегии. Представлен алгоритм разработки стратегии, который показывает, что одной из важных задач управления предприятием является повышение эффективности комплексного развития, которое включает в себя высокую степень реактивности на изменения рынка или других обстоятельств, а также предоставление новой или модернизированной услуги или продукции.

Ключевые слова: стратегия, стратегия инновационного развития, выбор стратегии развития, модель выбора стратегии развития.

References

1 Larichev, O.I., & Moshkovich, E.M. (2011). *Kachestvennye metody priniatiia reshenii. Verbalnyi analiz reshenii [Qualitative methods of decision-making. Verbal analysis of solutions]*. Moscow: Nauka [in Russian].

2 Ivanova, I.V., & Krolivetsky, E.N. (2011). Stratehicheskii analiz vneshnei i vnutrennei sredy subektov khoziaistvovaniia [Strategic analysis of the external and internal environments of economic entities]. *Vestnik Chuvashckoho universiteta – Bulletin of the Chuvash University, Vol. 4*, 415–418 [in Russian].

3 Saati, T., & Kerns, K.(2011). *Analiticheskoe planirovanie. Orhanizatsiia sistem [Analytical planning. Organization of systems]*. Moscow: Radio i sviaz [in Russian].

4 Saati, T. (2013). *Priniatie reshenii. Metod analiza ierarkhii [Decision Making. Method of analyzing hierarchies]*. Moscow: Radio i sviaz [in Russian].

5 Dubrov, A.M. (2008). *Obrabotka statisticheskikh dannykh metodom component [Processing of statistical data by the principal component method]*. Moscow: Statistika [in Russian].

6 Khurgin, Y.I., & Fastovets, N.O. (2003). *Statisticheskoe modelirovanie [Statistical Modeling]*. Moscow: Neft i haz [in Russian].