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Business management in modern economic management conditions

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Abstract. The paper presents indicators of modern business management, based on the current economic situation of its management. When selecting indicators, the emphasis is placed on the last stage of management evolution, which is characterized by the primary role of scientific and technical achievements in the development of the economy, including its commercial sector, and, accordingly, such resulting and factor indicators as changes in income and expenses, direct and indirect ratio of income and profit to expenditures on human capital, investment capital, and innovation capital are taken into account. The construction of these dependencies between changes in income and expenses is carried out through a combination of different types of dependencies (additive, multiplicative, multiple), which help to identify the degree of influence of each factor indicator on the resulting indicators and take actions to maximize the result and minimize business costs using the computational and constructive method in interaction with individual elements of mathematical analysis. The material is useful for entrepreneurs, regardless of their type of activity and organizational and legal status, educational and scientific figures, students of higher and secondary specialized institutions of economic and managerial programs, specialties and profiles.

1. Introduction

Modern business is characterized by features that distinguish it from previous epochs of economic development, and require entrepreneurs to comply with the realities, without which it is impossible to maximize the financial benefits that stimulate the effective functioning of reproduction processes. Special attention is currently paid to the postulates laid down by representatives of the school of management science, whose views on management are reduced to replacing verbal reasoning with economic-statistical and economic-mathematical calculations based on a group of indicators that reflect the degree of success of entrepreneurial actions. From the author's point of view, the formation of such indicators should be based on existing economic problems. In general, the literature notes that one of the most important shortcomings of the current economic mechanism is the lack of costs in the field of maintaining innovative activities, which slows down the rate of productivity of live and materialized labor and prevents entrepreneurs from avoiding imputed costs. Taking into account this and other circumstances, we will consider the issues of creating tools in the form of a group of business management indicators in modern business conditions that reflect changes in the result and costs in dynamics (increase or decrease in the result and overspending or saving money for doing business) under the influence of various quantitative and qualitative parameters.

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Information sources are the works of national and foreign researchers involved in business development during the period of advanced scientific and technical achievements. These authors include national publications published by A.A. Gretchenko [1], V.A. Goremykin [2], Yu.I. Efimychev [4], D.S. Ivanov [5], B.G. Kasparov [6], L.A. Klimova [7], N.I. Komkov [8], A.S. Krasnikova [9], V.A. Rogova [10], I.E. Frolov [11], and foreign publications published by P.F. Drucker [3], Y.A. Schumpeter [12], containing prerequisites for the formation of business management indicators by the authors in accordance with the stage of management science.

The aim of forming business management indicators is to recommend entrepreneurs to apply methods of calculating them for an objective (comprehensive and extensive) assessment. Its achievement is based on solving a number of tasks:

1. Modification of the structure of productive forces as the core of entrepreneurial activity.

2. Consideration of business costs elements, based on the modification of the structure of productive forces.

3. Integration of cost elements and the result compared with them into a single economic chain when calculating the financial benefits of entrepreneurial actions.

The tasks will be solved using the methods and techniques that are most suitable for the chosen research topic.

2. Methods

The study is based on the constructive method, combining in the process of formation of indicators of their additive, multiplicative and multiple combination that is necessary for comprehensive and systematic analysis of changes in outcome and costs, are criteria for assessing the quality of business, combined with elements of mathematical analysis, providing detail based on the respective result from the factor indicators.

When evaluating business management indicators, they will allow entrepreneurs to get accurate information about the impact of factor indicators on the resulting indicators in general and in particular (for some elements) that affect the result and costs, which, in turn, determine the effectiveness of business activities.

3. Results

The existing structure of the productive forces, consisting of labor and means of production, of course, in general terms remains relevant, but needs to be refined, based on the intensive leap in the development of science, where innovations (applied innovations) play a key role. This suggests that the above-mentioned elements of productive forces in modern economic conditions complement technologies that promote the use of living and materialized resources in the implementation of business activities efficiently and at the same time at the maximum level of productivity. At the same time, the authors see one of the primary reasons for inefficient business management by many entrepreneurs in their conservatism and refusal to recognize the fact of transformation of productive forces and the equality of the technological factor with the resource factors of its management. The refusal on the part of entrepreneurs to recognize the technological factor in the composition of productive forces is confirmed in several conditions:

1. Financial conditions:

1) low share of innovative spending on commercial research and development;

2) small share of innovation expenditures in relation to revenue and profit;

3) differentiation in the amount of funding for resource and technological activities due to the long payback period for innovative investments in commercial projects.

2. Market conditions:

1) small and inelastic demand for scientific and technical results from the commercial sector of the economy;

2) low level of motivation of representatives of the commercial sector of the economy to innovate;

3) there is little interest in innovation on the part of owners.

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3. Institutional conditions:
1) weak development of innovative commercial centers;
2) imperfection of the legislative system for supporting scientific and technological developments;
3) narrow diversification of innovation infrastructure in the field of entrepreneurial actions;
4) lack of feedback between priorities and tools to support commercial innovation solutions.
4. Personnel conditions:
1) lack of technologies for managing personnel employed in the commercial sector of the economy;
2) limitations on the scale of innovative improvement of personnel in the business sphere.
5. Motivational conditions:
1) insufficient support for business innovations in operating and other activities;
2) inefficient tax legislation in relation to business innovations.
6. Other conditions:
1) lack of integrity in the innovative concept of entrepreneurship development;
2) a small degree of creativity in the maintenance of commercial projects.

The above facts confirm the need to finance and apply the most effective levers for the development of innovative infrastructure at both the micro and macro levels, which serves as a driving force for effective entrepreneurship, and take into account the technological factor when evaluating business management indicators along with resource factors. Taking into account the importance of resource and technological factors, the authors suggest the use of several resulting indicators of business management in the future, as their relevance in view of further deepening of scientific knowledge will become irrefutable.

When forming such resulting indicators, we selected classical factor indicators that correspond to the understanding of the result and costs, efficiency and cost of doing business: income, profit, human capital expenditures, investment capital, innovation capital.

The basic part of business management indicators should be indicators of business performance (formulas (1), (2), (3), (4)):

$$Ef_{rb(in)} = \frac{Rb}{\mathrm{Ehc+Eic+Einc}}, \tag{1}$$

where $Ef_{rb(in)}$ – direct business performance by revenue;
R_b – income from doing business, rubles;
E_{hc} – human capital expenditures, rubles;
E_{ic} – investment capital expenditures, rubles;
E_{inc} – innovation capital expenditures, rubles;

$$\mathrm{Efbp(p)} = \frac{\mathrm{Pb}}{\mathrm{Ehc+Eic+Einc}}, \tag{2}$$

where $Ef_{bp(p)}$ – direct business performance by profit;
P_b – profit from doing business, rubles;
E_{hc} – human capital expenditures, rubles;
E_{ic} – investment capital expenditures, rubles;
E_{inc} – innovation capital expenditures, rubles;

$$\mathrm{Efib(ind)} = \frac{\mathrm{Ehc+Eic+Einc}}{\mathrm{Pb}}, \tag{3}$$

where $Ef_{ib(ind)}$ – indirect business performance by revenue;
E_{hc} – human capital expenditures, rubles;
E_{ic} – investment capital expenditures, rubles;
E_{inc} – innovation capital expenditures, rubles;
P_b – profit from doing business, rubles;

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$$\text{Efib(p)} = \frac{\text{Ehc+Eic+Einc}}{\text{Pb}}, \tag{4}$$

where $Ef_{ib(p)}$ – indirect business performance by profit;
E_{hc} – human capital expenditures, rubles;
E_{ic} – investment capital expenditures, rubles;
E_{inc} – innovation capital expenditures, rubles;
P_b – profit from doing business, rubles;

Then business management indicators, whose essence is to maximize results and minimize costs on a qualitative basis, primarily in dynamics, take the following form (formulas (5), (6), (7), (8)):

$$\Delta \text{Ib} = \left[\frac{\text{Ib1}}{\text{Ehc1+Eic1+Einc1}} - \frac{\text{Ib0}}{\text{Ehc0+Eic0+Einc0}}\right] * (\text{Ehc1} + \text{Eic1} + \text{Einc1}), \tag{5}$$

where $\Delta\ I_b$ – change in revenue due to changes in the direct efficiency of doing business by revenue, rubles;
I_{b1} – income from doing business in the reporting period, rubles;
E_{hc1} – human capital expenditures in the reporting period, rubles;
E_{ic1} – investment capital expenditures in the reporting period, rubles;
E_{inc1} – innovation capital expenditures in the reporting period, rubles;
I_{b0} – income from doing business in the base time period, rubles;
E_{hc0} – human capital expenditures in the base time period, rubles;
E_{ic0} – investment capital expenditures in the base time period, rubles;
E_{inc0} – innovation capital expenditures in the base time period, rubles;

$$\Delta \text{Pb} = \left[\frac{\text{Pb1}}{\text{Ehc1+Eic1+Einc1}} - \frac{\text{Pb0}}{\text{Ehc0+Eic0+Einc0}}\right] * (\text{Ehc1} + \text{Eic1} + \text{Einc1}), \tag{6}$$

where $\Delta\ P_b$ – change in profit due to changes in the direct efficiency of doing business by profit, rubles;
P_{b1} – profit from doing business in the reporting period, rubles;
E_{hc1} – human capital expenditures in the reporting period, rubles;
E_{ic1} – investment capital expenditures in the reporting period, rubles;
E_{inc1} – innovation capital expenditures in the reporting period, rubles;
P_{b0} – profit from doing business in the base time period, rubles;
E_{hc0} – human capital expenditures in the base time period, rubles;
E_{ic0} – investment capital expenditures in the base time period, rubles;
E_{inc0} – innovation capital expenditures in the base time period, rubles;

$$\Delta E_{b/r} = \left[\frac{\text{Ehc1+Eic1+Einc1}}{I_{b1}} - \frac{\text{Ehc0+Eic0+Einc0}}{I_{b0}}\right] * I_{b1}, \tag{7}$$

where $\Delta E_{b/r}$ – change in expenses due to changes in indirect business performance by revenue, rubles;
E_{hc1} – human capital expenditures in the reporting period, rubles;
E_{ic1} – investment capital expenditures in the reporting period, rubles;
E_{inc1} – innovation capital expenditures in the reporting period, rubles;
I_{b1} – income from doing business in the reporting period, rubles;
E_{hc0} – human capital expenditures in the base time period, rubles;
E_{ic0} – investment capital expenditures in the base time period, rubles;
E_{inc0} – innovation capital expenditures in the base time period, rubles;
I_{b0} – income from doing business in the base time period, rubles;

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$$\Delta E_{b/p} = \left[\frac{\text{Ehc1+Eic1+Einc1}}{P_{b1}} - \frac{\text{Ehc0+Eic0+Einc0}}{P_{b0}}\right] * P_{b1}\,, \quad (8)$$

where $\Delta E_{b/p}$ – change in expenses due to changes in indirect business performance by profit, rubles;
E_{hc1} – human capital expenditures in the reporting period, rubles;
E_{ic1} – investment capital expenditures in the reporting period, rubles;
E_{inc1} – innovation capital expenditures in the reporting period, rubles;
P_{b1} – income from doing business in the reporting period, rubles;
E_{hc0} – human capital expenditures in the base time period, rubles;
E_{ic0} – investment capital expenditures in the base time period, rubles;
E_{inc0} – innovation capital expenditures in the base time period, rubles;
P_{b0} – income from doing business in the base time period, rubles;

These indicators correspond to the traditional understanding of assessing the degree of influence of quality parameters on the result and costs, as the change in both revenue and expenses depends on both changes in performance indicators (direct performance indicators) and changes in cost indicators (indirect performance indicators) and, therefore, can be applied in assessing business management.

4. Discussion

The characteristics of the business management indicators formed by the authors are presented in tables 1 and 2.

Table 1. Characteristics of business management indicators by revenue.

Indicator	Content
Change in revenue by changing the direct efficiency of doing business by revenue	Increase (decrease) in income due to an increase (decrease) in the result (income) in relation to total expenses, including expenses on human capital, investment capital, innovation capital
Change in expenses due to changes in indirect business performance by revenue	Saving (overspending) of funds by increasing (reducing) costs, including expenditures on human capital, investment capital, innovation capital, in relation to the result (income)

Table 2. Characteristics of business management indicators by profit**.**

Indicator	Content
Change in profit by changing the direct efficiency of doing business on profit	Increase (decrease) in profit due to an increase (decrease) in the result (profit) in relation to total expenses, including expenses on human capital, investment capital, innovation capital
Change in expenses due to changes in the indirect efficiency of doing business on profit	Saving (overspending) of funds by increasing (reducing) costs, including expenditures on human capital, investment capital, innovation capital, in relation to the result (profit)

They show that the business management indicators proposed by the authors have the following advantages:

1. Compliance with the modern structure of productive forces, focused on a combination of resource and technological factors for financial profit.
2. A complete and comprehensive reflection of the elements required for modern entrepreneurship.
3. Ability to make timely decisions to improve the results and costs of commercial projects.

Using these advantages, entrepreneurs will be able to calculate objectively the level of business efficiency and develop the necessary measures to maximize the result and minimize costs.

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5. Summary

The author's business management indicators meet modern business conditions, because they are adapted to the current stage of management evolution, which is characterized by the key role of science in the application of living and materialized labor to achieve commercial goals. They will become tools for entrepreneurs to conduct a comprehensive and systematic assessment of business performance and develop measures to optimize commercial efforts.

These indicators cover the entire current mechanism of business activity, consisting of human, investment and innovation capital, corresponding to the current structure of productive forces, in which the resource factor is supplemented by the technological factor, and therefore, will allow analyzing in detail the ongoing business processes in the commercial sector of the economy.

Thus, the goal is achieved, the tasks are fully solved, as all the requirements for the formation of business management indicators related to the mandatory consideration of the laws of its conduct under the current business mechanism with its inherent resource and technological unity are met.

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