BUSINESS FORECAST OF LEVELS OF BUSINESS MANAGEMENT IN CONDITIONS OF UNCERTAINTY

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The traditional view of the future in business is based on forecasts. The development plan necessarily takes into account metrics and indicators. For example, the company decides that in a year it plans to increase revenue by 3 times. For forecasting, data from the past is used - for example, a metric for the same period last year. This approach in planning helps to choose the direction in the strategy. For example, counting on revenue growth, you need to make a commensurate effort - invest in the development of a new product or open new sites for the sale of goods.

Running a business in an uncertain environment is not easy, especially when you are faced with unforeseen situations such as trade disruptions, a pandemic and inflation.

However, there is a solution that is created in order to help deal with cause-andeffect relationships and internal rules for the operation of systems. This solution is modeling. With it, you can make a business forecast in case of unforeseen events, for example, large-scale failures in supply chains due to a pandemic or geopolitical shifts.

However, no one knows with absolute certainty what will happen at the end of the year - at the moment when, according to the forecast, the company expects revenue growth. Last year's data cannot take into account or predict events that have not yet occurred. Therefore, planning should include an adjustment for the uncertainty factor - for example, the risk of a pandemic.

Gathering information helps reduce uncertainty. The more risks you take into account in the strategy, the more likely you are to prepare for major changes. It is convenient to collect and analyze factors in the PEST analysis format

Level 1. A fairly clear future. At this level, the environment is stable and slowly changing, so a simple forecast of the future will be accurate enough to develop a strategy.

Level 2. An alternative future. The future is one of several alternative discrete scenarios, but you're not sure which one will eventually happen. With this level of uncertainty, companies that are facing major regulatory or legislative changes are operating. With the simulation model, managers can run a variety of what-if scenarios. Thus, they check and analyze how the simulated system will work, and assess possible risks.

Level 3. The range of future events. To determine the range of scenarios, you need a limited number of key variables, and the possible outcome may be somewhere within that range.

For example, the owner of a café knows from his observations that the first visitors usually come at any time from 8:30 to 10 am. At the same time, any number of customers from 1 to 5 can enter the cafe. When modeling a café, the engineer will have to consider these ranges of variable values.

Level 4. Real uncertainty. At this level, the key factors that influence the development of the future are unknown or there are too many of them, and the

relationships are too unpredictable. Unlike the Scenarios of Level 3, it is impossible to determine either the range of potential outcomes or the scenarios within the range.

Situations falling into this category are rare, but they do exist. McKinsey gives the example of market developments in Russia after 1992. Companies that were considering investing in Russia at the time faced level four uncertainty. They could not predict which laws or regulations would govern property rights and transactions. Nor could they assess the viability of supply chains and demand for goods and services that had not previously been in the market. In addition, other political or economic factors could change the entire system in unforeseen ways.

Most real-world scenarios, which are dynamic in nature, are level 2 or 3 and can be worked with using simulation modeling.

Taking into account the proposed levels of uncertainty in the preparation of business forecasts in business activities will help enterprises to more effectively carry out the management process and achieve more stable results.

Literature:

- 1. Tkachev M.M., Kobielieva T.O., Pererva P.G. (2016) Evaluation of holder profits violation of their exclusive rights // Scientific bulletin of Polissia. № 4 (8), ч. 2. С. 240-246.
- 2. Pererva P.G., Kocziszky G., Szakaly D., Veres Somosi M. (2012) Technology transfer / P.G.Pererva, Kharkiv-Miskolc: NTU «KhPI». 668 p.
- 3. Compliance program of an industrial enterprise. Tutorial. (2019) / [P.G Pererva et al.] // Edited by prof. P.G.Pererva, prof. Gy.Kocziszky, prof. M.Somosi Veres. Kharkov-Miskolc: NTU "KhPI". 689 p.
- 4. Tkachov M.M., Kobielieva T.O., Pererva P.G. (2016) Evaluation of holder profits violation of their exclusive rights // Scientific bulletin of Polissia. No 4 (8). P. 27-35.
- 5. Марчук Л.С., Перерва П.Г. Інтелектуальний потенціал як економічна категорія // HTУ «ХПІ» (економічні науки) : зб. наук. np. Харків : HTУ "ХПІ", 2018. № 15 (1291). С. 53-63.
- 6. Перерва П.Г. Інформаційна діяльність підприємства: управлінська, цінова та маркетингова складові // Вісник НТУ «ХПІ» (екон. науки) : зб. наук. np. X.: НТУ "ХПІ". 2018. № 37(1313). С. 27-32 .
- 7. Kobielieva T.O., Tkachov M.M., Tkachova N.P., Pererva P.G. (2017) Modeling the marketing characteristics of market capacity for electrical automation // Marketing and Management of Innovations. № 4. C.67-74.
- 8. Старостіна А.О. Маркетинг: теорія, світовий досвід, українська практика: підруч. К.: Знання, 2009. 1070 с.
- 9. Financial and technological leverage in the system of economic evaluation of innovative technologies (2017) / P.G.Pererva [et al.] // Financial and Credit Activity Problems of Theory and Practice 2(23). 405-413.
- 10. Ткачова Н.П., Перерва П.Г. Розвиток методів аналізу фактичного стану конкурентних переваг підприємства // Економіка розвитку. 2011. № 4 (60). С. 116-120.
- 11. Kobielieva T.O, Tkachov M.M., Tkachova N.P., Pererva P.G. (2017) Determination of marketing characteristics of market capacity for electrical automation // Менеджмент і маркетинг інновацій. №3. С.79-86.
- 12. Kobielieva T.O., Tkachov M.M., Tkachova N.P., Pererva P.G. (2017) Modeling the marketing characteristics of market capacity for electrical automation // Marketing and Management of Innovations. No. C.67-74.
- 13. Глізнуца М.Ю., Перерва П.Г. Бенчмаркінг як метод оцінювання інтелектуального потенціалу регіонів // *Маркетинг і менеджмент інновацій*. 2015. № 4. С. 11-19.

14. Кравчук А.В., Перерва П.Г. Ефективність як економічна категорія // *Вісник НТУ «ХПІ» (економічні науки) : зб. наук. пр.* Харків : НТУ "ХПІ", 2018. № 15 (1291). С. 137-143.