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N. O. Shpak, Doctor of Economic Sciences, Professor,
N. S. Stanasiuk, Candidate of Economic Sciences, Associate Professor,
O. V. Hlushko, Candidate of Economic Sciences

TOOLS FOR INTERPRETATION OF ECONOMIC INFORMATION FOR A MANAGEMENT OF INDUSTRIAL POTENTIAL DEVELOPMENT

Urgency of the research. *In the conditions of a transitive economy, the search for effective tools for managing the process of development of industrial potential and tools that are suitable for the needs of the interpretation of economic information has an actual importance.*

Target setting. *Changes and peculiarities of functioning of economic systems in the conditions of the domestic transformational economic environment predeterm the rethinking and adaptation of existing tools to new conditions in order to increase the efficiency of management of development of industrial potential.*

Actual scientific researches and issues analysis. *In Ukraine, the question of interpreting economic data and managing development of industrial potential is considered through the prism of financial risk, financial crises in developing countries and the potential for economic recovery through progressive approaches.*

Uninvestigated parts of general matters defining. *Available scientific research requires attention to the study of tools for implementing the process approach to managing the development of industrial potential in order to achieve a higher level of objectivity in managerial decisions.*

The research objective. *The article is aimed at forming tools for interpreting economic information and integrating it into the main tasks of the process of managing the development of industrial potential.*

The statement of basic materials. *In the scientific research the emphasis was placed on the identification of effective tools for managing the process of development of industrial potential. An argumentative analysis of existing tools available for the interpretation of economic information is carried out. An advanced approach to the implementation of system tools in the process of managing the development of industrial potential is proposed.*

Conclusions. *Applied tools development based on the principle of template solutions that are capable of increasing the efficiency of management of the development of industrial potential in modern conditions are developed.*

Keywords: *tools; management; economic information; industrial potential.*

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Н. О. Шпак, д. е. н., професор,
Н. С. Станасюк, к. е. н., доцент,
О. В. Глушко, к. е. н.

ІНСТРУМЕНТАРІЙ ІНТЕРПРЕТАЦІЇ ЕКОНОМІЧНОЇ ІНФОРМАЦІЇ ДЛЯ УПРАВЛІННЯ РОЗВИТКОМ ПРОМИСЛОВОГО ПОТЕНЦІАЛУ

Актуальність теми дослідження. *В умовах транзитивної економіки актуального значення набуває пошук дієвих інструментів управління процесом розвитку промислового потенціалу та інструментальних засобів, придатних для потреб інтерпретації економічної інформації, необхідної для прийняття управлінських рішень.*

Постановка проблеми. *Зміни та особливості функціонування економічних систем в умовах вітчизняного трансформаційного економічного середовища зумовлюють необхідність переосмислення та адаптації наявного інструментарію до нових умов з метою підвищення ефективності управління розвитком промислового потенціалу.*

Аналіз останніх досліджень і публікацій. *В Україні питання інтерпретації економічних даних й управління розвитком промислового потенціалу розглядаються через призму фінансового ризику, фінансових кризових явищ в країнах, що розвиваються, та потенціалу відновлення економіки за допомогою прогресивних підходів.*

Виділення недосліджених частин загальної проблеми. *Наявний науковий доробок потребує акцентування уваги на вивченні інструментарію для реалізації процесного підходу до управління розвитком промислового потенціалу з метою досягнення вищої об'єктивності управлінських рішень.*

Постановка завдання. *Стаття спрямована на формування інструментарію інтерпретації економічної інформації та інтегрування його до магістральних завдань процесу управління розвитком промислового потенціалу.*

Виклад основного матеріалу. *В науковому дослідженні зроблено акцент на виокремленні дієвих інструментів управління процесом розвитку промислового потенціалу. Проведений аналіз існуючих інструментальних засобів, придатних для потреб інтерпретації економічної інформації. Запропоновано інноваційний підхід реалізації системного інструментарію в процесному управлінні розвитком промислового потенціалу.*

Висновки. *Розроблено прикладний інструментарій, що базується на принципі шаблонних рішень, який спроможний підвищити ефективність управління розвитком промислового потенціалу в сучасних умовах.*

Ключові слова: *інструментарій; управління; економічна інформація; промисловий потенціал.*

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Urgency of the research. The basic principles of the tool, in the modern sense, organically fit into the system of management of industrial potential. Taking into account the meritocratic aspects of management of industrial potential, tool assets are capable of analytically and schematically presenting its main components that need to be systematized and adapted to the conditions of a transitive economy.

Target setting. The primary task of formation of efficient tools is a pre-collected essential economic information. Without a doubt, an economic information is the main source for making analytical procedures, but equally important is the well-chosen means of its interpretation. Such kind of a method may be some procedures, and the choice of these procedures correlates the management process. That is why the preference to of the tool looks like a main task of our investigation. In order to identify effective analytical tools for managing industrial potential we have had analyzed the most commonly used means of interpreting economic information.

Actual scientific researches and issues analysis. Because of increasing the crisis phenomena, the problem of interpretation of economic data and management of development of industrial potential was considered through the prism of financial risk, financial crises in developing countries and the potential for economic recovery through progressive approaches [1-3].

The tools for managing complex economic phenomena are essentially similar to economically related economic phenomena. In this case, only a partial modification of the instrument can significantly increase its effectiveness for managing a related economic phenomenon. Suitable sources for our study were sources on the topic of economic sustainability [4; 5]. The aforementioned sources comprehensively represent the essence of the modern economic system and highlight the tendency towards its balanced development. At the same time, the theme of the balanced development is actively promoting in the context of industrial potential.

Some researchers [6; 7] clearly distinguish components of economic stability, the essence of which is often related to the postulates of the development of industrial potential. In addition, the study takes into account the views on industrialization, renewable energy sources and digital technologies [8], which definitely influence the process of determining the level of development and management of industrial potential.

We have strengthened theoretical and practical material by researching scientific developments in the subject of analytical and managerial tools [9; 10]. The used sources allowed to form the corresponding tools for management of the process of development of industrial potential corresponding to the modern economy.

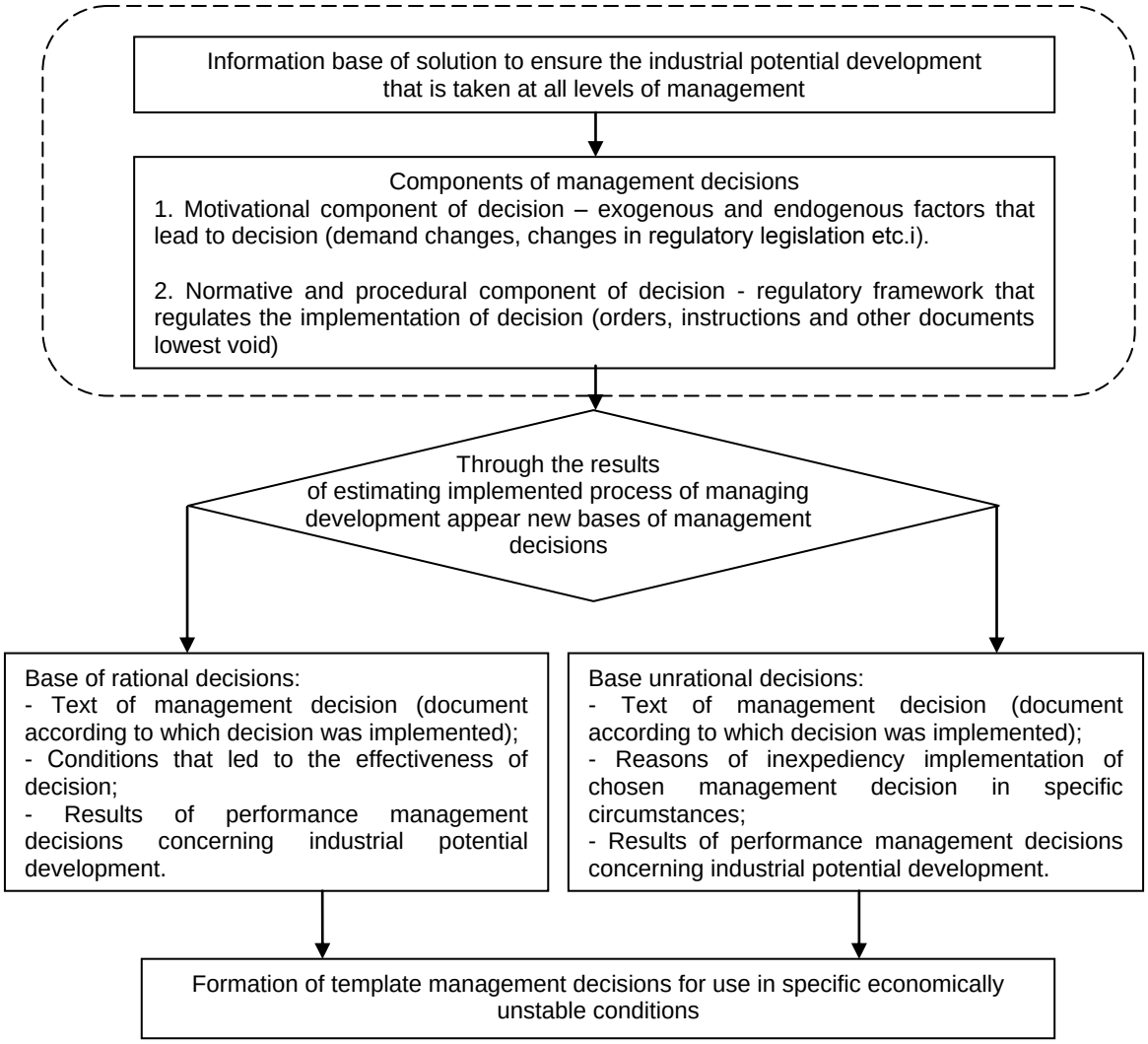
Uninvestigated parts of general matters defining. Available scientific research requires attention to the study of tools for implementing the process approach to managing the development of industrial potential in order to achieve a higher level of objectivity in managerial decisions.

The research objective. The article is aimed at forming a tools for interpreting economic information and integrating it into the main tasks of the process of managing the development of industrial potential in modern conditions.

The statement of basic materials. The use of management tools of the development of industrial potential causes adoption and implementation of a large number of diverse solutions. In order to unify this process, optimize costs, time and material resources in the decision-making process for managing development of industrial potential there was developed model of pattern making, which is shown in Pic. 1. The essence of this model is consolidation of economic information concerning industrial potential development. Implementation of this conceptual model provides detailing of management decisions and administrative documents into motivational, normative and procedural component. This approach isolates the legal side of industrial development management from analytical and attributive information database that is in the basis of appropriate decision.

Format of collecting management information needs taking into account the market conjuncture and exogenous environment in the whole. As an alternative way to implement the bank of management

decisions to establish economic viability there can be format, determined in the second half of the circuit in Pic. 1.



Pic. 1 Model of formation decisions templates for industrial potential development
Source: created by the authors

The peculiarity of this information-flow building lays in the three determinative components of management solution. Firstly, all documents that have validity and provided the implementation of decision should be attributed to the bank of those management decisions. This mass of information can be positioned as the legal basis for management of industrial potential development.

Described complex of legal documents is advisable to back up with information that led to the adoption of specific management decisions. The combination of analytical calculations, conclusions and recommendations from the internal and external experts are accumulated in the second mass of information that complement bank of management decisions by evidence of correctness. Those analytical calculations, conclusions and recommendations are shown in a relevant subject as providing economic stability of engineering company, fixed facts that illustrate necessity of implementation of accepted internal rules and other quantitative or qualitative factors, represented in every format that is acceptable for storage and playback.

The third and last element of management decisions bank is information about effectiveness of decisions. It is the precondition for the formation of patterns. This systematized information is characterized by availability of fixed changes or their absence in response to the object, to which decisions were taken to manage the development of industrial potential. The economic information of this element of the bank of management decisions determines the positioning of specific management decisions to those that have contributed to the development of industrial potential and those that have adversely affected on this process.

The implementation of this conceptual model creates preconditions for systematization management decisions. Gathered together information flows may be used as objectified patterns of decisions in typical financial and economic situations. The main condition of management decisions is permanent collection and systematization of all needed information to form reasonable patterns. The use of this model can be automated and integrated into the document circulation system, which will optimize the cost of resources for its implementation. Detailing and depth level of evidence can be regulated depending on the importance of management decision and scale impact on industrial potential development. Costs on model implementation can be minimized by differentiating functions between different departments and coordination of all operations by one functional manager or department. If there is electronic document flow the implementation of conceptual model can be without significant investment in the first stages of its operation.

By making management decisions it is advisable to focus on procedural component of using management tools for industrial potential development (Pic. 2).

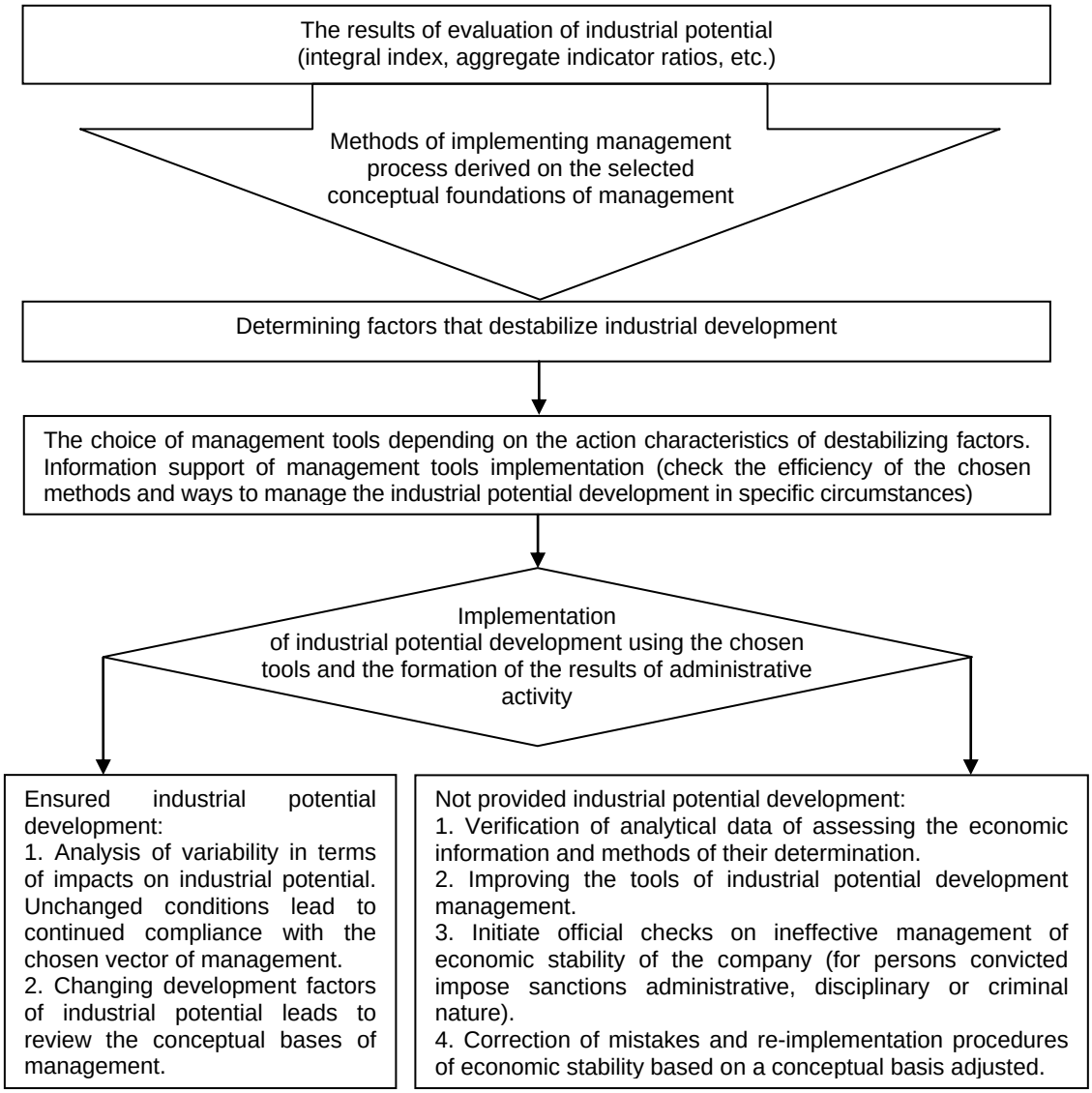
The basic tools for collecting economic information is research of documents, reports, registers which contain information on its resource base. The use of formal information is accompanied by risks of working with unreliable data therefore is appropriate to use economic information from its group with further analytical processing. If possible it is necessary to verify its accuracy by all means available (view the results of an audit or other verification. Including the following: a survey (interview) with the parties that form the internal documentation for relevance documented information). Using instruments for data collection has advantages over informal sources of information on the presence of clear evidence and a more formalized approach for presenting information.

Testing non-documentary information gathering tools (questionnaires) caused by the inability to obtain necessary information from formal sources. In scientific approaches to ensure industrial potential is allowed to use questionnaires, interviews or other types of surveys. In the context of economic stability study, questionnaire and interview programs can be used for expert review of components of economic categories. Professional compiled questionnaire will provide the accurate and relevant for practical use of economic information. The use of expeditionary interview (authorized person through direct communication with the respondent identifies specific expert treatment in respect of pre-existing issues). The procedure of sending relevant questionnaires to experts, including the possibility of using e-mail, is a modern way to implement expert review of necessary aspect of industrial potential development.

Instruments of gathering information is not limited to the methods described above, but formed technique is able to fully ensure the collection of necessary economic information at all stages to ensure industrial potential development. After collecting the necessary data its is needed to systematize accumulated data, which is one of the main objectives of the evaluation. Grouping economic information provides general arrangement of the study or sample data on certain essential features and implementation of sorting elements of economic phenomena. Only after all economic stability properties have been systematized we can form a complete and comprehensive picture of stable and unstable parameters of economic stability. Tools grouping array of theoretical and empirical economic information, aimed at ensuring economic viability can be positioned as grouping methods and tabular-graphical methods. Specificity table-graphical tool lies in its versatility. Methods of table-graphical type are used at all stages of the scientific research of economic categories.

Actually grouping methods can be divided into two groups - simple and complex ways of grouping. If the grouping is made on one basis then it is simple, and if it featured in several - complex. For the

purpose of ensuring the industrial potential development there are following simple methods of grouping: typological; structural; analytical.



Pic. 2. Implementation of system tools in the process of industrial potential development
Source: created by the authors

Typological grouping is the simplest form of the proposed methods, because the structure of grouped phenomena mainly depends on the chosen distribution signs. This method can be used with both attributive and quantitative basis. Easy to use and acceptable results provided typological grouping method active use in the context of the study of industrial potential management. Structural grouping is important for similar sets of economic data and focuses on the study of the composition of the target population. And to determine the relationship of varying features in similar sets analytical data grouping is used.

It is important thing is that in typological, structural and analytical grouping attention focuses not on the number of content features aggregate. According to the above mentioned types of grouping may

be used as attribute and quantitative traits. And to form classification (which is advisable to include more sophisticated methods of grouping) there is a clear requirement under which you can only use attribute features in the context of this method of grouping. In addition to this, classification must have a sustainable character and possess the fundamental characteristics of economic research. Described types of grouping economic information are relevant for researching economic stability and able to provide scientifically based systematization of empirical and theoretical data.

In the process of scientific cognition of industrial potential there are situations when one grouping feature is not enough to describe the content characteristics of the object. So few features are used (simultaneously or sequentially), resulting that the group gets complicated structure. Among the complex grouping we can identify combined and multidimensional methods. Features of a combined grouping allow to highlight with one feature, second level group within the existing group of economic elements. Thus there is a consistent use of signs of grouping. Multidimensional grouping involves simultaneous use of several features in order to highlight groups of similar economic elements. This tool provides the ability to use cluster theory that it is advisable to test in order to ensure the development of industrial potential in modern conditions.

The second tool unit of grouping elements of the economic information is a table-graphic method. Logically, this method can be divided into tabular and graphical way of economic information grouping. Tabular method is universal tool and therefore its essence lies in organizing, sorting and visual presentation of text and digital information received as a result of the economic data collection procedures for the analysis, synthesis, management, modeling or forecasting economic phenomena in tables. Grouping information through tables allows you to:

- organize features, tools, components and other elements of industrial potential (theoretical level of knowledge of economic categories);
- record, summarize, evaluate and implement other necessary analytical procedures of information gathered about the level of industrial potential in the context of systematic data display (practical knowledge level of economic categories).

Tabular method makes it possible to create sequential list of items which is easy to group and rank on the necessary criteria, using the system time and column. This tabular method is a convenient way to systematize the theoretical and methodological grounds of industrial potential development. This is done through clear and informative reflection of theoretical characteristics of the partial structure elements of economic information in the appropriate cells. These cells are linked logically in tabular system and can determine the specific location of each studied object in the structure of industrial potential. The relevance of this method in the context of industrial potential development is in the ability to:

- group objects or tools of industrial potential studies for the necessary signs,
- form the basis of theoretical categories needed to ensure the development of industrial potential,
- evaluate the level of industrial potential development using various analytical methods comprehensively presented in tabular form.

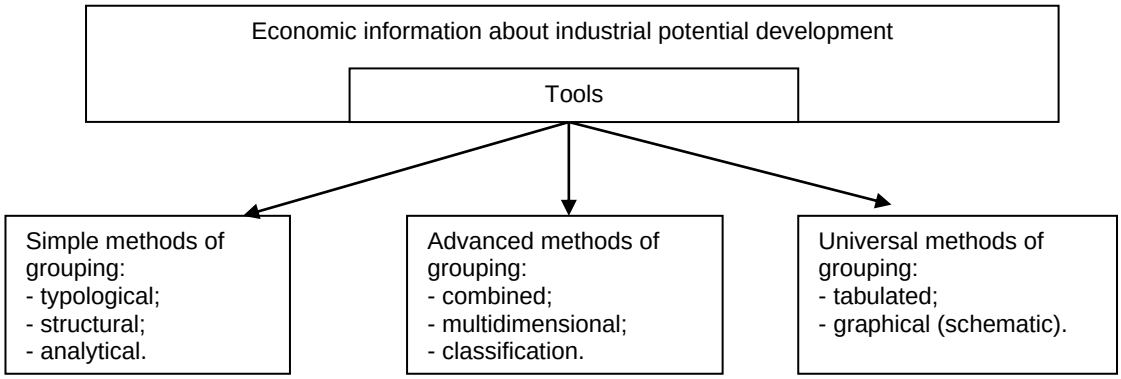
Tabular method is most effective for the formal presentation of analytical and theoretical information about the development of industrial potential. And for individualized image-making is appropriate to use graphical (schematic) approach. Graphical method uses illustrative capabilities of graphic, diagram and logically-schematic way of presenting information. This is for organizing and analyzing information on the development of industrial potential. Graphical representation of economic data involves achieving visibility display trends of quantitative indicators of geometric lines and shapes. The advantage of this method is that it can be used not only to systematize or group performance, but also for analytical and management needs of a wide illustrative potential tool with which you can adequately express the trends of industrial potential in a whole or just its components.

Summarizing information about instruments providing industrial potential development we can highlight the following typology groupings:

- with the conditionally separating character: typological; structural; analytical;
- with complexity: combined; multidimensional; classification;
- by the sequence of implementation: initial; secondary;

- on fine form: tabular; graphic.

This approach to the systematization of economic information includes all major means of economic information and is able to form a complete information base data on the development of industrial potential. For greater clarity, the system can provide clustering methods using logic scheme (Pic. 3).



Pic. 3. Methods of summarizing the economic information
Source: created by the authors

The proposed system of grouping tools has been completed and can be considered appropriate for use in scientific research to ensure the development of industrial potential. Systematized tools contains alternative variants of grouping information flows and provide the conditions to choose a relevant way of combining sets of economic information.

Conclusions. The use of a variety of analytical tools for managing the development of industrial potential is an alternative to build a management system. The effectiveness of the tool directly depends on the range of factors that are included. Developed on the basis of tools oriented towards balanced development tools provide a model with a clear goal - economic sustainability.

The tool based on decision-making templates allows the manager to analyze previous decisions in related issues, their effectiveness and formulate their own decision based on the received information. The idea is simple, but realization requires some time for consuming and engaging IT professionals. Speaking about global business models, this approach can minimized costs of time for routine decisions and increase amount of information concerning complex and extraordinary decisions. Realization of this process could be based on the model proposed in Pic. 2, while refining its own experience and specializing own needs.

The extremely precise structuring and typology of the tool made it possible to distinguish an approach that is potentially capable of improving the management of the development of industrial potential.

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