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## **Взаємодія системи управлінської звітності з прийняттям управлінських рішень: причинно- наслідкові зв'язки в обліку стартапів**

Сучасні значні трансформаційні зміни призводять до швидкого розвитку ІТ, засобів комунікації та збільшення обсягів інформаційного контенту. Відтак для суб'єктів господарювання актуальним є розвиток системи управління, спрямованої на швидку реакцію на відповідні виклики. В цьому аспекті більш важливою стає управлінська звітність, оскільки вона допомагає керівникам приймати оптимальні управлінські рішення щодо найбільш ефективного використання фінансових ресурсів підприємства задля підвищення рентабельності та фінансової стійкості. Метою статті є розробка процесу взаємодії між системою управлінської звітності та прийняттям рішень керівниками інноваційного підприємства задля формування комплексного розуміння про фінансовий стан стартапів. У статті вирішуються наступні завдання: проаналізувати проблеми інформаційного забезпечення управління стартапами; визначити ключові аспекти формування бухгалтерської та аналітичної інформації для закриття рахунків; структурувати процес взаємодії системи фінансової звітності та процесу прийняття рішень керівниками інноваційного підприємства. Розкрито основні вимоги до розвитку системи управлінської звітності. Визначено вимоги до побудови системи управлінської звітності, які мають бути задокументовані у внутрішніх регламентах. Запропоновано комплекс послідовних дій для формування системи управлінської звітності інноваційного підприємства. Процес взаємодії управлінської звітності та прийняття управлінських рішень представлено з визначенням причинно-наслідкових зв'язків подій і процесів, що призводять до підвищення ефективності та продуктивності діяльності підприємства. Виявлено, що форми управлінської звітності повинні розроблятися індивідуально для кожного рівня управління стартапами (операційного, тактичного, стратегічного) і класифікуватися за ступенем деталізації інформації, значимості та ефективності.

**Ключові слова:** управлінська звітність, стартапи, система управлінської звітності, управлінське рішення, облікова інформація.

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## **Interaction between Managerial Reporting and Managerial Decision-Making: Cause-Effect Relationships in Startups' Accounting**

The current significant transformational changes result in rapid development of IT, means of communication, and the increased information content. So, for the business entities is actual to develop managerial system aimed at swift response to corresponding challenges. Managerial reporting becomes more important since because it helps managers to make optimum managerial decisions to use financial resources of enterprise most effectively, to raise profitability as well as financial sustainability. Purpose of the article is to develop a process concerning interaction between

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*managerial reporting system and decision-making by managers of innovative enterprise in order to form the complex understanding of startups financial status. The article solves the following tasks: to analyze problems of informational support of startups; to identify key items of the formation of accounting and analytical information to close the accounts; and to structure a process of interaction between financial reporting system and a process of decision-making by the managers of innovative enterprise. Basic problems concerning informational support of startups were studied. Key demands for the development of managerial reposting system were analyzed. The requirements for the construction of a managerial reposting system that must be documented in internal regulations were determined. A set of sequential actions was proposed to form managerial reposting system of innovative enterprise. A process of interaction between managerial reporting and managerial decision-making was represented with determination of cause-effect relationships of events and processes resulting in the increased efficiency and productivity of enterprise activity. It was revealed that forms of managerial reporting should be developed individually for each level of startup management (operational, tactical, strategic) and classified according to the degree of detail of the information, significance and efficiency.*

**Keywords:** *managerial reporting, startups, managerial reporting system, managerial decision, accounting data.*

**Introduction.** The current rapid progress of IT and means of communication increase information volume; however, its quality degrades. Bulk information loses its message gradually. The most favorable decision for startups progress should be based upon informational support and system analysis of a situation. Optimization of managerial decisions depends upon formation of managerial reporting in the context of innovative enterprise. Determination of cause-effect relationships between phenomena and processes is quite important for the process of decision-making. Management decision-making should rely upon synergism of business accounting information, and managerial reporting information.

Today, managerial reporting cannot perform its key task, i.e. it cannot form holistic idea of situation with startups due to the lack of the balanced, completed, and accurate system of managerial reporting. Thus, it is necessary to develop both theory and methods to form accounting and analytical information to prepare reporting at innovative enterprises which will help manage startups more efficiently.

**Brief Literature Review.** Papers by such national and foreign scientists as Horngren T. [1], Ahrens T., Chapman C. [2], Drury C. [3], Butinech F. [4], Golov S. [5] and Atamas P. [6] concern the problems of managerial reporting structure and accounting. The studies are very important for management accounting formation and progress; however, they do not disclose a problem how direct investment is visualized in startups, and how they are visualized in the context of managerial reporting. Only individual questions arise in papers of certain scientists. For instance, Dudic B., Smolen J., Dudic Z., and Mirkovic V. [7] studied a problem concerning support of direct foreign investment in Serbia, and further progress of young business in the country. Stecenko I., and Lin C.F. J. [8] estimated influence of young business (i.e. startups) and small enterprises on industrial sectors in Taiwan and Latvia. They analyzed the number of startups in the countries as well as people engaged in the promising business line; positive influence on the economies of the states. Slavik S. [9] has analyzed startups with their functioning and environment. The scientist has carried out studies in Slovak Republic and noted that startups are closed-type structures built up on the models relying on the analysis of investment climate

in the country. It is very important thing that startups do not reckon on governmental support and their cooperation with large companies is inessential. They rely mainly on their self-strengthening as well as on private investment attraction. Davila A., Foster G., and Gupta M. [10] carried out studies as for relationships between venture capital availability and increase in startups as well as influence of various factors on their increase. Melnychuk H. and Marchenko O. [11] have analyzed and classified startups according to certain characteristics relying upon the development stages of startup lines in different economy sectors. Ruda M., and Lahoda O. [12] have analyzed social degree of business activities as for general economic prosperity provision. Besides, a role of positive practices of social entrepreneurship aimed at the progress of Ukrainian society has been substantiated. Legenchuk S. studied informational support of joint investment for accounting system [13].

The analysis of scientific sources has demonstrated that rapid development of startups, being a potential business line, should involve the development of theory concerning informational system formation.

**Purpose of the article** is to develop a process concerning interaction between managerial reporting system and decision-making by managers of innovative enterprise in order to form the complex understanding of startups financial status.

**Main Results.** Annual study by Global Entrepreneurship Monitor (GEM), carried out in 37 countries with 92 % of the world GDP, has informed that 286 million people (i.e. 12 % of labor power of the states) are either engaged in setting up of startups or run the new business [14]. In 2017, Ukraine was 7<sup>th</sup> among 137 world countries in terms of quantity of startups, and their rates of growth; it left behind South Korea and Estonia [15]. Startup is innovative enterprise characterizing by short-term operating activities. Most of all, it is at the stage of its formation, and development. Its basis is innovative, i.e. such a business is set up which was not in operation before. Also, startups differ in the fact that their rapid growth is restricted by the limited set of financial resources [16]. Hence, such a business needs attraction of investors who should be informed constantly about financial situation of the enterprise as well as about investment profitability.

In the context of managerial reporting, information is the key resource helping executives do their job providing internal environment as well as external one with informational means to be effective. Informational support of startups involves the development of specific reporting system which should differ from other types of reporting in its task, content, procedures, and specific internal users as well as external ones; moreover, it may also be additional informational source, and the only informational source to solve multidirectional problems connected with formation, development, and performance of the young enterprise.

A system of managerial reporting of startups needs the development of theory, and methods to form accounting and analytical information to draw up the managerial reporting. In the context of each innovative enterprise, the system of managerial reporting should be developed individually for every management level; and it should be classified according to the degree of the information detailization, its importance, and efficiency. Such a system of managerial reporting will provide management of startups with the required adequate information concerning its production and financial state, and other information which is not reflected in standard informational sources but registered properly, i.e. in such a way to be convenient to make managerial decisions. The above is important in the process of dynamic response to the needs of further development of innovative enterprise.

A process of managerial decision-making also solves problems of search, identification, classification, harmonization, and selection using methods of analysis and synthesis, induction and deduction. Thus, the interaction process helps managerial reporting perform its basic function, i.e. provide accounting and analytical information to make decisions concerning:

- development tendencies of strategies through planning and budgeting;
- optimized use of resources through drawing up intermediate reports concerning performance and analysis of deviations from the schedules;
- performance monitoring, and control of both intermediate and main targets of the enterprise.

A structure of managerial reporting system should have such a system to be understandable for its users; moreover, they should be able to apply it effectively. Approaches to develop such a system develop upon management needs, structure of accounting and analytical system of an enterprise as well as upon its size.

Certain innovative enterprises use only financial records to make managerial decisions. However, the fact that such enterprises function under the conditions of uncertainty, followed by the increased risks, stipulates the necessity to make managerial decisions aimed at the development of sole informational space which includes both external integrated financial reports, being formed in accordance with the current legislation, and internal managerial reporting, being formed in accordance with internal needs of the innovative enterprise.

Making a system of managerial reporting balanced and corrected is a continuous procedure since external

environment and internal environment in the neighborhood of an enterprise vary; certain changes take place in IT, in people, and in their thinking; moreover, strategy of enterprise varies and need in new data may arise. Managerial reporting structure is a system experiencing constant changes; it develops together with enterprise; and it is adapted for the needs of certain authorities. Managerial reporting involves all necessary information as for the control over each process at the enterprise while holding specific position in the process of managerial reporting. Managerial reporting depends upon a system of accounting analytical reporting; levels of assets detailization; and profits, and expenditures in the process of budget preparation. Moreover, it is multivariate experiencing more changes than, for example, methods of cost accounting, and methods of prime cost calculation.

Mission of managerial reporting of startups, functioning under the conditions of uncertainty and characterizing by the increased risks, is to process potentials for adequate identification of all the expenditures of a chain of sequential components of project development, and implementation of the risky innovative project according to responsibility centers, and a source of their covering at the expense of the risky capital investors.

Construction of such a reliable system of managerial reporting at an enterprise is a pledge of correct managerial decision-making at all levels as well as of achievement of high financial and economic performance indicators. To implement managerial reporting system successfully, new enterprise should form substantiated classification of managerial reporting since it will help understand different approaches to its generating, submitting, and use.

Submitting form of managerial reporting may be either papery (i.e. tables, graphs, texts) or combined (i.e. electronic, oral, video and audio format). Form of managerial reporting depends upon the number of decisions made by managers of corresponding level. Users may submit the reporting either personally, or e-mail it, or send by post.

Managerial reporting involves different types of activities: purchase reports, marketing reports, and production reports. In the context of the submitting level, managerial reporting is divided into reporting for top managers, line managers, and down managers. Managerial reports may differ in the amount of information while being summary reporting, reporting of responsibility centers, and reporting of certain departments. Managerial reporting may be formed as required, or be periodical, for instance, weekly, monthly, quarterly, or annually. In the context of the represented information amount, the reporting is divided into complete accounts and abbreviated ones. Depending upon its content, managerial reporting is synthetical, and analytical being more detailed.

Managerial reporting is of the varied social implication: reporting on social protection of staff; or reporting on environmental protection. To make managerial decisions (depending on their types) reports to

substantiate operating, tactic, and strategic are separated. Managerial reporting is intended for internal users, and external users. Moreover, it can also be of different purpose: informational, routine, supervisory, and analytical. The reporting is of different confidential levels, i.e. managerial reporting may be intended to be used by a particular individual, or group of individuals, or all related parties [17, p. 10].

Analysis of scientific sources as well as practices concerning startup setting has helped formulate following requirements to develop a system of managerial reporting which should be recorded in the internal regulations:

1. Almost 90 % of information, getting to a human brain, is visual information. That is why it is acquired and understood much better. Tabular and graphical information is processed by a human 60000 times faster than the data in textual form. That is why the information, represented in managerial reporting, should be either of tabular form of graphical one since it is understood and analyzed in a much easier way.

2. If reporting is submitted in electronic format, its efficiency increases since the information is delivered not only during normal working hours; moreover, less time is spent to process it, and to analyze.

3. Managerial reporting should be structured in such a way to enable users to get the required answers for all procedural and organizational questions concerning a production process.

4. Routine information, reference information, normative information, and actual one of synthetic accounting and analytical accounting can be used to prepare managerial recording.

5. Nonrelevant information, i.e. information involving insufficient data, should be avoided for use in managerial reporting since it may result in erroneous decision-making.

6. Terms of managerial reporting submission are not specified. However, reporting to make operative managerial decisions should be drawn up more frequently to compare with reporting to make tactic of strategic decisions taking into consideration the terms when information is required to make efficient managerial decision.

7. Managerial reporting is to be drawn up not only at a set date but also by request, i.e. when it is needed to make managerial decision. Otherwise, it loses its pragmatic meaning. If information is delivered behind schedule, it becomes of little use for managerial purposes. Hendriksen, E. and Van Breda, M. connect timeliness with relevancy. Nevertheless, they believe that timeliness cannot guarantee relevance when relevance is impossible without timeliness [18, p. 93].

8. Managerial reporting of operating level of management of an enterprise involves the most detailed information. The most compressed and generalized information is represented in the reporting of strategic management level.

9. Managerial reporting should contain not only deviations from the scheduled, normative indicators but also calculation of influence of the deviations on the

results of activities of organization department of the enterprise [19, p. 3].

10. Each managerial reporting has to be meant for a certain manager, and a certain management level in accordance with hierarchy, and with adherence to confidential environment of the enterprise.

11. Pushkar M. thinks that the number of managerial reporting should not be less than the number of observation posts (theoretically, one post can draw up several reports synchronously if it is required) [20, p. 320].

12. Common forms of managerial reporting should be available for each enterprise taking into consideration specific nature of the a new enterprise and its characteristics.

A number of sequential actions should be implemented to develop a system of managerial reporting of startups:

1. To determine centers of financial responsibility for the analysis of the enterprise financial structure;

2. To appoint those being responsible for drawing up of the reporting forms;

3. To define terms for managerial reporting submission;

4. To recognize terms to submit managerial reporting;

5. To draw a scheme as for managerial reporting, and identify owners of the input information;

6. To authorize responsible coordinator, i.e. to confer him eligibility to get information from the owners;

7. To identify information users while determining conventional limits for them as for the information obtaining.

Relying upon the available scientific achievements concerning the problems of selection of forms as for managerial reporting submission, it is necessary to specify key principles which should be the basis for a system of managerial reporting of a young enterprise. Fig.1 represents a process of managerial reporting interaction with a process of managerial decision-making:

– All the forms of managerial reporting should be concrete and targeted;

– All the forms should involve helpful information only; moreover, the information should be reliable, well-timed, and proven as for managerial decision-making;

– All the forms of managerial reporting should not contain irrelative data; the information should be systemized, concrete, and sufficient for managerial decision-making; and

– Expenditures, connected with managerial reporting drawing up and implementing, should not exceed its economic effect.

Managerial reporting forms should be developed individually for each managerial level of a startup (i.e. operating level, tactical level, and strategic one); and they should be classified as for their detailization level, its importance, and efficiency. In the context of managerial level one (i.e. operating level) it involves reporting of sales department, financial and economic department, production department, a department of planning and risky innovative project management, and marketing department. In the context of managerial level two (i.e.

tactical level) it is reporting of responsibility centers: profit center, revenue center, expenditure center, and a center of venture investment. In the context of managerial

level three (i.e. strategic level) it is total consolidated reporting. Hence, managerial reporting system should be restructured.

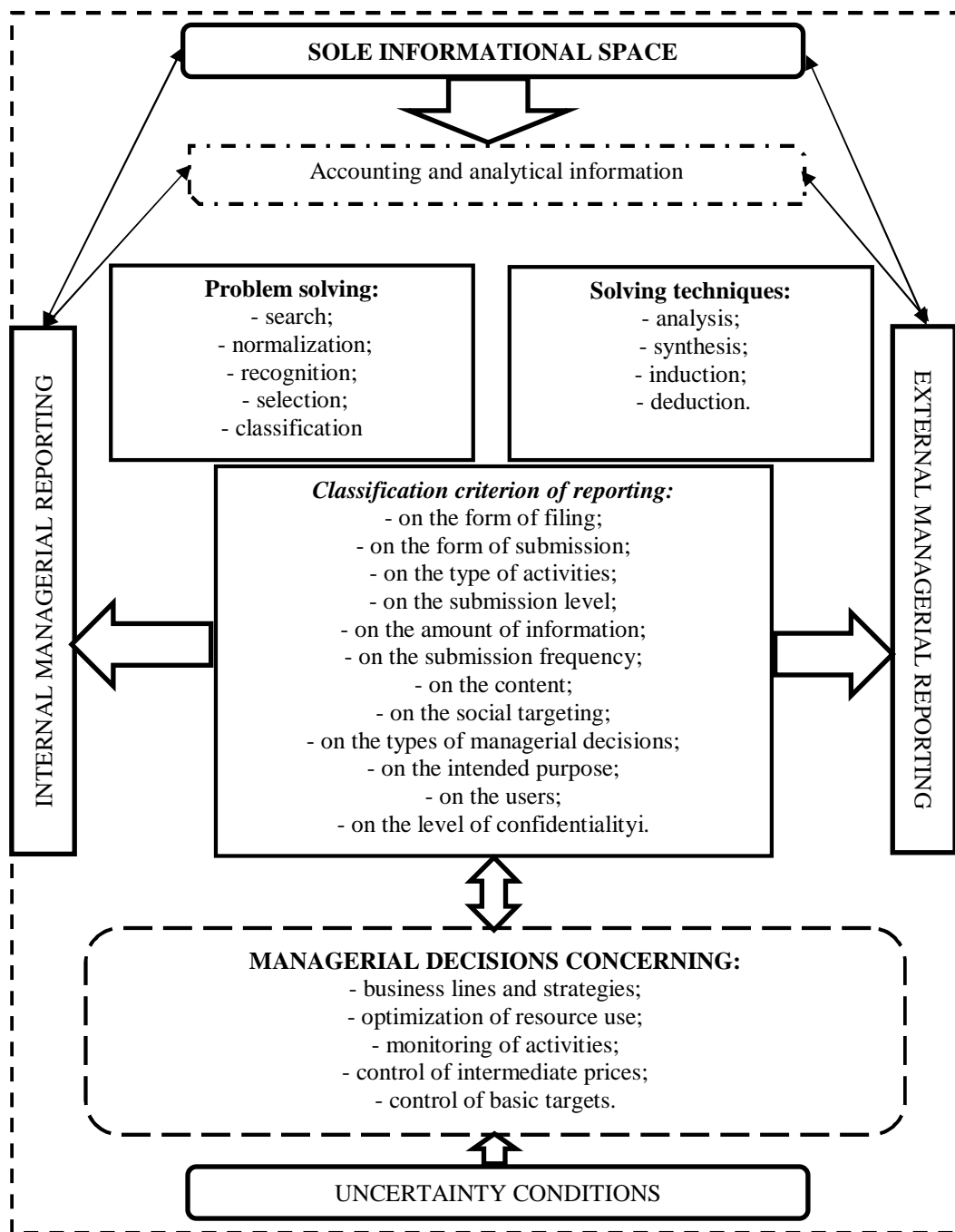


Fig. 1. Interaction between managerial reporting system and managerial decision-making

Source: proposed by the authors.

The development of reliable managerial reporting system at any enterprise is the priority of adequate and timely managerial decision-making at each management level which creates prerequisites for the achievement of high financial and economic efficiency.

**Conclusions.** Progress of startups as well as their further management depends upon informational support, and systematic situational analysis. Managerial decisions are made basing upon informational analysis of a situation. Managerial decision-making depends on the

developed structure of managerial reporting. The majority of managerial decisions are made relying upon financial accounting only.

Formation of managerial reporting of startups depends upon accurate identification of expenditures during risky innovative-investment project implementation followed by the increased risk due to uncertainty conditions.

The study has analyzed and formulated basic requirements as for the development of managerial

reporting system. Sequential actions have been proposed to develop such a system. Basic principles, the managerial reporting system should rely upon, have been determined.

Crucial problems, concerning the issue of informational support of startups, have been analyzed. That made it possible to identify key items as for the formation of accounting and analytical information required to draw up managerial reporting. Interaction process between managerial reporting system and managerial decision-making, relying upon sole informational space, involves techniques aimed at problem solving as well as classification reporting features effecting managerial decision-making in the context of different business lines of startups.

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