

Financial potential in connection with the implementation of innovative projects – an assessment model

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Abstract: The aim of this paper was to develop a comprehensive procedure for evaluating the financial potential of a company due to implementation of innovative projects. The proposed model allows assessment of the financial potential with regard to the existence and quality of financial resources and effects of innovations on the financial stability. Presented model helps to avoid possible freezing or even loss of funds which in practice means more efficient use of financial resources and it also could be used to evaluate the impact on the financial stability of the company during innovation process. To prevent possible financial problems which may occur due to realization of particular innovative project, the company should delist those projects from the list of considered alternatives that do not conform to the financial potential, because the company is currently not able to implement or hold them respectively.

Keywords: innovative projects funding, innovation potential, financial potential, financial stability of the company

JEL classification: G32, M21

1. Introduction

One of the most important goals of the Slovak economic policy is to stimulate economic growth and ensure sustainable economic development. There is often witnessed under the current circumstances an active transition from industrial economies, where the effectiveness is based on use of capital, to the post-industrial economies, where the effectiveness is assessed by development and knowledge. Nowadays, for companies whose activities are based on use of fundamental science results, information and knowledge take a lead position. In connection with this fact, importance of innovation activity and innovations in economy dramatically increased (Kajanová, 2008).

An essential part in development of a company is therefore its innovation activity. Only companies that produce and offer products meeting ever changing customers' demands can survive in a very competitive environment. Development of science and technology and in many cases substantial investments toward science and research in order to gain a competitive advantage often force managers not only to know problems of established processes in their own companies, but also adjust the production process (or even other business activities) to new trends or needs of customers. This usually means a high cost associated with the implementation of innovative projects.

Current status of the business environment in connection with innovation activity is well illustrated by Czech authors Heřman and Horová (2009, p. 1), who argue that *"to succeed in today's turbulent environment can only such organizations which due to their continuous marketing research and especially vigorous innovation policy are able to fulfill specific and very diverse customer requirements based on their production program. The goal of management is to interconnect technical and managerial level of the entire production*

process and ensure the ability to formulate innovative settings. At the same time managers need to understand the process of creating innovations, know their resources and time horizons of solutions." The possibilities and abilities to innovate in all aspects become increasingly important feature of the company. Therefore, only such company that is perfectly aware of its abilities and act through this knowledge may be successful.

Modern economic theory suggests that innovations are considered as a source of development only if they are effectively and actively used. For the effective integration of new technologies in economic activities it is an important task to preliminary assess the financial potential of a company followed by continuous analysis.

2. Financial potential as a part of innovation potential of a company

Innovation potential is generally considered as an opportunity and also ability to innovate. On micro-level of economy, innovation potential influences primarily innovation activities of an enterprise. Simultaneously, companies significantly affect the innovation potential of the country (macroeconomics).

Bondareva (2012, p. 118-119) states that "*the process of forming an effective system of innovation management depends on level of innovative potential i.e. from the possibility of achieving those innovative goals. The realization of these goals is the way to achieve high profits in the long term, to consolidate and to increase competitive opportunities in the market and to resolve crisis issues and existence problems of a company as a whole. The higher the level of innovation potential, the more successfully could company face a crisis situation.*" Thus, the ability to innovate represents a significant competitive advantage, to what Šimková (2006, p. 401) also inclines by statement that the innovation potential of the company is just "*the company's ability to use the knowledge and experience of their staff to increase its competitive advantage.*"

Innovation potential as a factor ensuring the growth of any system through introduction of innovations was explained by Christopher Freeman who defined innovation as a system of activities aimed at development and especially the use of entire production of economic, social, organizational and disposable potential.

Thus, the innovation potential means a summary of business opportunities and the ability to innovate. Ultimately it determines the innovative activity of the enterprise. These options include:

- **Intellectual options** discuss the technological documentation, patents and licenses available for a company or individual business unit, inventions, inspiring models, industrial designs and prototypes.
- **Material options** where machinery and research, experimentation and laboratory equipment belong.
- **Financial options** aimed at financing of innovative projects. This mainly includes own and external resources and investment, budget and grant opportunities of a company. This category actually represents the financial potential of a company.

- **Personnel options** involving human resources of a company - innovators, qualified staff willing to innovate, scientists, researchers and experts in the field of marketing, planning and forecasting.
- **Infrastructure options**, i.e. their own research institutes, design departments, quality management, and so on.
- **Additional resources** needed to improve the results of innovative activities (cooperation with scientific research centers, experience in strategic project management, etc.) (Bondareva, 2012).

As reported by Kováč and Sabadka (2004, p. 4), "*the innovation potential of a company is its internal characteristics. However, objectified indicators, allowing identification of obstacles hampering the innovative development of a company as well as the strengths needed for ensuring competitive advantage, are necessary for its improvement. Main issue of evaluating the innovation potential of enterprises is currently addressed in two methodological directions. The first direction represents the implementation of innovative issues into integrated measures of business performance and the second direction specializes in assessing innovation potential as a specific component of corporate responsibility.*" The authors also present model for the construction of the innovation potential within a company consisting of ten steps – modules: research and development, new products, technological flexibility, high-tech, organization and human resources, information technology, innovations funding system, transfer of innovations, partnership and cooperation, news system and innovative technology.

Each of these areas must be thoroughly examined and, if necessary, adequately strengthened. Companies that achieve high ratings within these categories are usually characterized by a high level of innovation potential.

As previously mentioned, **financial potential** constitutes one of essential components of innovation potential. Like the definition of innovation potential implies possibilities and abilities of a company to innovate, the financial potential in connection with the introduction of innovations summarizes funding options of this company for the implementation of innovative projects. Wider innovative opportunities are available with higher level of financial potential.

Economic literature often uses the term **internal financial potential**, which is usually defined as "the ability of a company to create financial surpluses from operating activities used for financing its needs." (Sedláček, 2010, p. 75).

Generally, available liquid assets that an enterprise can create from its own activities or obtain from external sources affect the level of financial potential. Despite of this simple statement, financial potential can be evaluated in several dimensions. The article is focused mainly on those types that are related to corporate innovative activities.

The financial potential with respect to the financial stability of a company is based on available current assets. Under such assets surplus of liquid assets are understood while the financial stability of a company is secured. For example, if the financial stability of a particular company relates only to ensuring a required level of liquidity, free assets are those that the company has available after securing at least a minimum acceptable level of liquidity.

The company's ability to acquire available short-term assets impacts on the level of **overall financial potential**. Those assets, however, should be considered as a homogenous mass. The level of overall financial potential to a particular moment results from the current amount of these assets.

Net financial potential is based on free cash and cash equivalents generated from overall operating, investing and financing activities of an enterprise. Net financial potential characterizes better the financial opportunities than the overall financial potential because there is no need to count on a certain period of time that would be needed to convert the less liquid assets into money. Deeper cash flow analysis allows definition of the financial potential at lower levels:

- The level of **internal financial potential** of a company depends on available amount of cash and cash equivalents generated from company's operating activities. This indicator is mainly used for manufacturing companies.
- The amount of net cash and cash equivalents obtained from investment activities only reflects the level of **net financial potential created by investing activities**.
- Excess or shortage of available cash received from financial activities defines the level of **net financial potential created by financial activities**. However, increasing the financial capacity of a company by this way is characterized by a certain risk because cash flow from financing activities is most commonly associated with the involvement of borrowed funds.

The amount of cash and cash equivalents increased by the maximum amount that an enterprise can acquire through long-term loan, determine the **maximum amount of net financial potential of the company**.

New types of financial potential could be defined by involvement of additional restrictions in the form of limit values for other ratios. However, the financial stability of a company is mostly combined with liquidity and debt ratios only, previously mentioned types of financial potential are usually sufficient for evaluation process.

In connection with the innovation activities of enterprises the financial potential is defined as ability to acquire such amount of net current assets that could be used to finance an innovative project (or a combination of projects). It can be further divided into:

- **The financial potential with regard to the readiness of project implementation**, i.e. the ability to obtain necessary amount of net current assets (mainly in the form of cash) used to pay off all expenses in the initial phase of project's life cycle.
- **The financial potential in connection with the maintenance of an ongoing project**, so the ability to continuously acquire resources to cover expenditures related to the project in subsequent phases.

3. Evaluating the financial potential of the company

It is appropriate to follow a certain structure when monitoring and evaluating the financial potential of the particular company. Such process could be expressed through the following points:

1. Define the evaluating dimension:

- a. The financial potential identification due to implementation of the particular project (or a group of projects).** Main goal is to examine whether the company is able to finance one or more consecutive or complementary projects.
- b. Multiple project alternatives assessment and selection of those that are feasible.** Analysis of individual projects within the set of alternatives and selection of those that could be funded without financial stability distortion.

2. The financial situation identification. When the goal (i.e. dimension) is selected and the project's documentation is prepared, it is necessary to identify and to forecast the financial situation. Horizontal analysis of the most common financial indicators such as liquidity, debt, activity and profitability ratios and even non-financial indicators with direct impact on the financial position (such as market share, competitive position, etc.) are mainly used for this purpose. It is important to choose these characteristics accurately due to business activity. For the financial situation forecast there is a wide range of evaluation models differing in fields of application and informative value. Management should be able to choose such type that shows the best results in the long-term. Even if the financial situation assessment of a company is the first step in this process, it constitutes only approximate indicator of financial possibilities.

3. The financial stability evaluation. Due to absence of universal financial stability definition, it is necessary to identify areas that affect healthy and stable functioning of the company the most. The stability in finance reflects a well-functioning enterprise and it is a prerequisite for creation and growth of financial potential. Assessment of financial stability generally allows better results according to the readiness of project implementation than the identification of financial situation, since the overall financial position should be defined more accurate. If the company is classified as financially stable with a good financial situation, the level of financial potential could be examined. Otherwise, it is advisable to reconsider adoption of the project or to reduce the set of alternatives.

4. Evaluation of the financial potential with regard to the readiness of project implementation. Knowing the extent of current financial possibilities is the key information for innovation process. If a company does not know its own financial capabilities and in spite of that will start a large innovative project, it could result into disruption of financial stability and emergence of other problems caused by this fact as well. Current financial situation of the company and its financial stability determines the important role during the financial potential evaluation process. The amount of net current assets that a company is able to allocate from various sources is a prerequisite for defining the level of financial potential. If it is observed that the company could not finance the project due to disruption of financial stability, it is recommended not to innovate by this way, thus to reject

this option, or consider other, less costly alternatives. The level of financial potential with regard to the readiness of project implementation (or a set of projects) therefore answers the question whether the company is capable financially secure this project at an early stage of its life. If the financial stability is defined more sophisticatedly, emphasis is on comparison of the current period without the project and after its implementation. The difference between those two states determines whether the enterprise has the financial potential or not.

5. Evaluation of the financial potential in connection with the maintenance of an ongoing project is very important step in describing the financial possibilities of a company in the future. According to the type of financial potential, proper financial statement should be used as a data source. For net financial potential evaluation, the cash flow statement is mainly used. On the other hand, the evaluation of overall financial potential requires information from balance sheet. If the company would not be able to finance the particular project during its life cycle, it is necessary to test another alternative characterized by lower operating expenditures. The evaluation procedure is essentially the same as in the previous paragraph with the only difference that it is mainly based on projected financial statements. Attention must be, however, paid to the forecasted time period due to declining predictive value. This implies that in case of long-term projects, sustainability should be evaluated continuously with short reaction time to the revealed negative trends.

6. Evaluation of the results – selection of variants that a company could finance without disruption of its financial stability and rejection of others.

The previously mentioned procedure is also shown in the flow chart form (figure 1).

Advantages of the proposed procedure are as follows:

- Complexity of the evaluation.
- Global assessment of several financial areas of the company.
- Accessibility and ease of input data processing.
- Unambiguous interpretation of the results.
- Excretory system in individual, consecutive, steps is used during the evaluation of several project alternatives.

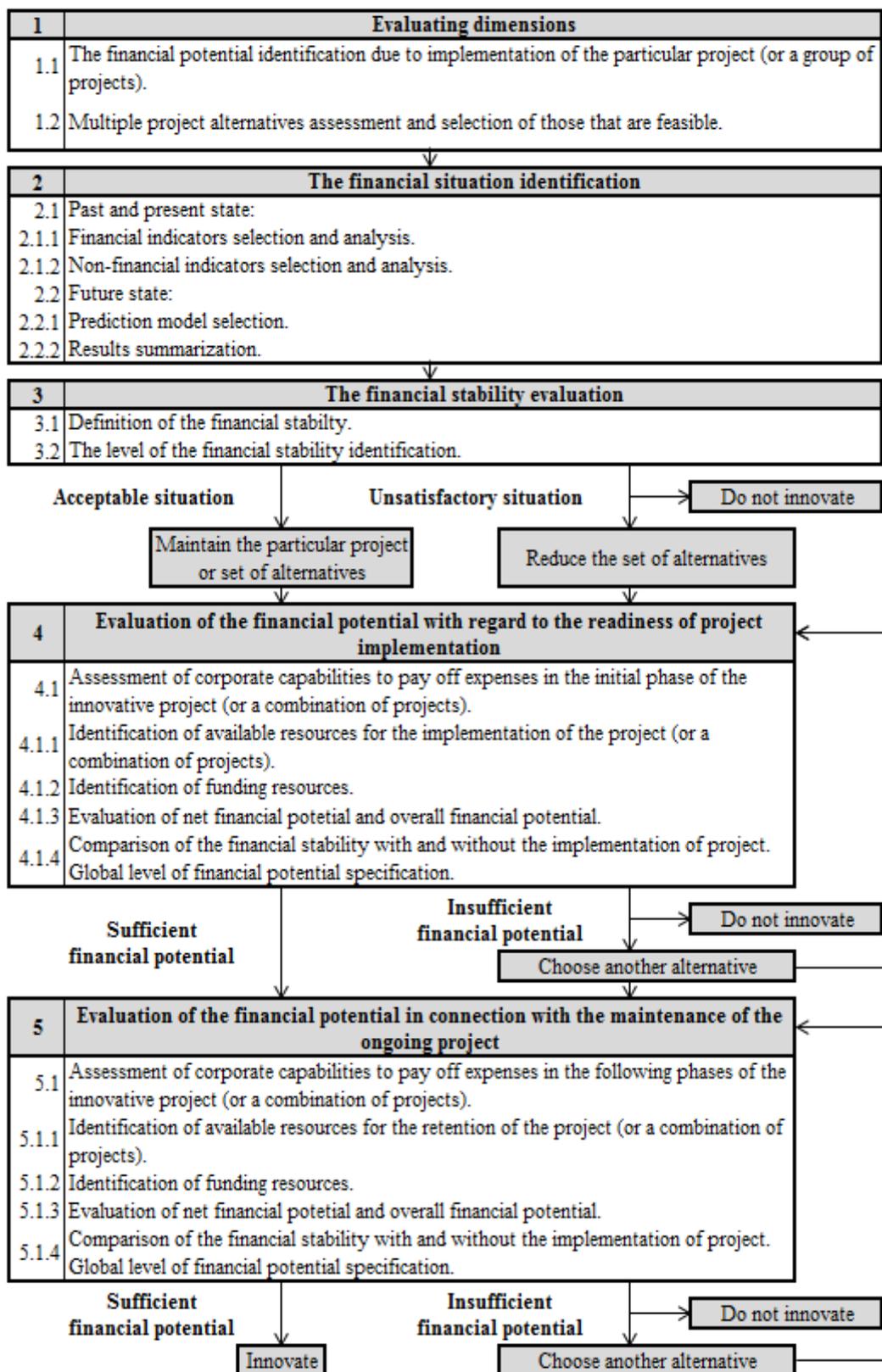


Fig. 1: Financial potential in connection with the implementation of innovative projects evaluation algorithm

Source: own processing

On the other hand, the main **restrictions** are summarized as follows:

- The fact that only the ability of a company to secure financing for a specific alternative (project or a combination of projects) is evaluated. Presented model does not evaluate economic efficiency of those projects, although this is reflected to a certain extent by analyzing the financial situation of the company.
- Lower predictive value if the financial stability is defined more in detail.
- More time needed for larger set of considered projects due to an iterative evaluation process.
- Lower informative value when determining the financial potential of the company in connection with the maintenance of the ongoing project (or a combination of projects), since the credibility decreases over time.
- Better results are obtained during evaluation of capital-intensive projects, since projects that do not require large amount of funds for their implementation and maintenance usually affect the financial stability only slightly.

4. Conclusions

The most serious barriers to innovation from the view of corporate finance are summarized as follows:

- High innovation expenses.
- Lack of equity.
- Unavailability and lack of external resources needed for innovative projects financing.
- High economic risk.

Lack of capital causes the major problems to innovation activities of Slovak companies. As shown in practice, Slovak banks disavow from funding the innovation activities especially for micro and small enterprises due to uncertainty of repayment. On the other hand, ability to innovate are crucially important for small and medium-sized enterprises due to building and maintaining of their competitive position because, as Šúbertová (2010) states, "small and medium-sized enterprises in Slovakia contribute continuously to the creation of social relations as well as to physical, social and societal application of different population groups. Simultaneously, a significant share of added value comes from this type of business."

For Slovak businesses it is usually difficult to access alternative forms of funding for innovative projects, such as venture capital or crowdfunding, due to a lack of information and development of these forms. As a result of unsuccessful attempts to start venture capital support from public resources as well as lack of capital markets and low interest of private investors, the equity financing in Slovakia is still underdeveloped. These conditions, along with other obstacles create a system of financial barriers to innovation development in Slovakia.

Persistent problems with the availability of external capital are also indicated by the fact that companies situated in Slovakia innovate primarily using their own, but often insufficient, financial resources.

In this context, the proposed model provides an opportunity to review the financial potential of the company and adjustment of its innovation strategy still in the decision-making process.

However, interpretation of these results requires knowledge of financial analysis and the ability to properly assess them. It should be noted that the calculations are based on various pre-defined limits of financial ratios what is usually individual for each enterprise. The evaluator himself must assess the level of changes, the character of indicator, or to consider the circumstances taken into account by calculations only indirectly or even at all, and on this basis to make the final decision.

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