

IT UTILIZATION RATE WHEN DETERMINING CORPORATE STRATEGIC GOALS

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Abstract: *This article assesses current level of the information support tools for a specific area of the corporate process. Under this area we understand strategic planning and determination of corporate strategic goals. The mentioned area is perceived quite differently by the plant owner than for instance employee of the same company. But the fact is that this area is the major axis that passes through the entire corporate structure and, if set correctly, it is the very key to success and especially to long-term development and stability of the company. From the historical point of view, creation of corporate strategic objectives was a certain foretelling from the crystal ball for a number of managers, depending on the corporate life cycle phase, or stereotypical raising the goals. Based on this way created corporate strategic goals, it is not surprising that fulfilment of these objectives reflects the reality rather by accident in many cases. Creating truly realistic strategic goals of the company with respect to its life cycle is a much more complex process and therefore one wonders at the low level of responsibility applied by certain managers to it.*

Keywords: *Information technologies, strategic goals, strategic plans, company / plant, software, analysis*

JEL Classification: *M15, M21*

Introduction

Nowadays a relatively large number of information support tools is available in the market for the majority of processes used by the plant depending on its focus, i.e. the manufacturing, trading or services-oriented plant. These tools have been created and developed gradually in conformity with development of the information technologies intended for corporate support. These tools were at first specialized in a specific process, e.g. production support, sales records, warehouse management, economics, etc. In the course of time the tools for management of the company as a complex whole or large parts of it have arisen. The tools of e.g. CRM, ERP, SCHM, MIS type have thus appeared. But the development has not stopped there, and today we are experiencing the stage of implementation of the tools such as BI, integration platforms and other integrated tools. If we consider this area creating the very top level of the IT pyramid of each individual company, we can establish that the whole mosaic of the information support tools misses one specific part, intended only and exclusively for formulation of strategic goals and objectives. This tool should become an indispensable part of information support for the managers at all levels of the organizational structure of the company. If you want to commence the research focused on determination of the potential of utilization of the information support tools for identification of the corporate strategic goals, it is at first necessary to define what are the strategic goals of the company. While searching for the professional literature sources, I have discovered a number of papers devoted to the issue of corporate

strategic goal planning. This topic is mentioned in this area in connection with all sorts of processes, cycles, and other possible links with the company. But when seeking for the information support tools applicable for determining the corporate strategic goals, I am unable to find any relevant outputs. It was one of the reasons for elaboration of this article dedicated to this issue.

1 Problem formulation

1.1 Strategic goals of the company

Each company was established with a certain vision of its owners, and realization of this vision should be its mission. Keřkovský (2015) believes that not only determination of the goals and the ways to achieve them, but also the correct definition of the starting position is important for successful conduct of the organization. The same is also applicable to assessment and consideration of the current position and direction of the competitors, including objectives of their clients and suppliers. Knowledge of the latest state and development of the environment is an inevitable feature for effective internal setting of the organization. According to Dedouchová (2001) strategic goals are the future state to be achieved. They are formulated at the top level of the organization. What is the vision? Why do the companies exist, what do they want to achieve? A number of examples of why the companies do exist can be quoted. And it is certainly not just making profit and making money. On the contrary, profit making is conditioned by the quality of products and services as well as by satisfaction and loyalty of customers and employees, market position, ability to develop itself and respond to changing market conditions and by many other factors. Practical use of strategic goals in the organization is crucial to clarify their vision which is specified more precisely. Strategic goals of the organization are usually defined by its owner or the top management, which is also responsible for achieving them. The strategic goals specify the vision more precisely and assist the managers in managing and motivating the employees organization-wide (Leon-Soriano, Munoz-Torres, Chalmette-Rosalen, 2010).

Strategic goals and their formulation are the very basis for:

- Corporate organization, structure, measurement and assessment of corporate process performance,
- Management of corporate information and information systems,
- Human resources management, determination of responsibilities and competencies, performance management (Kourdi, 2011).

According to Cimbálníková (2012), strategic goals are understood the future desired state, which the companies try to reach through their own activities and existence. These strategic goals are determined by the top organizational and strategic unit of the company. Determination is based on the strategic analytics and on formulation of strategic plans. The goal achieving degree is the most important parameter for assessing success or failure of the company. Correct setting of strategic goals is very important, as stated Cimbálníková (2012) in her book, mainly for the following reasons:

- Goals are important for assessment of corporate activities,

- Goals create the environment for defining competence and responsibility of individuals
- Goals enable to create the right conditions for cooperation of competent decision makers generating and defining the conditions for achieving the raised goals,
- Goals determine position of the organization with respect to the environment and assist in integrating into it.

According to Souček (2003), strategic goals are focused on four groups:

- Regional (corporate social responsibility),
- Personnel (professional growth and improvement of qualification, indicators for assessing performance),
- Client (development and growth, effectiveness focused on maintaining quality and reliability advantageous conditions of funding),
- Owner or founder (economic and performance indicators, profitability and cash flow stability).

Identifying strategic objectives is essential for the ability to plan effective and long-term sustainability of the organization with respect to uncertainty of the market and the environment. According to Fotr (2012), achieving the goals is conditioned by the necessary coordination and synergy of various professional structures of the company and their specialized activities.

1.1.1 Intentions

Business objectives define the intentions, which shall be achieved within the project. It happens sometimes that intention of the project is confused with the product, but product is the outcome project activities. Such confusion leads to poor understanding of the whole project and the latter can thus become unsuccessful. So, when defining the project, it is important to specify very carefully the intentions that lead to execution of the project, namely both the primary and the secondary ones; the secondary intentions are not decisive for project definition and will be met through fulfilment of the primary objectives. These intentions should be in compliance with general conceptions of development and with capabilities of corporate particular personnel structures up to the management, since this leads to common orientation of the whole team on achievement of the primary goal. This conception requires, in the phase of intentions preparation, very good and clear mutual communication of the particular structures - including the feedback to the management. (Muller, Jugdev, 2012).

1.1.2 Critical success factors

To achieve the goals, it is necessary to determine the main areas that are very important for their fulfilment. These areas are usually considered as early as when determining the goals, but their explicit designation will lead to common understanding of their importance by all stakeholders who are involved in the project team. All particular areas must also be defined with respect to the existing own human resources, capacities, and processes and authorities setting of the system. Each of the above mentioned items, when underestimated or poorly set, means high risks both for

the particular area and for the goal itself. From the facts above it follows that increased attention has to be paid to this project area and its failure can seriously affect the overall outcome of the project. (Muller, Jugdev, 2012).

1.2 Creation of corporate strategic goals

It is a systematic method of defining and implementing the specific steps that will lead and contribute to fulfilment of the main corporate goal. The strategic planning process is always divided into specific phases and steps that are grouped by their priorities, resources and mutual links. Everything is spread on a timeline and delegated to relevant managers and teams. Selection of the strategy and specific strategic corporate planning is a critical point for the companies that want to preserve a firm position in the market. Good phasing of individual parts and adequate selection of the strategic planning tools is therefore advisable. Every high-quality plan starts with a precise analysis of the needs of the organization. It is necessary to pay attention to the maximum clear and unambiguous formulation of the corporate goals as well as to analysis of external influences that can significantly affect normal business of the company. The second phase includes formulation of the strategy, i.e. breakdown and identification of long-term goals, appropriate selection of strategic procedures and tactics themselves. One level below includes breakdown of the strategy into the operating plan, containing individual sub procedures and delegation of responsibility in order to implement specific tasks. In this case it is advisable to consider well automation of corporate processes and digitization of documents, taking in view efficiency of operation. The last phase comprises monitoring and assessment of the raised goals. Thanks to the data analysis and the applied Business Intelligence software it is possible to monitor states in real time. This allows to respond to the present state immediately and to predict the future state, which is necessary to meet the set strategic goal. The procedure, management and organization of preparation of the strategic plan are affected materially by the chosen method for its preparation. Combination of the following two methods is used most frequently, and principles of one of them usually prevail. (Boyer, Frank, Green, 2010)

Expert method – characterized by a high level of involvement of the external professional processor and by a low level of participation of the local actors. The method has a standardized procedure of processing and emphasizes professional, methodological and high-quality work. Independence on the local environment (not subject to the local influences) is understood positive aspect of this method, but only shallow knowledge of the local development (specific) context, ignorance of relationships between individual actors in the territory in question and, last but not least, a limited explanatory power of the statistical data and shallow depth of consideration are its disadvantages.

Community method - a summary name for repeated discussions with the users participating to a large extent in preparation of the strategic plan under the supervision of the supplier. The external expert plays the role of the discussion "moderator" here. The method offers a general analysis of the key issues and focus on their specific solutions. The de facto public discussion of the strategic document and 'identification' of the users with the strategy (it will most probably be implemented by them) is a great advantage. On the other side, its disadvantage consists in a certain shallowness, i.e. not

yet identified problems in the addressed area do not need to be formulated in the discussion. (Avison, Fitzgerald, 2006)

2 Methods

Research in this area will be aimed at determining the degree of implementation of the information support tools in the selected top management group of the preset number of companies. The methodology is based on the literature review of the current state of the analyzed issue. The primary research utilizes interviews, observations, monitoring and expert estimate. The secondary research applies evaluation of the data from the information system database, documentation of the workshops / seminars. The secondary objective of the research is to determine availability and portfolio of the information support tools for creation of corporate strategic goals. The research should answer two fundamental questions:

- To what an extent the managers utilize the IT tools when creating the strategy?
- Which IT tools are available to support strategic planning?

The quantitative research was mapping for orientation in the issue, confrontation with the theory, and the qualitative research was realized as a structured projective user-oriented interview. (Sekaran, Bougie, 2010)

3 Problem analysis

The next part of the research comprises analysis of the situation in the market of information technologies with respect to the information support tools contributing to create the strategic goals. This analysis is focused on basic classification of the information support tools by their intrinsic purpose, i.e. whether or not it is the tool designed and created as support for determination of the corporate strategic goals or whether this tool is the integral part of a larger complex intended primarily as support of other corporate processes. Potential and possibly quality of these tools in the given context is the very reason of this breakdown.

The aim of the research was to analyze the current state of the information support tools contributing to the corporate strategic goals as the process of the corporate information system, its position in the Czech companies and complexity of offered information systems functionalities, to determine what functionalities of the information support are commonly used for creation of the corporate strategic goals and how the information systems offered in the Czech market are adapted to the used functionalities as a standard.

Based on the research, in the information technology market I have identified the following information support tools, intended exclusively on support to creation of the corporate strategic goals.

3.1 Actual Research

45 below mentioned and defined IS users were contacted, 13 of them responded with filled-in questionnaires (i.e. returnability of 34.6%). The questioning took place in September and October 2016. The mentioned IS users belong, according to the European Commission, mainly to small enterprises. It means 58.7% of the enterprises according to the factor of turnover (up to 220 million CZK) and 48% of them

according to the factor of staff headcount (up to 50 employees). The medium-sized enterprises are on the second position and only part of them (according to both classification factors) is formed by large companies.

3.1.1 *MACS Controlling Suite*

It is the software controlling tool supporting operational and strategic planning and assessment. It includes cost and income management to achieve profitability. The MACS software tool has undergone many years of development that has started in 1998, and representatives of universities have also taken part in its development. The product is aimed on organizing the data from many non-structuralized sources and on setting complex interrelationships. In a unified system the process of planning is much more easier and business is managed successfully. This tool can be characterized simply as an integration platform between information systems of the company with the possibility to utilize the gathered data as the source for the creation of strategic goals. The information support tool of strategic goals for assessment draws the data from the ERP system (real state) and compares them to the planned values. It also plans and assesses (at the operational and strategic levels) costs and income -> EBITDA, EBIT (monitoring by individual accounts and centres), calculations and production. (Laudon, Laudon, 2006)

3.1.2 *ADVANTA/KOMIX*

It is a modern strategic management tool, able to unify change sub-projects efficiently with the corporate strategy. It encompasses a whole set of events connected with the preparation, definition and implementation of the corporate strategic goals. Through a single tool it is possible to share the vision, motivate, plan, implement and measure a specific outcome. The information support tool of this vendor works on the principle of process analysis, proposing the optimum control indicators. It also enables to plot the corporate strategy in the optional way. The Balance Scorecard, expressed as the Norton / Kaplan scheme, can be selected for instance or there may be a registration under the theory of constraints. In any case, the strategy and its individual logical steps are always associated with specific projects within the system. Their procedure thus becomes the integral part of the scheme. It is therefore not necessary to assess specific activities to get an overview of how close we are to the preset goal - one view is quite enough. (Laudon, Laudon, 2006)

3.1.3 *Statistica*

This analytical software contains tools for data management, their analysis, visualization and development of user applications, including the information support tools for determination of the corporate strategic goals. It provides a wide range of basic and advanced techniques designed specially for BI, Big Data sectors, quality control, research and many others. Thanks to the analytical platform the organizations are able to manage the entire analytic lifecycle – starting by data grouping and preparation, visualization and ending by creation and implementation of the model supporting strategic goals. Manual stepwise regression – besides the manual (the user himself can choose in each step what predictors will be added or deleted) stepwise logistic regression even the classic linear and the Cox regression are available. The main advantage of the stepwise model construction is its ability to add the most

important predictors manually and to monitor their impact on the model. The "what-if" functionality allows to define the models conforming to corporate guidelines and policies. The data visualization module for advanced and interactive data visualization allows easy visualization of large and dynamically changing data (business data, power sector, industries, etc.).

Based on the research, in the information technology market I have also identified the following information support tools, suitable for creation of the corporate strategic goals, representing the integral part of the software complex primarily oriented on support to other activities (e.g. ERP). (Laudon, Laudon, 2006), (Croson, Drnevich, 2013)

In case of two software types their incorporation into this category may certainly become the very subject of discussion due to their partial overlapping or identical methodology for drawing the sources necessary for the information support tools aimed at creation of the corporate strategic goals. It is the MIS type software, one part of which is designed for creation of the corporate strategic goals, depending on its scope or priority of this part at the interface between the described two categories.

The BI type software is the other one; it is designed primarily to gather the data from different sources of different types (data mining); as the time goes, this principle is reflected in acquisition of various data sources in general, i.e. I can speak about gathering even the data representing the very basis for creating the corporate strategic goals.

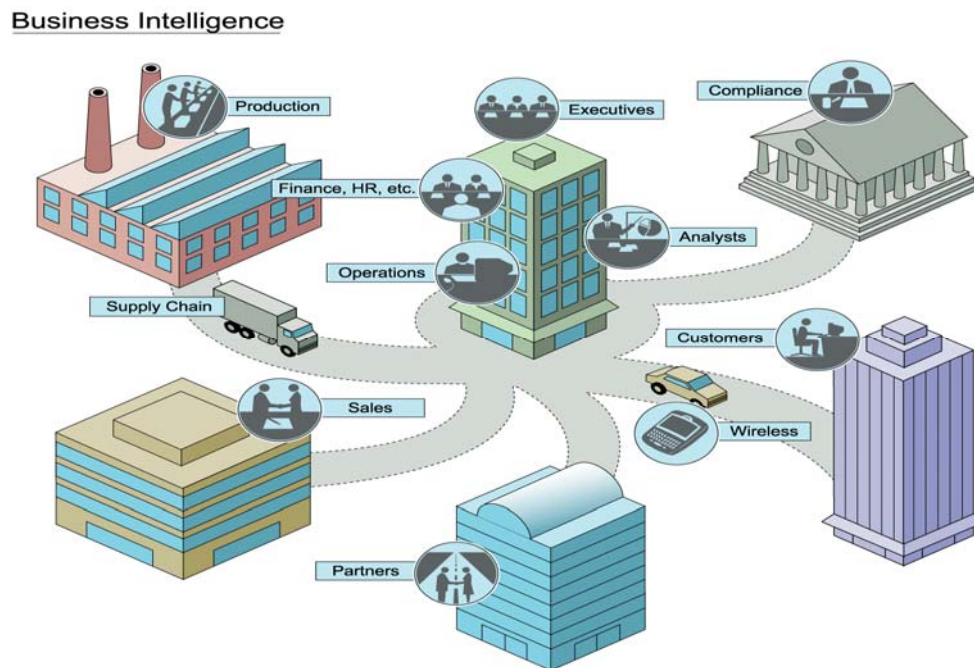
3.1.4 *Microsoft Dynamics AX*

It is the business solution of the Microsoft company for large enterprises of the ERP type. It accelerates business, because it allows the people to adopt quickly smarter decisions, based on findings and analyses in real time, to transform business processes more quickly to achieve a faster return on investment and growth of business. On the basis of these modules we can also consider this tool as the information support tool for determination of strategic goals. Within a single package Microsoft Dynamics AX brings the services for ERP, BI, infrastructure, computing resources and databases, thanks to which the organizations are able to perform sectoral and general operational corporate processes upgradeable through specific solutions.

3.1.5 *Pohoda BI*

The mid-sized companies are able to implement quickly the cutting-edge solutions for budgets and planning thanks to the planning tools at advanced level with intuitive functionalities. Tens to hundreds of new data, documents and/or orders appear every day in the economic system. These reports are very difficult to process, and maintaining them updated every day without the necessary tools is more or less impossible. The BI tools help with presentation of these results. They offer deep, immediate and always accurate data analysis, as well as different perspectives and points of view to their users. Just a few clicks, and all values are displayed well arranged for example in Microsoft Excel or intranet portals. These underlying materials at the same time serve for creation of strategic objectives, both through the described reports and also through several tools for prediction. (Palacios, Juste, Redondo, 2016)

Fig. 1: Preparation of the data for creation of strategic goals through the BI sources



Source: [own]

3.2. Research characteristics

Area of the research: Use of defined systems for the support of the corporate strategy creation

Territory: Czech Republic

Respondents: IS users with support for the corporate strategic goals definition

Number of respondents: 45

The aim of this research was to analyse the existing state of functionality systems for the creation of corporate strategy offer, and to characterize the level of standard adaptation of products on the Czech market for these used functionalities. Three basic areas of questioning were presented to the respondents within these goals, focused on support (functionality) level of given systems in the area of information support during creation of the corporate strategy. Then it was the possible range of information tool usage as a product for the area of reporting for the corporate strategic goals definition. The last part of questioning was focused on customization, proposal visualization and feedback of selected IS tools for the corporate strategic goals definition.

The questionnaire structure was aimed at percentage functionality fulfilment in particular areas – from the respondent's point of view.

4 Discussion

The paper has defined a relatively specific issue relating to the new trends of how to view of the data necessary and needed for managerial decisions in the company. The research was performed in the Czech Republic, where it was focused on the method of obtaining the information integrated into the method of obtaining the data

for managerial decisions. The research has brought a new consolidated view of the data and highlighted the information support tools provided for this purpose. It is necessary to take into account the fact that the quantitative data from the existing accounting files into process controlling is very difficult to obtain. Regardless of the IT support platforms this fact considerably reduces the total effect of the method.

Individual parts of the economic process are understood in the companies at different levels of importance and the tools – being the standard integral part of functionalities of the information systems offered on the Czech market – are not utilized adequately at all levels of management, taking in view their informational support. The information provided by the information systems are primarily outcomes of software architects ideas and not a true reflection of practical requirements. It means that they are not designed according to the actual needs of the executives and the users responsible for handling the everyday corporate routine. Even less they are processed in the correspondence with managers and senior executives responsible for strategic planning and creation of strategic goals. For the sector of strategic planning no information support tools are available on the market, that can compile (above the chosen data) the requested corporate processes, interconnect the utilized systems into the functional units not defined in advance and derive the consolidated data from them for analytical processing afterwards. Support to the Business Intelligence allows to use the well-arranged synoptic reports from various sources as well as, for example, interactive graphic boards intended for the higher and middle management. These tools are of rather information character and in principle are not intended as the tool contributing to creation of the strategic goals.

On the basis of existing state in this issues the basic areas of the evaluation as for information tools support for the corporate strategy creation were chosen. These areas were subject to next part of the written questioning. Then it was necessary to define, according to the described products, the tools – according to the range and specification in tables 1 and 2.

The highest degree of support in the area of tools focused on creation of strategic plans is with the products MACS Controlling Suite on the level of 80%, the product Statistica has this level even by 5% higher, and the product ADVANTA/KOMIX with 70% has clear evaluation that the use of IS tools in this area is usable. Similar evaluation – between 80 and 90% - is in reporting area. The last area – creation of the own visualization and customization of IS tools is on the other hand on very low level with all products. It is 50 to 70 % only.

In the area of information support tools as a part of software packages (Tab. 2) the research results are to some extent the same or similar like the IS tools specialized on the strategic goals creation, but they do not reach such support level nor in other areas. It is quite evident from these results that the degree of support and output creation and their use in the strategic goals creation is good. The area for the creation and customization is on much lower level. The results also show lower level of IS tools usage for the strategic goals creation when using bigger SW packages, which is rather strange fact, considering better options with supposed larger data volumes.

Tab. 1: Information support tools focused on creation of strategic plans

Trade name	Degree of support	Reporting	Creation
MACS Controlling Suite	80 %	90%	50%
ADVANTA/KOMIX	70%	80%	70%
Statistica	85%	85%	60%

Source: [own]

Tab. 2: Information support tools intended for creation of strategic plans as a module within the scope of the software package

Trade name	Degree of support	Reporting	Creation
Microsoft Dynamics AX	70%	80%	40%
Pohoda BI	60%	70%	30%

Source: [own]

The main objectives of the research of the degree of utilization of the information support tools for creation of corporate strategic goals were as follows:

- interconnection of individual systems of the company, including the possibility of further extension,
- enabling effective support to the decision making process at higher and top levels of the information pyramid,
- support to the major corporate processes through high-quality reporting,
- enabling monitoring and management of the running integration processes without the necessity to apply another separate system,
- support to easy scalability at all integration levels,
- support to an easily applicable visual design of corporate processes and transformations,
- support to import and processing the data acquired outside the core systems.

Conclusion

More and more companies face the issue of acquisition of the adequate information support solution for economic assessment of results and outcomes of the company, allowing them to display and work with the information relevant for adopting immediate and accurate decisions. As follows from the research in this area, there is no comprehensive system available that can be considered the information support tools for the economic assessment of the company. The companies purchase and deploy specialized tools, such as Business Intelligence, or specific tools for certain departments, which do not reflect the strategy in terms of outcomes within the whole organization. As the time went on, this approach has become a barrier to use the information. The main complication is that the users have to learn how to use a specialized software, though it is accessible for certain departments only (financial or analytical department as a rule). Such approach is accompanied by considerable costs for maintenance of separate systems and especially by low efficiency of utilization of

the obtained information. The tools, supporting creation of the corporate strategic goals, assist in solving the problems of the information and transaction systems, thus creating the space for improving management of the company. They represent a certain strategy of work with the information, are based on delivery of the information into the right hands, at the right time, in the requested format and in the undistorted form. High-quality information from the information support tools for economic assessment of the company is necessary for proper decision-making at all levels of corporate management. The task of such a system is to combine the data from different sources, monitor selected indicators, analyze influencing factors, determine prognoses and present everything in the graphic form. The system must allow revealing contexts and planning trends without any significant performance demands on other corporate information systems. And now I get to the fundamental question, which I am trying to find the answer to in conformity with the objective of this paper. Will a comprehensive information support system for creation of corporate strategic goals really appear in the information technology market?

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