

Accounting information systems in business management

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Abstract

Enterprise information system is database of information for management and decision making by managers. Integral part of information system is the subsystem which focus on the recording and processing of accounting documents. The importance of accounting, as an important tool for corporate management, continues to grow. In the paper, we present using the accounting system of the company, as a source of objective and relevant information. Information from accounting provides managers with an overview of past and current situation of the company and it is also supporting data for predicting development, tool for decision making and control. Software selection is important for provide information in the required scope and quality. For choosing accounting system, company decides how much information the system will contain and establishes the extent of its use. A question of selection of accounting system then linked with the management and directly affects the quality and speed of decision in the company. Subject to review is information system in selected companies. We applied the basic scientific methods of research. Based on obtained results, we concluded that an essential prerequisite for ensuring reliable and sufficient information is high quality accounting system. Another prerequisite is the relevance of using accounting information by managers.

Keywords: accounting, company, information system, management, managers

JEL Classification: C88, M15, M41

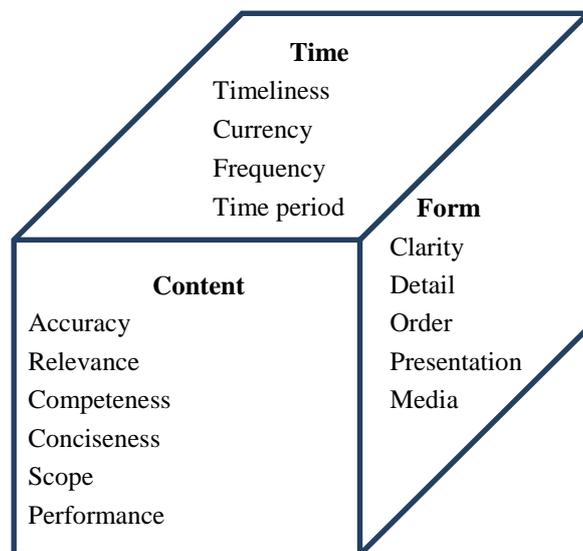
1. Introduction

Currently, the companies have sufficient working capital, in many cases they have adequate supply of labor. Across the board, it cannot be said that all companies are based on the same comfortable base (for example, there are differences in financial background). All companies can affect accounting software they choose and how they use it. In order to be competitive company, it must have high quality information system providing solutions which not only ensure the recording and processing of data in real time, but will also serve as a support achieve company's objectives (Stuchlý, 2015). Conditions are naturally create for a flexible implementation of the latest technological elements, in the information and communication infrastructure, in a liberalized environment (Hennyeyová, 2007). It is necessary, that the information system supports also planning and forecasting of production and takes account on specifics of customers. Implementing high quality (appropriate) information system improves the management process and keeps competitiveness on domestic and foreign markets.

The ways of getting information are constantly expanding. The technical development also improves the access options to data. In 70's and 80's of the 20th century, there was solved an issue with capturing the majority of the company activities data. At the beginning of the 21st century, the archiving issue of large amount of data was subsequently solved. However, even large amount of archived data in company's information system do not guarantee to provide all

necessary information needs to managers. This work is about the scope quality of the information provided, the access speed, availability, size and possibilities for their further.

Picture 1: A summary of the attributes of information quality



Source: O'Brien, J. A., & Marakas, G. M. (2011). *Management Information Systems*

The subsystem provides the necessary information needed for decision making and approving additional actions is accounting, and involves all three areas of accounting:

- a) the financial accounting system provides holistic information for the company,
- b) the internal accounting system elaborates in details on selected financial indicators at lower levels. It provides insights for internal needs of company.
- c) the managerial accounting is the higher level of internal accounting system, which processes data from intra-organizational accounts, in various statements, and managers make decisions on their basis.

The company acquires precise information from a combination of financial and managerial accounting. A company accounting software is a base to gather information. Therefore, it is essential to choose the appropriate accounting system. For the right decision, especially for middle and top management level, is essential managerial accounting, because it works with operating costs, revenue items and cash flows. It is an extension of financial accounting.

An assumption for successful decision making and management is a functional system planning of economic indicators. The plan is based on results of historical periods (financial accounting, managerial accounting) and sets future goals, including external factors affecting the company.

Obtaining this information in conditions of turbulent economic environment requires its own, unique, nonstandard data processing within the managerial accounting and management information systems (Caputa, Škorecová, 2015).

2. Data and Methods

In the present paper, we deal with issues about information support managers. Objects of investigation are the corporate information systems in companies. Selected companies are large manufacturing companies, that did not wish to disclose their name, therefore are mentioned as a company A and a company B in this paper. We describe in surveyed entities the current situation of accounting software. One of the areas of the research is focused on the scope and

accuracy of information available in the accounting software. The other area of the research shows how managers access to information, their attitude to provided information and its relevance to other business decisions. The aim is to put forward proposals how to improve the existing information system, so that they fulfilled the requirements of managers on the required information for all levels of management. We use basic methods: analysis, synthesis, comparison, deduction, controlled interviews with managers in selected companies and in software companies. The underlying data are from research in selected companies, from the analysis of selected software products and from comparison of the software available in the market (software CHEMAT from the company CHEMAT Computer Service Ltd., software Construction Monitoring from the company Kros, a.s., software GARIS from the company TatraSoft Group Ltd. and software MAGIC from the company Sango Ltd.; SAP Business One from the company Softip a.s.; POHODA Business Intelligence from the company Stormware, s.r.o.). Because of the large scale of the problem, we present concrete results obtained from investigated companies, in the present paper. We formulated conclusions after evaluating results and a consultation with managers of selected companies and software companies.

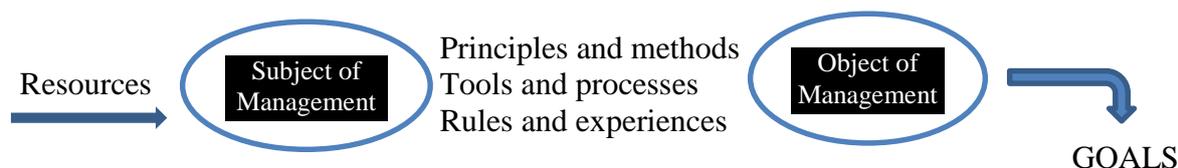
3. Results and Discussion

3.1 Accounting system as a part of company management

Accounting information system summarizes financial data about company and organizes data into effective reports. Accountants present results to managers that provide decision-making based on these reports.

A decision – making is the main managerial activity. It is one of the basic responsibilities of a manager on every level. Management can be defined as a set of activities (including planning and decision making, organizing, leading, and controlling) directed at an organization’s resources (human, financial, physical, and information), with the aim of achieving organizational goals in an efficient and effective manner (Griffin, 2013). Management is a gradual, systematic decision-making towards achieving the objectives. Process of decision-making is closely related to management. The manager must make decisions every day, no matter which management activities (functions) are currently being executed. The manager uses decisions in planning, organizing, human resources, management and control. Mižičková, Simon and Ubrežiová (2005) define management as open system of knowledge about the specific activities of managers who operate in order to establish a fulfillment of the objectives in the organization, business entity. Management belongs to the most important human activities. It is a process which is executed by managers and it is used to achieve company goals through the transformation of inputs to the required output. The main mission of managers is to ensure the most efficient transformation of inputs by using these processes. Company accounting system is one of the managerial tools to achieve required outputs and goals.

Picture 2: Management as a process



Source: Míka, V. T. (2006). Management methods and techniques.

Larger companies have increased demands on their accounting information systems. Today, many organizations use information systems that integrate financial and non-financial information about business activities and about their business partners in one database. The

accounting subsystem is the integrating element of corporate information (Kučera, Látečková, 2008). Book-keeping records are an important source of accounting information in each field of corporate activity. Essential to management and decision making is access to objective and accurate information. Ideally, all information should be accessible in real time to meet managers requirements. The information system should contain specific technologies that will allow for not only the storage of large amounts of data but also timely processing, and providing outputs for managers in a required format.

The manager should be able to get an immediate overview of the important economic indicators, as well as the possibility of remote access (Cloud Computing) to accounting systems, can then present information in real time and secure their availability anywhere with an internet connection. Of course there should be the veracity and reliability of accounting data, which ensures relevant results of financial and economic analysis.

The research was based in companies where the accounting systems were already implemented. Their selection was made on the basis of market research and based on the specific needs of managers – according to their experiences and requirements that the accounting system put.

3.2 The analysis of the accounting system researched companies

Based on the research we carried out investigations of the company to be divided into two categories. The first category consists of companies that have already implemented accounting software for a long time ago and as an extension they have specialized software for management and economic analysis.

The second category are those companies that have chosen new application software directly involving accounting, analysis options and reporting modular way.

In all companies, managers agreed that the accounting information are essential for the proper management and decision making. We also found there are certain deficiencies and problems in every company, that need to be resolved to establish a quality information base for corporate governance. In the next part of the article we present results of the practical application of research in two selected companies. Concrete proposals from this research can be subject for dealing with similar situations in other companies.

The first company used accounting software Chemat connected with specialized software CM (Construction Monitoring). In the beginning, the company started using the accounting software which was later connected with managing building construction. System implementation, interaction, data definition and information streams from one platform to another was not simple. From the software construction monitoring data flow to Chemat as an invoicing framework and from the accounting software data streams back to CM, where information is reconciled and analysed. CM contains the projected results and therefore it is the core of the accounting and controlling.

Input data are decentralized and processed in Chemat by the individual departments. An employee inputs contract specific data to the department and also verifies it. Then, a senior manager approves the input. Outputs from CM have a predefined format. This information is used by managers to make a decision. Managers, depending on the current issue, the level of competency and their responsibility, will then make a decision.

According to the managers statements, the benefits of information system are:

- reducing time period between request and provision of data,
- system transparency,

- variability of output reports, usefulness of provided information and options of their presentation,
- option to adapt the system to individual manager requirements,
- possibility to edit the system according to market conditions,
- improving production control.

The company covers needs of all necessary controlling information by integrating both software systems. The CM system contains predefined output formats by which it is possible to extract for certain period of time.

Managers positively evaluated the possibility of calculating the economic indicators, compiling reports on the evolution of costs, revenues and economic analysis company. For this area is the most important accounting subsystem that provides relevant information - view the assets, financial and income situation of the company. Another important application area for controlling process is a comparison plan with reality, reasoning divergences between planned and reached results and looking for effective measures to the next season. The information system including accounting software and construction monitoring software currently covers all needs of company. Users can define personalized outputs required for their operation area because that both softwares are modular. Advantage of the software is, that output which does not have predefined formats, is able to export to Excel and work with numbers in pivot tables.

The question of security systems seems resolved issue, because the access of individual staff members is individually adjusted according to the classification of the worker. However, since the approaches adjusted to workers is the possibility of human error poorly set up access for employees. Then, if someone allows access throw all the subsystems, may also occur for misuse of the information or to the change data (either intentionally or unintentionally).

Based on the above, we accept the conclusion in this researched company, that the system covers all needs and allows more opportunities of development given the growing requirements that may arise over time. Managers identified as problematic issue about data security. Therefore we propose to introduce "Information Security Management System", which serves to protect the availability, confidentiality and integrity of data in order to prevent their misuse and change.

Our other recommendations are as follows:

- connecting attendance with subsystem wages,
- introduction of the prepared module approval outgoing orders electronically in CHEMAT,
- better use of existing modules - as a contract, a loan,
- data from the subsystem Accounting could be used to calculate other financial-economic indicators. Spider analysis has been proposed as an option. Information obtained in the analysis could be a useful tool for planning, decision making and management. Clear presentation of each of the indicators helps to quickly identify in which areas the company is achieving better and which worse results. Spider analysis is the appropriate option for quality presentation of information on the financial situation of the company.

The second company used accounting software GARIS connected with software Magic (manufacturing processes). Like the company A, introducing of the system, interlinking and communication between both systems were not easy. Managers expressed satisfaction with the information system at present. The biggest positives of the information system are as follows:

- understand user preferences, system interconnection between subsystems,
- system provides sufficient details,
- automated order processing, which allowed to reduce the number of employees in sales department,
- better access to information at every stage of the production process,
- monitoring the success of the product market, identifying non-profit goods,
- improve the processes related to production planning,
- reduce production costs,
- more flexible pricing, flexible response to market changes,
- total saving time by improving the efficient management at various levels of organizational structure.

Communication with the Finance Director of researched company brought findings, that the current system clarify information about flows and processes in the company. All subsystems are interconnected and managers have greater insight about what is happening in every department. Implementation of the current solution decreased operating costs, as well as consumption of material inventories and expenses in administration. Managers obtain the necessary information quickly and easily, directly from the information system. Despite the above mentioned positives, we have also identified some negative aspects. In the view of Finance Director, it is necessary to fill out the decision-making process. The company will need to add into the information system a module ensuring a more sophisticated selection and presentation of information. A module which is enable to make an economic and financial analysis, to plan a financial position, to make a business strategy and development alternatives, to show strengths and weaknesses.

This company has implemented a quality information system, but managers are interested in the improvement the area of management and decision-making. We propose an extension software for summary reports according to requirements defined by managers. A new modul should allow plan, evaluate and manage financial and production activities in the company. Till a new module will be establish, we propose use data from the accounting subsystem in the form of output reports, an export to Excel for the purposes of calculating financial-economic indicators. As well for the company B we proposed a Spider analysis.

3.3 Evaluation of results

Based on the researched in selected companies, we found several assumptions that must necessarily be met to allow a company to build a quality and useable information database. The information database of the company is affected by its localization, the internet access, digital literacy employees and the technical equipment. A quality technical equipment is an assumption for providing information to support managers and their decision-making.

Introduce or enhance corporate information system, including the accounting system, according to the individual specifics, it is not financially simple matter. However, the analyzed company evaluated various options and concluded that the compensation quality of the information system by increasing the number of workers is risky, shorter, prone to errors and considerably more expensive solutions.

Based on the analysis conducted and the generalization of the results we conclude that to improve information support in any business, you must provide:

- the availability of data in real time - for immediate output option is necessary to continuously providing input into the system, the first step in this chain is incoming correspondence and its distribution to employees,

- data processing with short response time - from the time a document comes to the company, its control and processing within an internal hierarchy, work in progress to a system,
- modification and open information system - editing options in terms defined needs of managers and possibly other levels of staff working with a system,
- optional remote access to data (cloud computing) - ensuring the fulfillment of the first condition and there are the availability of data in real time,
- full support for prepare development plan, for execution control, for business management, for continuous communication in the company - processing of various forms of inputs and outputs, usable for multiple purposes of business areas: production, economics, controlling.

4. Conclusion

The basic condition for a successful business is access to information. Reliable information base improves the performance and competitiveness of the company in the market. It enables managers to make quality and timely decisions and contribute to the growth of the company.

In conclusion, it can be stated that to create high-quality information support for managers is not just a matter of implementation information systems and technologies. Another essential request is to have good and decision-making level of the managers, who are able to extract offering opportunities from accounting software and use them to the correct decision. The correct motivation of the people who will operate the system is very important because the willingness and information literacy of users are important assumption for the system to provide the requested information, to deliver the expected results and to become a real competitive advantage for long-term and stable operation of a company.

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