

Accounting and Controlling Business Management System Systém účetního a controllingového řízení podniku

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Abstract

The author examines an efficient accounting and management system that gives a true picture of an economic reality with a direct link to the consumer to achieve maximum effectiveness of financial planning and the business as a whole. By this, the accounting information system and its role across the entire business is defined and linked to other subsystems of the business information system at the same time. On the basis of inputs and outputs from information accounting system, the author makes conclusions with regard to linking the accounting information system to preferences and social status of the customer, both using Customer Relationship Management or through his consumption expenditures in relation to his consumption needs pyramid and preferences. The paper expands the scientific knowledge in broader context, as it does not examine the given factors of business success separately, but rather in its entirety forming a direct link consumer – accounting information system – controlling – financial plan – performance of individual departments – business performance.

Keywords

controlling, plan, model, accounting system, enterprise, consumer

Abstrakt

Autor zkoumá efektivní systém účetního a manažerského zachycení ekonomické reality s přímou vazbou na spotřebitele a to tak, aby bylo dosaženo maximální efektivity finančního plánu a tím i celé firmy. Dochází tak k vymezení účetního informačního systému a jeho role v celé firmě, ale i ke správnému napojení do ostatních podsystémů obchodního informačního systému. Na základě vstupů a výstupů z informačního účetního systému dochází autor k závěrům ohledně napojení účetního informačního systému na preference a sociální statut zákazníka, ať již prostřednictvím Customer Relationship Management nebo prostřednictvím jeho spotřebních vydání v závislosti na jeho pyramidě spotřebních potřeb a preferencí. Daný příspěvek rozšiřuje vědecké poznání v širších souvislostech, protože nezkoumá dané faktory úspěšnosti firmy zvlášť, ale jako jeden propojený celek tvořící přímou vazbu spotřebitel – účetní informační systém – controlling – finanční plán – výkonnost jednotlivých oddělení – výkonnost firmy.

Klíčová slova

controlling, plán, model, účetní systém, podnik, zákazník

Introduction

Each businessman, business, bank or other organisation conducting business or lending money, investing or entering an industry must be sure of its performance and the stability of the given industry. The stability of the given industry and performance are reflected in the financial plan of the given organisation through the accounting information system. Therefore, we may predict that industries that are stable and can be more easily predictable for the purposes of a financial plan will have an easily measurable performance. Nevertheless, for easy measurability, both accounting information system and other business systems must be properly set. All system settings must be directly linked to the customer who may or may not be connected to our accounting system using Customer Relationship Management. A good setting of accounting information systems results in right outputs and assessments. Therefore, we may conclude that external surrounding environment represented by customer and inputs is reflected in the financial plan – in the business controlling management; to reflect changes with customers, the business controlling management must set a correct accounting system going beyond the statutory regulations tailored specifically to cover the needs of proper reporting and financial plan creation for business management. We may expect that industries that are directly connected to the market and consumer behaviour will be the stable ones; in these industries we can see strong relation of the customer and the market's stability with the problem of financial planning. To simplify, we can say that there is a connection between the type of customer and his need and consequent behaviour resulting in the economic activity i.e. the purchase of the given product(s); with such economic activities of the customer being captured in the accounting system e.g. through analytical evidence related to each product, but also to individual economic centres. The accounting system is then used by the controlling that summarizes the data and provides guidance to the business to put even more emphasis on the performance of each economic centre (department).

Given insufficient scientific basis of the problem, the aim of this paper is to propose an efficient accounting and management system that gives a true picture of an economic reality with a direct link to the consumer to achieve maximum effectiveness of financial planning and the business as a whole. The assumption is a sufficient knowledge of the existing scientific knowledge, understanding of the essence and meaning of the accounting system and its setting with its outputs and finding the direct relation of the consumer to the financial plan and controlling.

1 Overview of Literature

The paper deals with the problem of an accounting system and controlling in broader context and gives a general overview of the accounting system and controlling in relation to the consumer. Naturally, the accounting standards that are e.g. dealt with by Darabos (2014) in his scientific paper also play an important role. However, the author of this paper is aware of the fact that the use of international standards may result in making comparisons of performance of subsidiaries within a single multinational company

with global reach. With regard to accounting systems, Mogdel, Al-Rjoud and Al-Shwiyat (2015) oriented at industrial Jordan firms, listed at Amman Stock Exchange can be seen as a beneficial one. The authors focus on proper functioning and maintaining of accounting systems not only from the HR perspective, but from organisational aspect, as well. They also define the significance of the accounting system. The opinion is supported by France (2013) who defines the significance of an accounting system in the context of the financial accounting system, as a system that should prevent “surprises” in the economic activities of the business, and acknowledges the main accounting system as a tool serving the top company management (CFO); this opinion is also supported by Prasad and Green (2015), who acknowledge the accounting system as the system for capturing accounting information and providing valuable information; the same opinion is shared by Emadeldin (2014) who especially sees the importance of the accounting system for small and medium-sized businesses; this opinion can also be found in Salim and Ferran (2014) who understand the accounting system as the system connected automatically to the customer (such as his warehouse, being the so-called CRM or Customer Relationship management).

The paper of Knežević, Stanković and Tepavac (2012) who acknowledge the significance of the accounting system as the source of data, but also as the basis for decision making in the company and part of the accounting system as a subsystem in the business system is also an important one. At the same time, they put an emphasis on the main function of the accounting system as the source of data flowing to both internal and external users with regard to changes that are being made in corporation. This opinion is shared by Dragan (2014) who understands the accounting system as the management accounting system the aim of which is to achieve objectives of the business unit and who sees the accounting system – management system as a system connected to other accounting systems as it is also referred to by Knežević, Stanković and Tepavac (2012). The problem of controlling mentioned in the paper is very well defined in Cornel and Lavinia-Maria (2012), who defined controlling as a system that makes sure that the organisation is effective and that informs of deviations from the plan (Nowosielski, 2014). Nowosielski (2014) then analyses the significance of controlling indicators that should give the answer to questions related to the business performance. Baran (2009) also leans towards the significance of controlling and emphasizes its significance in the times of economic crisis as a response to the increased costs arising from the increase of prices and unstable economic situation and insufficient economic development and growing competition on both domestic and international market. Baran (2009) subsequently analyses the problem of controlling in relation to the existing crisis in Slovakia and recommends some measures.

Regarding the significance of the accounting system and financial plan monitoring the deviations and is incorporated in the controlling, we must also mention the paper of Mareš (2015) where the author tries to use (without using CRM, as not every business has individual subsystems of business information system connected directly to the customer) the problem of consumer behaviour to make a more accurate prediction that will have an impact on relevance and accuracy of the financial plan in relation to reality. His research was also based on hands-on experience and previous research in the field of the consumer behaviour, e.g. (Mareš, 2012) and (Mareš, 2013).

2 Accounting System and its Significance

The accounting system is not only viewed from the perspective of standards. As seen by Darabos (2014, p. 604) “nowadays regarding the globalization the need for comparing statements has become increasingly urgent, which requires the harmonization of the regulation at different levels.

Systems of accounting striving for commonality and being outstanding from the aspects of their relevance and utilizations are the followings:

- 1 United States Generally Accepted Accounting Principles (US GAAP)
- 2 EU directives accepted by the member states of the European Union
- 3 Standards published by the International Accounting Standards Board (IASB), the so-called International Financial Reporting Standards (IFRS)“

The accounting information systems must be seen as the system dedicated for the internal use by the firm. Mogdel, Al-Rjoud and Al-Shwiyat (2015, p. 5) posited that “An accounting information system is considered among the most important minor systems within the administrative system at an industrial firm facility. This is due to the financial data derived from the system, and which is needed by internal and external parties and which is the result of input processing which includes economic data and events“.

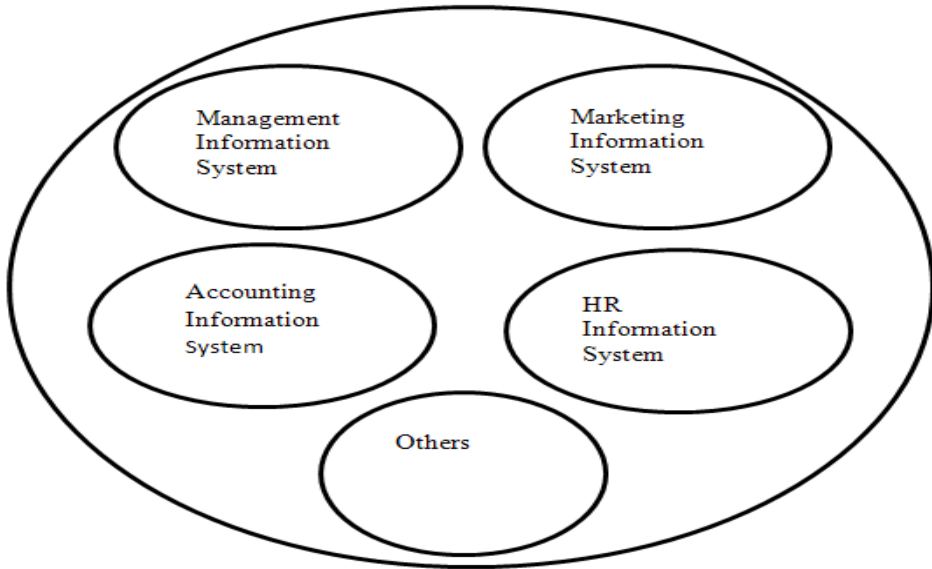
This accounting system is then designated for the financial director. “For most organizations with a legacy financial accounting system, there may not be a single “aha moment“ precipitating a need to upgrade. More likely, a series of technology, security and cost red flags will signal the system is no longer capable of meeting the company’s current demands. Gone are the days when the CFO’s purview was confined to chief “number cruncher“ for planning, budgeting and forecasting, now the CFO is being looked to by corporate management to play a strategic role in managing the business at a high level, while also excuting day-to-day financial decisions“ (France, 2013 p. 57).

Knežević, Stanković and Tepavac (2012, p. 63) define the information system as “Information system in the company should provide all necessary information for decision making. Accounting information systems are continuously upgraded, apart from other types of information systems“. And then Knežević, Stanković and Tepavac (2012, p. 63) add that “accounting information system can be viewed as a special discipline and as part of a large system and presents a discipline that is oriented towards practice“.

3 Accounting System Settings and its Outputs

The accounting system should be seen in broader context of the business information system.

Figure 1: Business Information System and its Subsystems



Source: Based on Knežević, Stanković and Tepavac (2012)

"Business information system includes the following sub-systems: 1. Management Information System, 2. Accounting Information System, 3. Marketing Information System, 4. HR Information System and others" (Knežević and Stanković and Tepavac, 2012 pp. 63).

An assumption that the accounting system must be correctly "connected" to other systems to be able to receive inputs from other systems and to provide outputs at the same time which will ensure the overall efficiency of the whole system can be inferred from the above.

Mogdel, Al-Rjoud and Al-Shwiyat (2015, p. 19) recommend:

- 1) "Organize training course for the employees in the employment of accounting information systems for raising the efficiency of the individuals who work at this field.
- 2) Establish a database that is suitable to the requirements of costs for the purposes of improving production costs.
- 3) Conduct more research in this field in order to enhance the level of production costs to achieve the maximum benefit from the accounting information system.
- 4) Conduct future research concerning the evaluation of the role of accounting information systems in improving the internal audit and improving the work of internal auditing committees, as well as exploring the effective use of accounting information systems to enhance the quality of the commodities of the industrial firms."

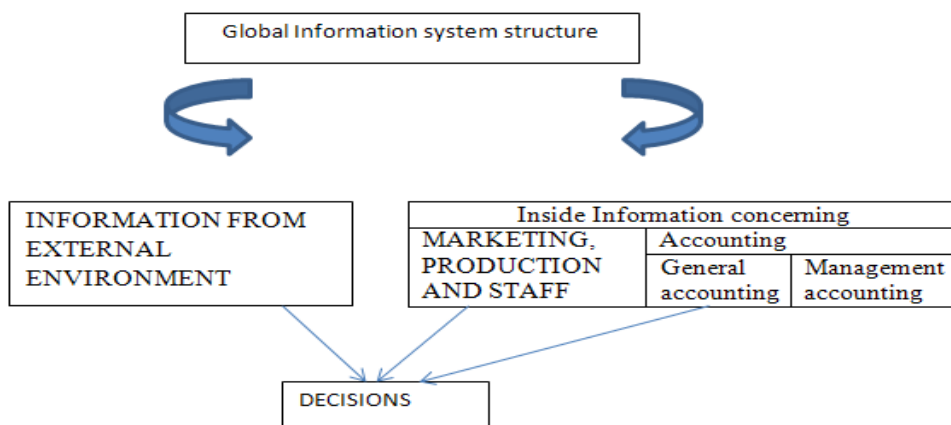
In case of the above, we may expect performance of functions as mentioned by Knežević, Stanković and Tepavac (2012, p. 64): "Two main functions of an accounting system are: 1) rendering accounts function and 2) company management function."

The authors posited that the primary function of accounting system is to be oriented towards meeting needs of external users (provided financial communication of the company with its environment. The second function is to be oriented towards meeting needs of internal users. All functions of the accounting system are used for planning, controlling, budgeting etc. The accounting system is based on the double entry book-keeping and its help to get more information for making various business and financial decision.

If we focus on the accounting system and its outputs, we often encounter no distinction between the terms accounting system and management accounting. The author of this paper believes that the term accounting system is broader than management accounting as the accounting system incorporates all economic information and management accounting is exclusively designated for internal needs of managers.

Dragan (2014, p. 174) adds to the management accounting that “in order to achieve the objectives of each entity, the accounting management is one of the main source of information and data, presented in a performance report enabling decision making. The use of management accounting is very important for the management act because the external environment contributes to increase the interest in accounting information and data.”

Figure 2: Global Information System Structure



Source: Dragan, 2014, p. 174

In this regard, the author of this paper contradicts Dragan (2014), and as opposed to Dragan (2014), he understands the accounting system in broader context than as shown by the components referred to in the figure below.

Table 1: Output from the Management Accounting System

Financial accounting	Management control
Financial statements (financial position, financial performance, changes in capital and their cash flow)	Controls efficiency and effectiveness of achieving objectives
Managerial accounting	Internal Audit
Organizing a system for measuring the activity Cost calculation Providing information Facilitating taking decisions	Systematic reviews

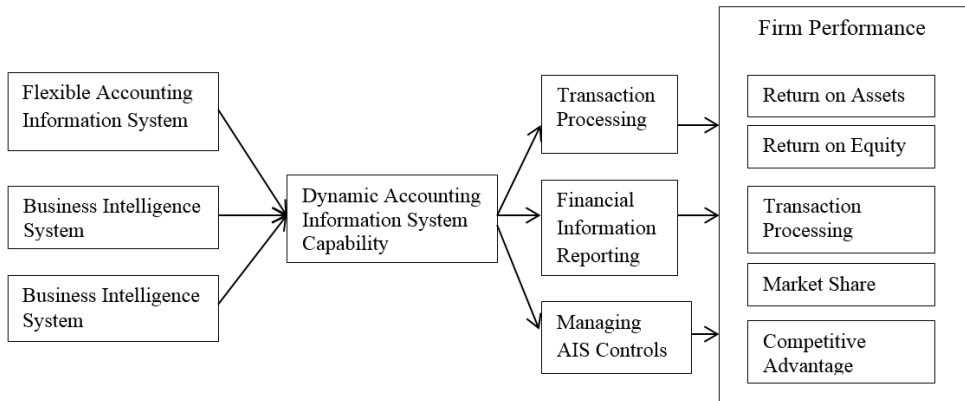
Source: Dragan, 2014, p. 174

To achieve a greater validity of the concept of the difference between the accounting system and management accounting system we may also give the definition and outputs according to Prasad and Green (2015, p. 123) "accounting information systems (AIS) capture and process accounting data and provide valuable information. However, in a rapidly changing environment, continual management of the AIS is necessary for organizations to optimize performance outcomes. We suggest that building a dynamic AIS capability enables accounting process and organization performance."

The relation – definition between the financial accounts and management accounts in terms of MIS (Management Information System) needs to be mentioned, according to Fibírová, Šoljaková, Wagner and Petera (2015, p. 18) "it is effective to differentiate the accounts according to the user of accounting information and also according to the sort of solution which is the most suitable for resolving various deliberative tasks. When managing financial accounts and compiling accounting statement there is an important demand on conforming to certain rules which guarantee completeness of the showed accounting information, its reliability and comparability in time and among enterprises to external users."

Further according to Fibírová, Šoljaková, Wagner and Petera (2015, p. 31) "in professional literature which deals with definition of aims and contents of management accounts, its main role is pointed out. This role lies in investigating, sorting, analysis and presentation (statement) of the information, namely in such a way which will enable managing staff to purposefully control the business, i.e. manage the relation between expended sources and achieved results, influence basic factors of the economic development of the company, support its performance and ameliorate its financial position".

Figure 3: Conceptual Model



Source: Prasad and Green, 2015, p.127

The figure above confirms the difference between the concept of management accounting system and accounting system as a whole. Knežević, Stanković and Tepavac (2012, p. 65) add regarding the significance of the concept of accounting system as a whole that “changes in features of corporation lead to changes in the management. Faced with risks, the company’s management significantly improved its theoretical and methodological solutions as well as practice regarding management.”

Nowadays the accounting system must be opened for changes in planning methods, implementation new techniques and external changes. The authors posited that the accounting information system meets the management’s request as an active and creative system.

4 Controlling, Financial Plan and Consumer

As described above, the accounting system serves the needs of both management and external users. Nevertheless, it was important to mention the significance of the accounting information system for small and medium-sized businesses.

According to Emadeldin (2014, p. 156) “Accounting Information Systems (AIS) are a tool which, when incorporated into the field of Information and Technology systems (IT) were designed to help in the management and control of topics related to firms’ economic-financial area. But the stunning advance in technology has opened up the possibility of generating and using accounting information from a strategic viewpoint. Since this is important for all firms, it is more important even for medium-sized and small ones which need this information to deal with a higher degree of uncertainty in the competitive market.”

As described above, each accounting system has its own inputs and outputs, according to Knežević, Stanković and Tepavac (2012, p. 65) "accounting information system deals with:

1. Measurement or quantification of business events in monetary forms (by recording in accounts) – INPUT
2. Data processing in business books and drawing accounting reports – PROCESS, and
3. Publication of financial statements, with which the accounting communicates with internal and external users thus giving them information necessary for business and financial decision making – OUTPUT."

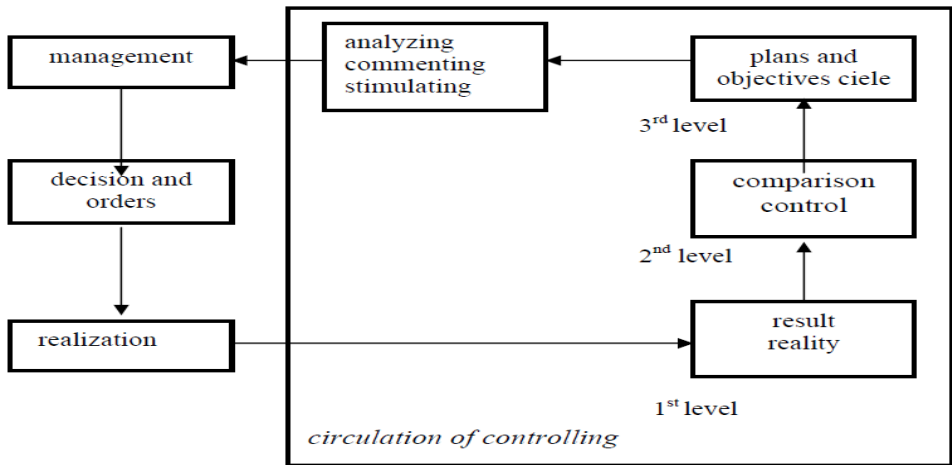
In the text below, we will not base our assumptions on the fact that the given firms using CRM (Customer Relationship Management) According to Salim and Ferran (2014, p. 25) "many small and medium sized businesses are currently operating thanks to the large number of inexpensive applications that handle their front office. These businesses also leverage the many accounting packages available in the market. However, their operations are frequently limited by the bottleneck present between the two systems."

However, it is necessary to define the importance of controlling which is directly linked to CRM.

According to Cornel and Lavina-Maria (2012, p. 305) "controlling consists of verifying whether everything occurs in conformities with the plans adopted, instructions issued and principles established. Controlling ensures that there is effective and efficient utilization of organizational resources so as to achieve the planned goals. Controlling measures the deviation of actual performance from the standard performance, discovers the causes of such deviations and helps in taking corrective actions."

According to Baran (2009, p. 655) "controlling includes the introduction of systematic planning, the efficient control and continuous management of individual processes enabling the improvement of conditions for making decisions of responsible workers and simultaneously the lower measure of uncertainty. In general, controlling can be characterized as a system, the purpose of which is to improve the company management on the basis of objective records and the objective evaluation of all economic events in the company."

Figure 4: Circulation of Controlling

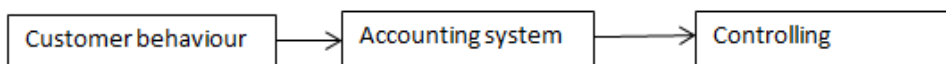


Source: Baran, 2009, p. 657

As mentioned above, the accounting information system uses inputs and outputs. The economic transactions are the most frequent inputs; the outputs are then used by managers and external users. Subsequently, the entire accounting information system must be understood in the broader context in relation to the customer behaviour and output in the controlling.

The give system does not have to limit only to inputs which present economical transactions already put into practice (accounted for) and outputs but it can be used in a wider context, e.g. it is possible to use Business intelligence and/or CRM (Customer Relationship Management) to estimate customer behaviour and further effects of customer's behaviour on the financial plan. CRM through IT technologies in selected companies and industries allows a direct connection to customer's stock and ascertainment of his immediate needs: it is automatically connected to business information system. This information can also be noted in data stock of business intelligence and can be further used to analysing of trends and preferences of customers for financial plan determination needs in the years to come.

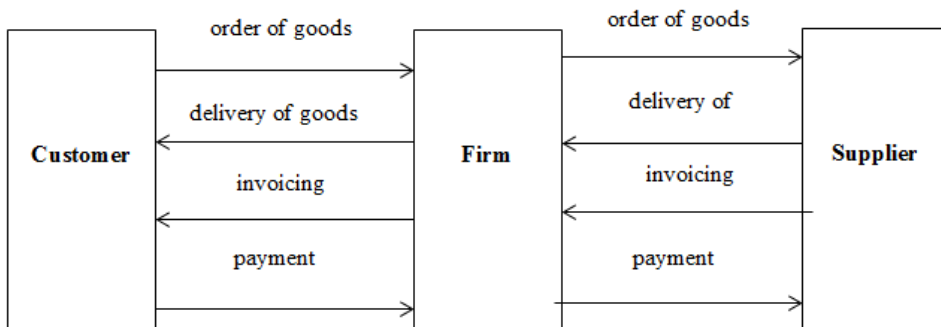
Figure 5: Definition of Relationships between the Consumer Accounting Information System and Controlling-based Business Management



Source: Prepared by the author

The figure above maps the problem, the customer behaviour – his shopping and shopping preferences are reflected in the accounting system in the form of posted economic transactions as shown more accurately in the figure below with the inclusion of supplier relationships.

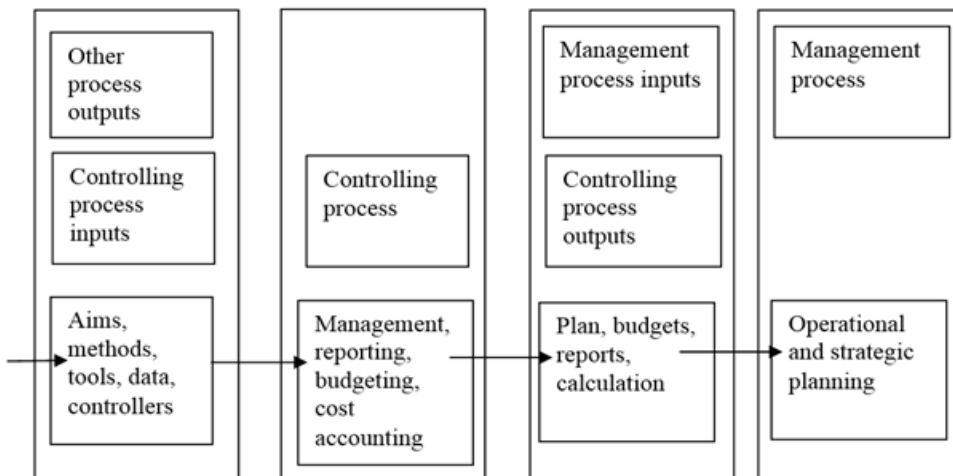
Figure 6: Supplier – Customer Relationships



Source: Prepared by the author

The relationships above are then analysed by the controller using the accounting information system which should be effective. As adds Nowosielski (2014, p. 448) “an efficient controller contributes to the achievement of business goals. Therefore, it is clear that, by making an assessment of economic performance of a given company an indirect assessment of the controlling processes is being made. However, despite the fact that every modern enterprise has a very well developed performance measurement system, it is very rare for this system to encompass result of controlling processes as well.”

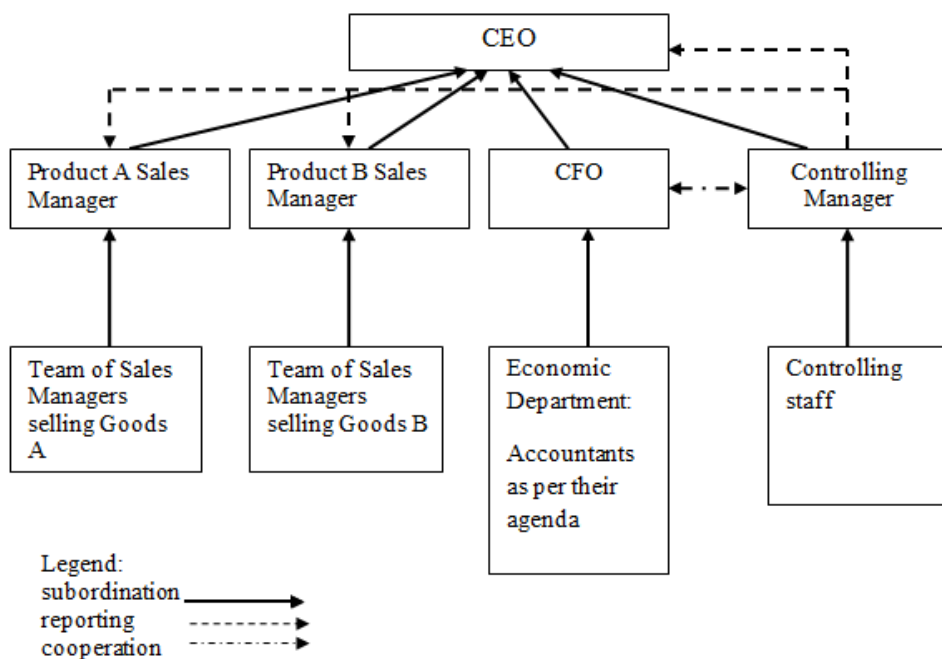
Figure 7: The Idea of Process Approach to the Issue of Controlling



Source: Nowosielski, 2014, p. 448

The inputs above may be processed in the business organisation structure – as given in Mareš (2015, p. 410): We base our assumptions from the simplified model of a business firm that sells daily needs products (two products) and sensitivity to changes in expenditures of customers thus may be quickly reflected in the performance of the financial plan.

Figure 8: Method for Monitoring of Financial Plan of Business



Source: Mareš, 2015, p. 410

The figure above defines the problem of the relationship between the market – consumer – accounting system and financial plan – controlling. In the following context:

The firm performs sales activities using its sales department and the results of their activities are posted by economic department in the accounting information system, the data are used by controlling to report on the performance of each department and the firm as a whole using financial plan performance reports for each of the departments and firm as a whole.

On the basis of the above, we may assume that (Mareš, 2015, p. 410):

- CEO sets the financial plan and motivates subordinates from sales departments to fulfil it.
- Sales department managers are responsible for adherence to and fulfilment of the financial plan.
- Controlling managers or their subordinates report on the financial plan to the department manager and CEO.
- CFO cooperates with controlling and implements analytical evidence where proceeds for the relevant goods are posted for its needs. E.g. 604.001 – Proceeds for Goods A, 604.002 Proceeds for Goods B.

Therefore, we monitor the performance of objectives using the accounting information system and at the same time we want to set the financial plan to be realistic and to reward its performance.

When the plan is created and performed we should use the “projection of consumer behaviour containing the following elements (Mareš, 2015, p. 411):

- a) sensitivity analysis of income and expenses of the consumer
- b) creation of future reserves of the consumer
- c) future income and expenses of the consumer”.

According to Mareš (2012, p. 120) the preconditions for the sensitivity analysis are

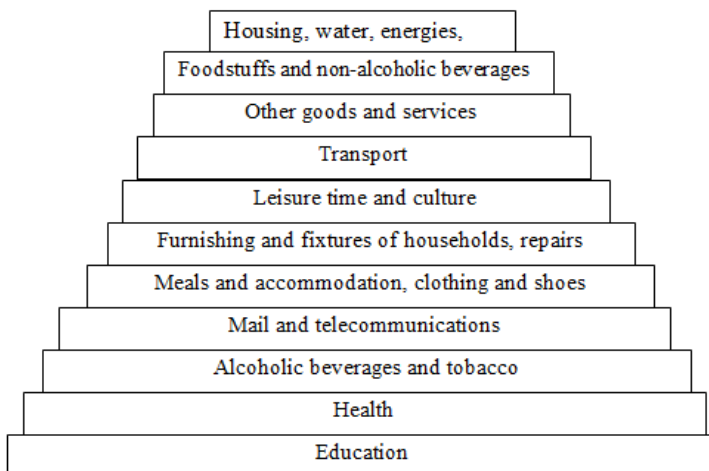
- a) history of natural person
- b) current situation of natural person (current income and expenses)
- c) future of natural person (perspective of ability to keep the job, future income and expenses and their variability).

Given the points above, we must clarify who our customers are from the following perspectives (Mareš, 2015, p. 411):

- a) economic situation of our customer (future, past with regard to the income)
- b) social status
- c) consumption preferences.

Then the preferences may be estimated or consumer expenditure – needs pyramids below can be created with regard to the consumer. Based on the above, we may e.g. draft a pyramid of consumer needs.

Figure 9: Pyramid of Consumer Needs

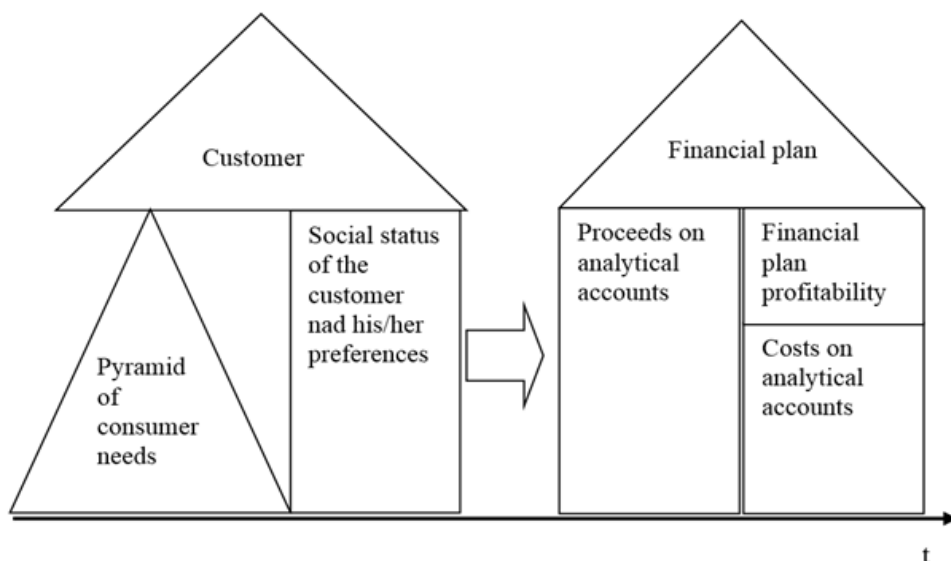


Source: Mareš, 2015, p. 412

From the above (we must take into account consumer behaviour in time, not only expenditures for the given items in the given year) we may analyse consumer behaviour who may change his consumer expenditures in time. In this case, the items are listed in order by their share in the consumer expenditures from the highest to the lowest share (Mareš, 2015). From the above, we may predict the invariability in the structure of e.g. consumer expenditures, i.e. movements between individual items based on consumer expenditures. At the same time, the changes in time against the preceding year can be analysed in order to analyse the trend.

On the basis of the analyses above, please see Mareš (2015), we may arrive to the main pillars of the financial plan creation.

Figure 10: Main Pillars of the Financial Plan Creation



Source: adapted from Mareš, 2015, p. 414

Conclusions

Given insufficient scientific basis of the problem, the author of this paper aimed to propose an efficient accounting and management system that gives a true picture of an economic reality with a direct relation to the consumer to achieve maximum effectiveness of financial planning and the business as a whole. Therefore, in the paper, the accounting information system and its role across the entire business is defined and "linked" to other subsystems of the business information system at the same time. In addition, the analysis and prediction regarding the estimated inputs and outputs of the accounting system and their use for both external and internal users were made. The conclusions were made with regard to linking the accounting information system to preferences and social status of the customer, both using Customer Relationship Management or through his consumption expenditures in relation to his consumption needs pyramid and preferences. The paper expands the scientific knowledge in broader context, as it does not examine the

given factors of business success separately, but rather in its entirety forming a direct link consumer – accounting information system – controlling – financial plan – performance of departments – business performance. On the basis of the previous research of the effective functioning of the firm in relation to the surrounding environment of the firm, the paper presents correct setting and use of links based on customer behaviour through the pyramid of consumer behaviours that are subsequently reflected in the fulfilment of the financial plan. If the connection is effective, this results in the best performance of the business and brings a comprehensive overview of the business management.

The author of this paper assumes that further research in different directions will be performed, e.g. by using international standards to measure the performance of individual branches in different states during the accounting period and their relation to the consumer behaviour and link to TOP management remuneration.

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