

Implementation of controlling in conditions of micro, small and medium industrial enterprises

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Abstrakt

This paper deals with the implementation of controlling in a group of small and medium-sized industrial enterprises (SMEs) in Slovakia. The business environment characterized by rapid and abrupt changes forces enterprises to innovate not only products, but also internal processes and management system. Enterprises therefore implement controlling, whose role is to support the management of the enterprise in making important decisions. This paper will analyse the application of controlling in SMEs based on interviews with business managers and a questionnaire survey. Large enterprises have implemented controlling, but SMEs face the task of implementing it. Therefore, the paper will describe the tasks that need to be accomplished in the different phases of building controlling in SMEs. It will conclude by highlighting the benefits of implementing controlling for the management of SMEs.

Keywords: controlling, micro, small and medium industrial enterprise (SME), implementation of controlling, tasks of controlling, phases of implementation of controlling in SME

1. Introduction

Small and medium-sized enterprises have an important position in the Slovak economy. The negative impact of the coronary crisis as a result of the spread of COVID-19 has changed the development of the global and also the Slovak economy. The spread of a new type of coronavirus and the consequent restriction of economic activity, particularly in the micro, small and medium-sized enterprise sector, has led to a decline in the performance of these enterprises. The sharp increase in energy and material input prices at the beginning of this year has further worsened business conditions for SMEs. The Slovak business agency's report on the state of SMEs in 2020 in the Slovak Republic states that the growth trend in the number of SMEs has been suspended in 2020. In absolute terms, their number was 597 171, i.e. 99.9% of all business entities. The pandemic has also contributed to a reduction in the number of new business entities. There was a 2% reduction in the number of SMEs established compared to

2019. In the structure of SMEs, enterprises from the service sector (47.4%) construction (18.1%), trade (16.9%) and industry (13.6%) were the most represented. SMEs accounted for 59% of total employment and around 54% of value added. In 2021, the number of SMEs increased to more than 634 000, their share of employment decreased by 0.8% and their share of value added increased by 11.9%. Industry remained the most important sector in terms of value added of SMEs.

The significant deterioration in external factors of the business environment is forcing SMEs to innovate their management system. One of the possible alternatives to strengthen their economic management is the implementation of controlling.

There is no clear definition of this concept in the literature dealing with the issue of controlling. Different authors define controlling from different points of view and each point of view gives the term controlling a different meaning. The definition of controlling as a set of rules that helps to achieve corporate objectives, prevents surprises and warns in time of impending danger requiring appropriate measures in management is well known [8]. Freiberg (1996) defines controlling as a specific concept of corporate management based on a complex interconnection of the planning and control process. Hofmeister, Stiegler (1991), Horváth (1992) understand controlling as directing and coordinating the activities of an enterprise in accordance with a plan so that the objectives of the enterprise are met. The closest to the social practice in the conditions of Slovak enterprises is the definition of controlling according to Foltínová et al. (2011), who characterize controlling as a continuous process aimed at the economic control of the enterprise through information.

From the perspective of practice, the range of tasks to be performed by controlling, the tasks of controlling are not clearly defined. In corporate practice, a core of tasks to be performed by controlling has been established. The main role of controlling is to support management by producing reports necessary for making the right management decisions. In today's dynamically evolving environment, controlling mainly performs an innovative and coordinating function, it is responsible for compiling planning, control and corrective information that is necessary to ensure that the company's objectives are met.

The most important tasks of controlling include [2, 9]:

- monitoring and adapting the business to the market situation,
- building a value, planning, information and control system for the needs of controlling,
- control of the achievement of the company's objectives based on forward linkage, i.e. control aimed at adapting or reformulating objectives triggered by a change in the environment,
- mitigating risk and seeking opportunities to ensure sustainable business growth,
- ensuring effective control of economic results in order to increase the economy, profitability and financial stability of the company.

The correct selection of a controller is important for the performance of controlling tasks. The controller must not only meet the high personal and professional requirements placed on him, but he must know the business processes and be able to continuously develop himself. The fulfilment of controlling tasks depends on the controller's abilities.

2. Method

The object of our research was to obtain information about controlling as a management support in small and medium-sized industrial enterprises (SMEs). Our aim was to find out the

status of implementation of controlling in this size category of enterprises on the basis of interviews with managers of enterprises and by means of a questionnaire survey. Our research hypothesis was that in micro and small industrial enterprises the controlling approach is oriented towards obtaining information needed for decision making, but medium industrial enterprises have controlling institutionalized and it performs operational management tasks in the areas of planning, cost and profit management, and also tasks in ensuring the financial stability of the enterprise. Based on the information on the implementation of controlling in SMEs, we have developed a proposal for its effective implementation or improvement.

Within the research we used the following methods of scientific investigation: the method of analysis, which was applied mainly in the examination of existing knowledge on controlling, the method of synthesis used in the generalization of information obtained from empirical research conducted in the form of guided interviews and questionnaire survey. Statistical analysis method was used in processing and interpreting the results from the questionnaire. The division of enterprises into size groups was based on the European Commission Recommendation 2003/361/EC.

The criteria for the enterprise size groups are shown in Table 1.

Table 1. Criteria for enterprise size groups

Type of enterprise	Number of employees	Annual turnover	or	Total assets
medium-sized enterprise	< 250	≤ € 50 mil.		≤ € 43 mil.
small enterprise	< 50	≤ € 10 mil.		≤ € 10 mil.
microenterprise	< 10	≤ € 2 mil.		≤ € 2 mil.

We characterise enterprises by size as follows:

- a micro-enterprise employs fewer than 10 employees, has an annual turnover of no more than EUR 2 million or has total assets of no more than EUR 2 million in the accounts,
- a small enterprise employing fewer than 50 employees, having an annual turnover of not more than EUR 10 million or having total assets in the accounts of not more than EUR 10 million,
- a medium-sized enterprise employing fewer than 250 employees, having an annual turnover of not more than EUR 50 million or having total assets in the accounts of not more than EUR 43 million.

A small or medium-sized enterprise is not an enterprise in which at least 25% of the capital or voting rights are controlled by one enterprise or jointly by several enterprises (exceptions are listed in the European Commission Recommendation).

3. Results

We used a questionnaire survey to obtain information on the current status and the need for improvement of controlling in the management system of industrial enterprises. In the questionnaire, we used both multiple choice and open-ended questions to obtain more detailed information about the application and benefits of controlling in the management of the enterprises surveyed. We divided the questions into the following areas:

- identification questions,
- controlling concepts,
- organisation of controlling,

- controlling tasks,
- controlling tools,
- software support for controlling,
- the benefits of introducing controlling and the future of controlling.

Points ranging from 1 to 10 could be assigned to each possible answer. The more important the factor under consideration, the higher the score assigned to it. On the basis of the scores awarded, the average score for each factor in a given group of enterprises was calculated.

A total of 28 micro and small industrial enterprises (70%) and 12 medium-sized industrial enterprises (30%) from the Western Slovakia region participated in the research, which was conducted at the end of 2021. The distribution of enterprises by size groups was based on the European Commission Recommendation 2003/361.

In terms of the subject of activity, 29 enterprises were mechanical engineering enterprises (manufacture of metal structures, manufacture of tools and jigs, manufacture of simple machinery and equipment), 5 enterprises of construction production, 3 enterprises of food production, 2 enterprises of the electrical industry and 1 enterprise of the chemical industry (Table 2).

Table 2. Structure of enterprises participating in the survey

Structure of enterprises	Micro and small enterprises		Medium-sized enterprises	
	Abundance absolute	Abundance relative	Abundance absolute	Abundance relative
• engineering production	22	78,57 %	7	58,34 %
• construction production	3	10,72 %	2	16,67 %
• food production	2	7,14 %	1	8,33 %
• electrotechnical production	1	3,57 %	1	8,33 %
• production of chemical products	0	0,00 %	1	8,33 %
Total number of enterprises by size	28	100 %	12	100 %

Controlling can be oriented to support planning and control, to achieve objectives and to provide information for decision-making. In dealing with the challenges of micro and small enterprises, the predominant orientation is towards achieving objectives, in particular profit generation. In medium-sized enterprises, controlling is focused on the achievement of corporate objectives, controlling their achievement and providing information for management. (Figure 1.).

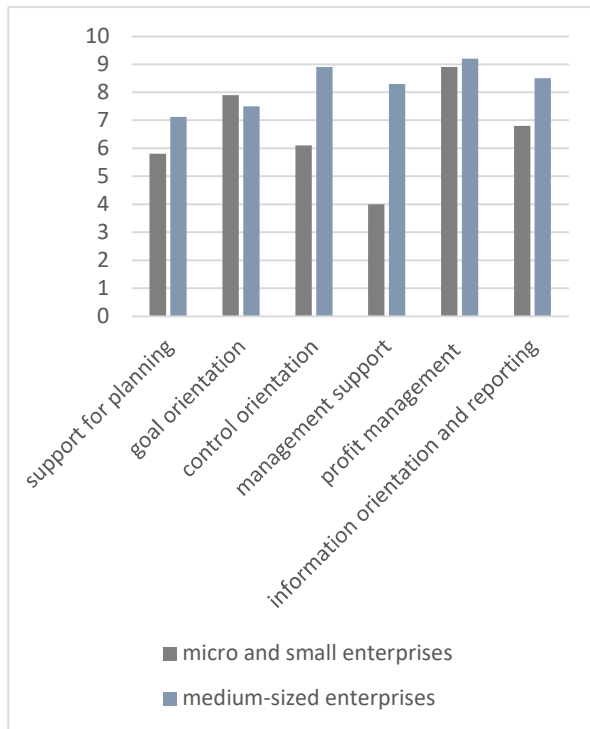


Figure 1. Controlling concept

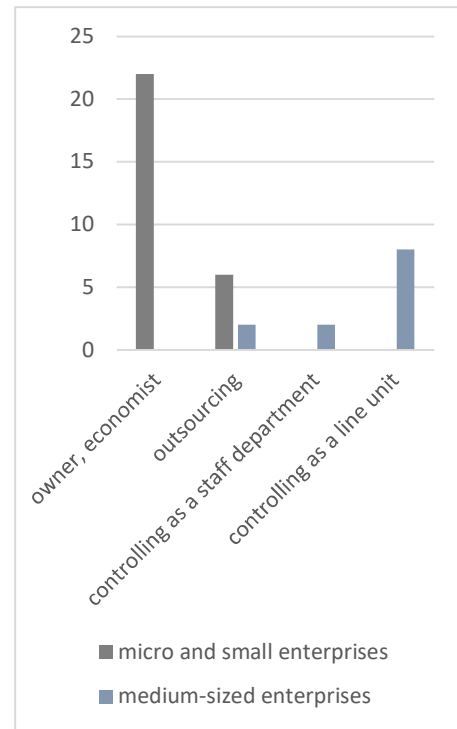


Figure 2. Controlling organization

In micro and small industrial enterprises, controlling tasks are mostly performed by the owner of the enterprise in cooperation with an economist; some enterprises reported that they use outsourcing.

This is due to the fact that the owners are also managers and do not have sufficient knowledge and experience in the field. The tasks of controlling in medium-sized industrial enterprises are performed by an institutionalised unit set up as a staff unit or as a line unit at the second level of management. Outsourcing is little used by enterprises (Figure 2).

Depending on the size of the enterprise, different importance is attached to the tasks of controlling. In SMEs, tasks in the strategic area are not given as much emphasis as in large enterprises. This is related to the fact that medium-sized and especially small enterprises are able to adapt more flexibly to market changes. However, as they are more vulnerable in the economic area, controlling mainly performs tasks in the operational area of management in enterprises of this size. In micro and small enterprises, short-term operational planning is predominant, and controlling the implementation of the plan is the task of the owner or the senior employee (managing director, head of operations, head of production). In this type of enterprise, management is focused on achieving the planned turnover, efficient use of resources, ensuring liquidity and profitability. Controlling in medium-sized enterprises focuses on the preparation of the basis for planning, coordinates all departments of the enterprise in the compilation of corporate plans, carries out control of the implementation of corporate plans, detects deviations in the implementation of plans, following the detected deviations, together with the employee responsible for the occurrence of deviations, proposes measures to eliminate them. Controlling controls the implementation of corrective measures and evaluates the results of its implementation. In addition to the tasks related to planning and controlling the implementation of the plan, controlling in the operational area of management focuses on the evaluation of economy and profitability. Controlling evaluates the transparency

of cost and revenue generation. The role of controlling is also to manage the cash flows of the enterprise, i.e. to ensure liquidity (Fig. 3).

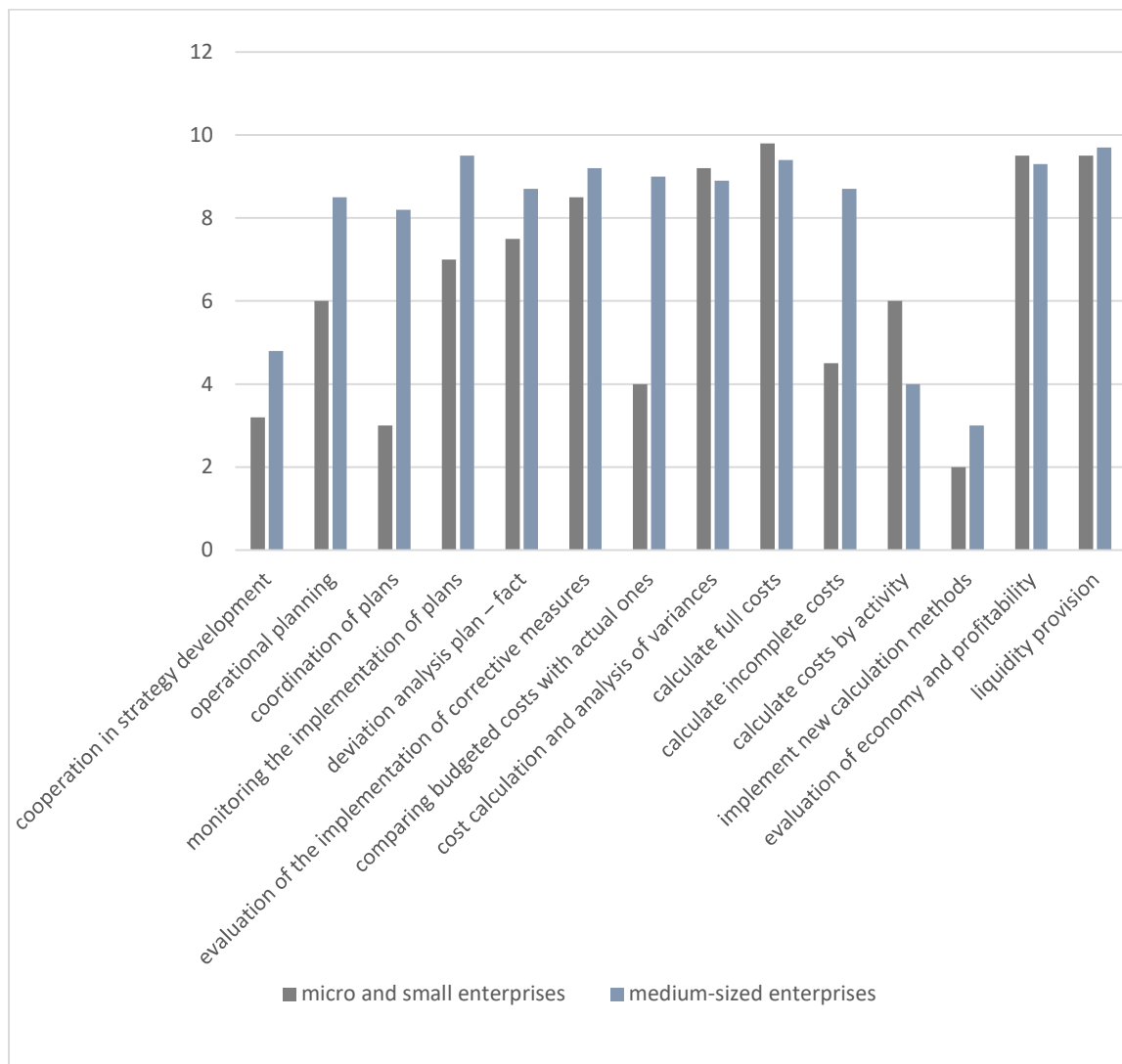


Figure 3. Controlling tasks

The basic information sources of controlling include plans, accounting and costing. Plans set out the objectives to be achieved. By comparing actual results with planned ones, controlling reveals bottlenecks and proposes solutions to eliminate them. The detail of planning depends primarily on the size of the enterprise and the scope of the business. Micro and small industrial enterprises that do not have a fixed production programme but produce to order can make do with planning turnover, revenue/income and costs/expenses. Important plans for the economic management of medium-sized industrial enterprises are the sales plan, revenue, cost and profit and loss budgets. When comparing the planned and actual values of the above indicators, it is important to take into account the actual volume of the enterprise's output (production capacity utilisation).

Another source of information for micro-enterprises is simple accounting or records of income and expenditure, for small and medium-sized enterprises using double-entry bookkeeping, financial or intra-organisational accounting.

The source of information for cost management along the line of business performance is costing. Small enterprises emphasise full costing. Medium-sized enterprises attach the greatest importance to full costing and incomplete costing; newer costing methods are of little or no importance.

Full costing is a tool for controlling costs per unit of output. The actual cost of output quantified in the final costings is compared with the projected cost in the preliminary costings. The comparison of planned costs with actual costs is used to check cost-effectiveness. The detection of cost variances and their causes is the basis for the submission of corrective measures measured to eliminate the variances. In addition, full costing is the basis for pricing. In relation to price, they make it possible to ascertain the actual amount of profit per unit of output.

In medium-sized industrial enterprises, controlling also works with incomplete costing (variable and fixed costing. On the basis of incomplete calculations, controlling develops recommendations for decision-making, e.g. in the field of production volume planning, production programme structure, minimum price setting.

In order to perform its tasks, controlling needs a lot of information not only about the value flow in the enterprise, but also about all ongoing business processes. Controlling has to analyse and evaluate a lot of information, therefore controlling cannot do without software support. Medium-sized enterprises in particular have an SAP system with a controlling module in place and use internal software tools. Small enterprises mainly use MS Excel spreadsheets for planning and economic management.

4. Discussion

Controlling as a department or as a part of the management philosophy is implemented in a group of medium-sized industrial enterprises. In the group of micro and small enterprises, controlling as a part of management is implemented by the owners together with a senior employee or an economist. Irrespective of the size of the enterprise, outsourcing is little used, although it is worthwhile for micro and small enterprises to seek an external firm, as the benefits to the enterprise are expected to be greater than the cost of the service provided.

The owner and managing director of GIST Consulting, s.r.o., Milan Příbyl, which provides consulting and software in the field of controlling, states: „*Our credo is to be a fair and reliable partner for you, our customers, giving you the tools to make the right and timely decisions. Our solution gives you accurate information and saves you time and money. We always honor the win-win principle.*“

Despite the fact that a smaller number of SMEs participated in our questionnaire survey, we can indicate that controlling ensures control of the fulfillment of corporate objectives and plans, i.e. compares the plan and reality, analyzes deviations, the causes of their occurrence and presents corrective measures. Controlling also focuses on cost management and ensuring liquidity. In this respect, the practice and theory of controlling do not fundamentally diverge. Poor quality reporting due to lack of experience in working with data can be a problem for SMEs. In the experience of controlling consulting and software support companies, the controller just collects, stores, sorts and submits the report, and the controller's job is usually over. Controlling, however, represents the next step forward. It is to use data to extract new context and information, to synthesise knowledge from the information on which to base good decision-making. This requires not only medium-sized enterprises but also small businesses to implement software to help with planning, operational accounting and business management.

In the future, it can be expected that enterprises will develop controlling, improve enterprise information systems so that controlling has enough timely and relevant information about enterprise activities. Enterprises are considering the possibility of introducing new tools and methods of controlling for more effective evaluation of the achieved results. Enterprises that do not have controlling in place are planning to build it up in the near future.

The issue of controlling implementation is described in the works of several authors who agree that the implementation of controlling is a process that should be implemented in several follow-up phases.

The building of controlling depends on the size of the enterprise, on the industry in which the enterprise operates, on whether the enterprise carries out the building of controlling in-house or by contractors, on whether it is the initial introduction of controlling or whether controlling is already in place in the enterprise. . There is no universal methodological procedure for the implementation of controlling in enterprises. Baran (2015) suggests building controlling in the following stages:

- baseline analysis,
- formulation of controlling objectives,
- determination of the controlling organisation,
- staffing of controlling, training of controllers,
- determination of tasks and formulation of controlling outputs,
- trial period of controlling,
- full integration of controlling into business management.

We are of the opinion that the implementation of controlling is a challenging, unique process both in terms of time and in terms of the complexity of the tasks that need to be solved, and therefore the initial building of controlling should be organized as a project, the phases of which are:

1. pre-project phase: in this phase, on the basis of the analysis of the current state of the economic management of the enterprise, the need for the introduction of controlling as a management support arises. The formation of controlling awareness is an important aspect for the decision of owners and managers on the need to introduce controlling in an industrial enterprise.
2. project conception: this phase ensures the development of the project brief, the formulation of the objectives and the preparation of the feasibility study as a basis for project approval. Once the project has been approved for implementation, a project team is assembled.
3. project development: the content of this phase is the detailed planning of the project, the determination of activities, deadlines, resources needed to implement the project, including the cost of the project and the organization of controlling.
4. implementation phase: during the implementation of the project, the planned activities are carried out. As this phase is extensive in time and content of activities, it is appropriate to divide this phase into phases, which are relatively separate and coherent parts of phases separated by milestones.
5. Control phase - the control is carried out as:
 - interim control during project implementation, which is aimed at checking the progress of project implementation, compliance with deadlines, budgeted costs,

- a final check aimed at evaluating the project, meeting its objectives and assessing its benefits.
6. end of the project: at this stage, the sustainability of the project or the need to continue the innovations started in the form of a new project is considered.

The introduction of controlling or a controlling philosophy in SME is a prerequisite for companies to be able to:

- improve control of the implementation of corporate plans,
- respond more flexibly to the changing business environment,
- detect imminent risks and highlight real deviations from desired developments,
- better analyse and evaluate the effects of business activities.

5. Conclusion

The issue of controlling in the current period remains topical. On a daily basis, the management of an enterprise must make decisions that ensure the sustainable position of the enterprise in the market in strong competition and also have an impact on the sustainable economic performance of the enterprise. Therefore, controlling is of great importance in business management, whose tasks consist in coordinating the management of the enterprise, in providing relevant information for the management of the enterprise, so that the planned objectives are achieved by sustainable use of the enterprise's resources. Controlling as an effective tool of corporate management is implemented in many SMEs. Enterprises in which controlling is implemented must focus on its improvement in the future. Other enterprises that do not have a controlling system in place are faced with the task of implementing it. The process of implementing controlling in enterprises is difficult and requires a longer period of time, but its benefits for the management of the enterprise are indisputable. For example, controlling helps to maintain the company's position in the market, reveals opportunities and risks in the market, its mission is to ensure sustainable stability and prosperity of the company.

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