

# Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

Agnieszka Bieńkowska, Zygmunt Kral, Anna Zabłocka-Kluczka

## Abstract

In the study, the need for the research of controlling solutions adopted in practice has been justified. Furthermore, the authors have presented the results of the research into the functional solutions of controlling applied in big enterprises in Lower Silesia. They have also characterised the concepts of controlling adopted in those enterprises as well as the coordination function of controlling and the types of controlling. The research results have been presented from a general perspective as well as from a perspective which takes into account the period of controlling use and the level of environment changeability as key criteria of diverse results.

## Keywords

controlling, functional solutions, big enterprises

## Introduction

It is assumed that nowadays controlling constitutes an effective method supporting management. It is particularly present in relation to big enterprises, especially those operating in changeable and turbulent environment conditions. As a rule, big enterprises can be characterised by a developed organisational structure, which makes it difficult to perform the coordination actions between particular functional areas of activity.

This phenomenon intensifies in the case of environment changeability or turbulence which also implies the increased changeability of the executed tasks. This, in turn, means difficulties connected with the integration around the adopted purposes of an enterprise. In the aforementioned conditions of activity, it is just controllers – as the executors of controlling tasks – who can effectively support management actions. Every time, however, it requires the adoption of defined solutions in terms of this support.

The literature on the topic provides much information on the broadly understood controlling tasks. They pertain to both the organisational, instrumental solutions as well as those functional ones. All of them are essential from the point of view of the correct execution of controlling tasks. It is just the scope and the method of controlling task execution that influence the effectiveness of this concept of management support.

However, while the controlling solutions are commonly known in theory, the same cannot be said about their forms adopted in the practice of enterprise management. So far in Poland there has not been broad and comprehensive research into the forms of controlling tasks. The research has been connected with either the specific aspects of controlling or controlling solutions in particular types of enterprises. Thus, such research does not give a full view of the discussed topic.

Yet, the knowledge of controlling tasks applied in the practice of enterprise management is vital. It allows to determine the level of excellence of these solutions – their quality in relation to the theoretical solutions. The methodical research into the forms of controlling tasks will constitute the basis for determining the trend of controlling change. Both will be used by enterprises to perfect the controlling solutions adopted by them.

In order to fill in the gap of the knowledge of controlling tasks applied practically in the management of enterprises functioning in Poland, the authors have carried out a detailed study in this field. This study has concerned most of all the three abovementioned types of controlling tasks. It is just the presentation of the research results in relation to the functional solutions of controlling constitutes the major aim of the present article (the presentation of the research results connected with the organisational and instrumental controlling solutions has been or will be presented elsewhere in another article).

The obtained research results encompass in particular the concepts of controlling adopted in practice, the essence and the scope of coordination as the main function of controlling and the applied types of controlling. They pertain to big Lower Silesian enterprises which have implemented controlling, also in sections referring to controlling use period and the type of environment as the important criteria differentiating the research results. The detailed considerations are preceded by the presentation of the research technique as well as of the selection and description of the research sample.

### **1. Research technique as well as the selection and description of the research sample**

The research has been carried out by means of the survey technique. The request to fill in the survey was directed to the person responsible for the implementation and functioning of controlling in an enterprise, and if it had been implemented, to the director of finance department, the director of management accounting department or to the representative of the chief executives.

In order to assess the required number of the sample, the authors have adopted the model of dependent unlimited drawing, at the unknown anticipated order of the assessed fraction of the enterprises with controlling. The authors have taken into account the number of the general population of big Lower Silesian enterprises valid at the end of 2007 (as of October 31, 2007 it amounted to 364 [11, table IV]), at the trust rate being 0,90 and with the assumed maximal assessment error being 10%, and thus the required number of the sample was 58.

56 big enterprises of different sectors participated in the research. From among all the enterprises under study, 45 (80,35%) have implemented controlling. 40% of them implemented controlling solutions before 2000, somewhat above 42% of all the enterprises under study have been making use of controlling solutions for less than eight years, almost 18% have not given the length of controlling use period.

The research results presented in the next part of this article concern only the enterprises which have implemented controlling. Almost two thirds of them are purely production enterprises, one fifth of them – service enterprises and to a small extent – trade enterprises (which constitute only 7% of the analysed enterprises). Among the respondents, the number of the enterprises with Polish capital almost equalled the number of the enterprises with foreign capital, however, there was a slight advantage of Polish enterprises and the enterprises with the bigger part of Polish capital (somewhat over a half of the enterprises under analysis). Almost one third of the enterprises under study which have implemented controlling function only on the domestic market, somewhat more than every third enterprise run their business activity on the international market and more or less twice as many – on the multinational and global markets [5, p. 66].

## **2. The concepts of controlling**

In the present study, four most frequently quoted (in the literature on the subject) concepts of controlling have been taken into consideration. They have meant controlling understood as:

- broad financial accounting,
- information management support,
- management coordination,
- particular form of management (on the basis of [13, pp. 19-28; 10, pp. 25-36; 4, pp. 22-28; 8, pp. 13-16]).

Controlling treated as broad financial accounting was historically the earliest concept. It was a result of the shortcomings present in traditional financial accounting as regards decision making in the process of management, especially in the conditions of environment changeability. When the former financial accounting did not provide information required for decision-making, it was broadened most of all by modern cost accounts, controlling account of results and budgeting. However, it was not vitally reflected in the organisational solutions of accounting functioning. When the level of competition was growing even stronger, especially big enterprises started to create, in the organisational sense, next to the classical financial accounting, the so-called management accounting. Its key task was a stronger and more systemic information management support connected with obtaining, processing and transferring information to decision-makers. Therefore, this concept of controlling was called in this way. The information suitable for decision-making was necessary both for the chief executives as well as for the separate responsibility centres. It included financial and non-financial information, it pertained both to the future as well as to the past. In particular, obtaining and processing information required to have appropriate methods, techniques and tools. This meant the management accounting employees' necessity to become familiarised with them and even to work out and implement the new ones, fully allowing for the needs of an enterprise.

The coordination concept of controlling – as the fullest and most appropriate concept seen from the perspective of the needs of management support – grew out of the difficulties encountered while performing the managerial actions by the managerial staff in an enterprise in the conditions of high task changeability. It refers mainly to the coordination actions – either assigned directly to the managerial staff or for which the managerial staff were made responsible – as well as to the monitoring of particular management functions and participation in their fulfilment.

In the presented concept of controlling in a broader perspective, these functions of controlling can be referred to actually the whole management, however, in a narrower perspective (which is adopted more frequently) – to two functions of management: planning and control. Furthermore, they can be referred to steering (understood as prior reacting to the anticipated future deficiencies) and to providing information. The controllers, as the performers of controlling functions, support the chief executives and responsibility centres in the fulfilment of these functions, without assuming, in the majority of cases, the rights to make decisions.

Finally, in the fourth concept, “controlling serves the function of steering in the whole economic system by uniting in one complete system of planning, the system of access to

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

information and control as partial management systems, which is a whole for itself” [6, p. 116] (quoted after [13, p. 24]). The abovementioned four areas are present in this case, most of all, on the strategic level referring both to an enterprise as a whole and to its particular functional areas. Thus, in such areas the controllers take over from managers part of managerial tasks, with the possibility to make decisions in these areas. This means practical identification of controlling with management.

In the enterprises under study, all concepts of controlling (Figure 1) are present. The most common one is the coordination concept which is given by approximately one third of the respondents which have implemented controlling. The second place (with only a little worse results – approximately 30% of the enterprises under analysis) is occupied by controlling as information management support (management accounting). The remaining two concepts are mentioned definitely by the smallest number of respondents: controlling understood as a particular form of management is quoted by 22% and controlling understood as financial accounting – by approximately 14%. The presented results are in accord with the authors’ expectations. It seems that this is the order in which the importance of the concept of controlling seen from the perspective of the level of managerial task support should be determined. The big number of the enterprises under study may have some influence on the order of controlling concepts obtained in the research.

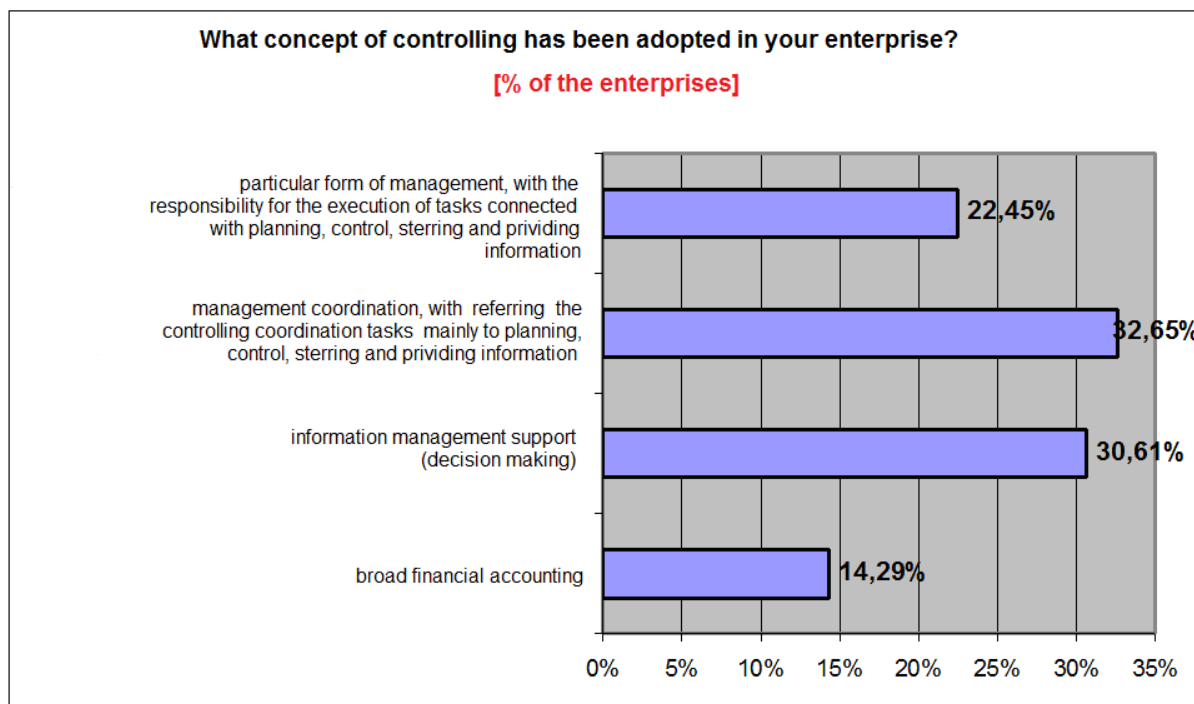


Figure 1. The concepts of controlling in the enterprises under study. Source: the authors’ own study.

What was also interesting was the answer to the question concerning the total use of particular concepts of controlling in the enterprises. Owing to their essence, both controlling as management coordination as well as a particular form of management could be used alone but they could also be accompanied by either broad financial accounting or management accounting. It turned out that among all the enterprises which have implemented controlling as management controlling, in one third of them, this concept is used alone, in less than 7% of the enterprises under study it is completed with broad financial accounting and in 60% – by management accounting (Figure 2). As far as the

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

concept of controlling as a particular form of management is concerned, it was opposite. In fact, this concept is used alone in a similar percentage of the enterprises, in which it has been adopted (in approximately 27% of the enterprises) but it is accompanied by broad financial accounting in approximately 36% of the enterprises and by management accounting in approximately 18% of the enterprises (twice as many enterprises under study did not select the answer (Figure 3)). It is difficult to justify the quoted tendency of controlling being accompanied by management coordination and by a particular form of management or management accounting. It seems that in the case of the coordination concept of controlling in big enterprises, it results from the need to support it by a wider spectrum of tools for the use of management focused in management accounting. In the enterprises with controlling as a particular form of management, supporting on such a scale by management accounting may be unnecessary due to the fact that the enterprises have at their disposal specific management tools used in the course of performing the tasks characteristic of this concept of controlling.

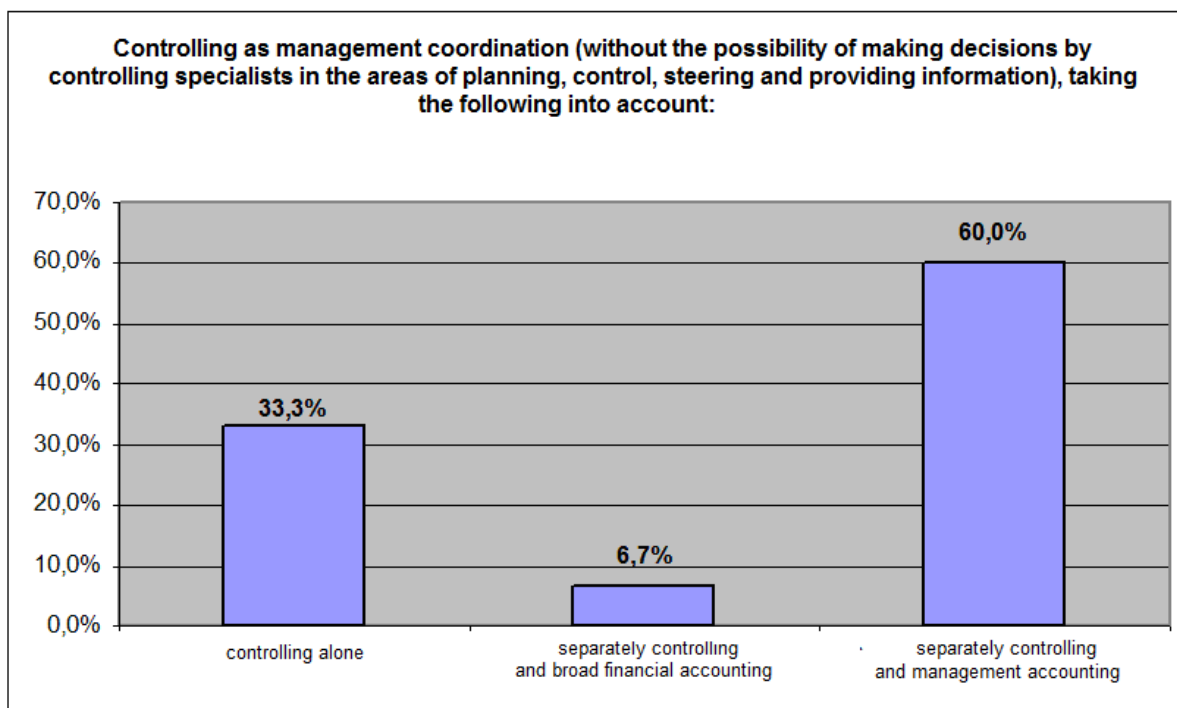


Figure 2. The use of the concept of controlling as management coordination in the enterprises under analysis alone and together with other concepts. Source: the authors' own study.

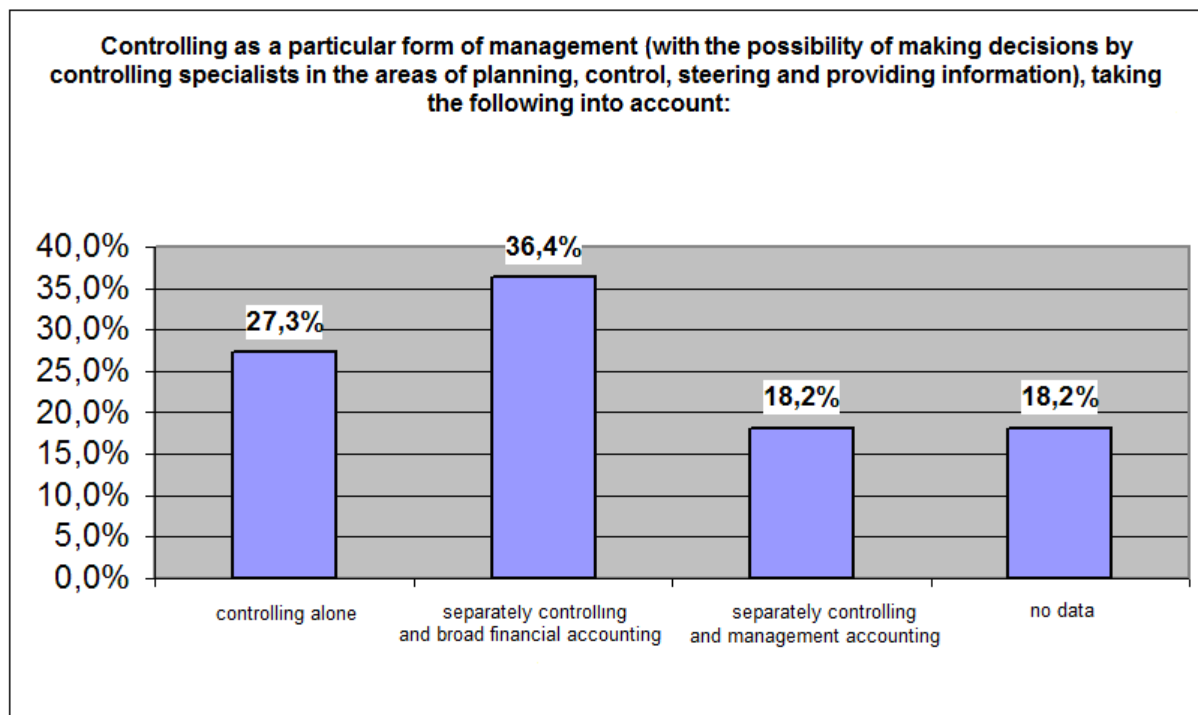


Figure 3. The use of the concept of controlling as a particular form of management in the enterprises under analysis alone and together with other concepts. Source: the authors' own study.

From among the applied criteria, the most interesting results have been obtained for the criterion of controlling use period (Figure 4). From this point of view, the highest diversification of the results concerns controlling as broad financial accounting. Only 8,7% of the enterprises under analysis with controlling use period shorter than 8 years and as many as every fifth enterprise with controlling use period longer than 8 years point to this concept. It is not an easy task to find the reason for such a distribution of the results because a reverse tendency should have been expected. However, as regards the obtained results for the remaining concepts of controlling, they are more in accord with the expectations. A slight differentiation of the results refers to controlling as information management support and as a particular form of management. These concepts are more frequently adopted in the enterprises with shorter controlling use period. The former one is mentioned by fewer than 35% of the enterprises with such controlling use period and 30% of the enterprises with longer controlling use period. The latter one, however, is mentioned by 26% and every fifth enterprise, respectively. Almost identical results for the enterprises with different controlling use periods (approximately 30%) have been obtained for the coordination concept of controlling.

As for the criterion of the level of environment changeability, what can only be said (in accord with the expectations) is that in the case of a stable environment, the most frequently applied concept of controlling is the one as broad financial accounting (by approximately one third of the enterprises) and the concepts of controlling of "a higher level" are adopted more and more rarely: controlling as information management support and management coordination – in above 21% of the enterprises, controlling as a particular form of management – in only 9% of the enterprises. In the case of a changeable environment (turbulent environment has not been mentioned), the tendency is reverse (with the exception of one case): controlling as broad financial accounting is not indicated at all, controlling as information management support is indicated by fewer than 36% of the enterprises under study, controlling as a particular form of management by as

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

many as 64% of the enterprises. One departure from the tendency occurs in the case of controlling as management coordination which is indicated by more than every third enterprise functioning in a changeable environment. It probably shows the predominance of solving content-related problems in management (in particular, referring to enterprise development) over coordination problems in a changeable environment.

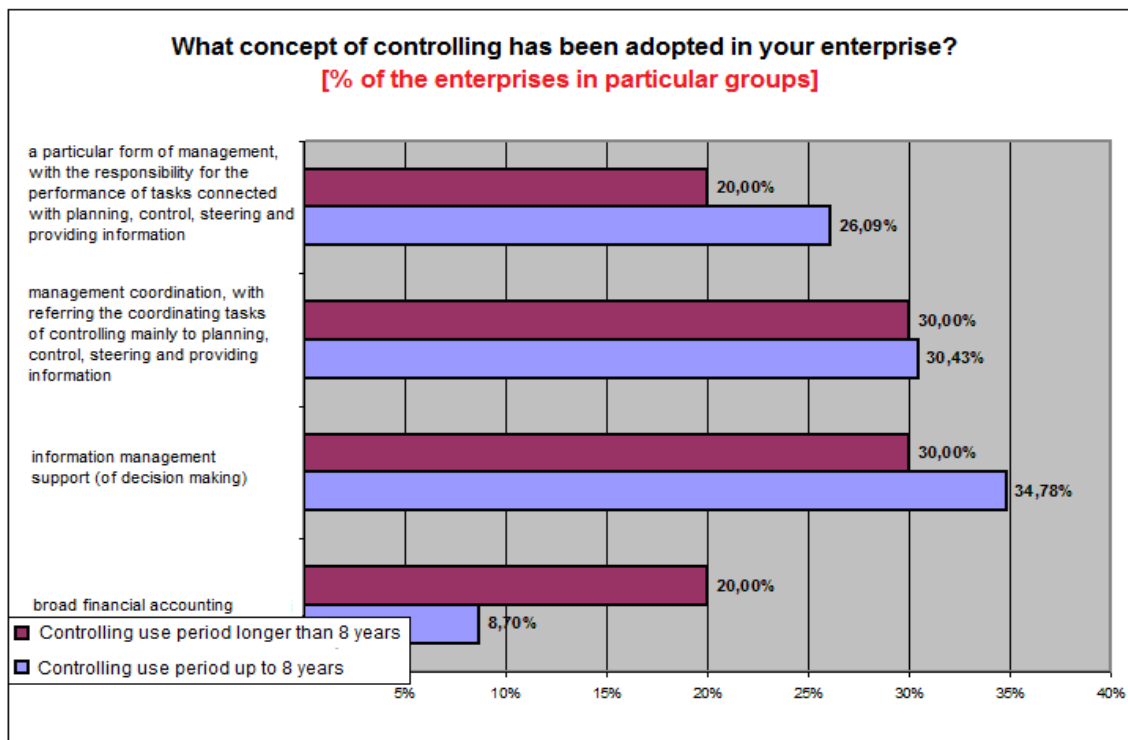


Figure 4. The concepts of controlling with reference to controlling use period in the enterprises under study. Source: the authors' own study.

### 3. Coordination in controlling

It is assumed that coordination is the basic function of controlling in its coordination concept. With reference to controlling, it encompasses the process of integrating, or more specifically – agreeing upon, the tasks and activities of different internal units of an enterprise as well as the environment and enterprise, mainly in the area of planning, control, steering and providing information. As has been above-said, the controllers as the executors of controlling tasks do not do the managers' job relating to performing the coordination activities but only help managers to do those activities.

Thus, in the research process, the authors have distinguished all of the more important tools adopted by enterprises in the process of integrating tasks and activities. What the authors had in mind was finding the answer to the question of what coordination tools are used in the enterprises under analysis and what, in this context, the controllers' participation in the coordination function fulfilment is. It has been thus assumed that the coordination of planning, control, steering and providing information may be performed in the following manner:

- through managers of different levels within the framework of superior supervision,
- through the adopted guidelines for conduct (the principles and procedures included in the programmes and action schemes, adopted earlier),
- on the basis of self-agreement between the interested task performers,

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

- through a special organ (enterprise position, committee, board, task teams, department, division etc.) called into being just for this purpose,
- through the controlling specialists [7, pp. 351-353; 12, pp. 204-216].

It is claimed that when the level of interdependence between the internal units of an enterprise and the environment and enterprises is not so high, “(...) a sufficient coordination mechanism might be the hierarchy or the principles and procedures” but if the level of interdependence is higher – other coordination tools are needed ([7, p. 353].

It turned out that in the enterprises under study all coordination tools are used (Figure 5). However, the most commonly applied one is coordination through the controllers, which is not surprising in big enterprises – and through the organisational hierarchy – the managers of different levels of management. The former tool is mentioned by two thirds of the respondents whereas the latter one – by somewhat above 60% of the enterprises under study. Fewer than a half of all the respondents indicate the coordination through the adopted guidelines for conduct – the programmes and action schemes. Only slightly more than 13% of the enterprises under analysis make use of coordination on the basis of self-agreement between the interested task performers and only fewer than 9% of the enterprises by a non-controlling organ formed for this purpose. It might be claimed that in the case of using controlling in big enterprises, self-agreement becomes less important. The same can be said about the performance of the coordination activities by means of a unit formed especially for this purpose. However, coordination through standardisation (by means of the programmes and action schemes) has a universal meaning.

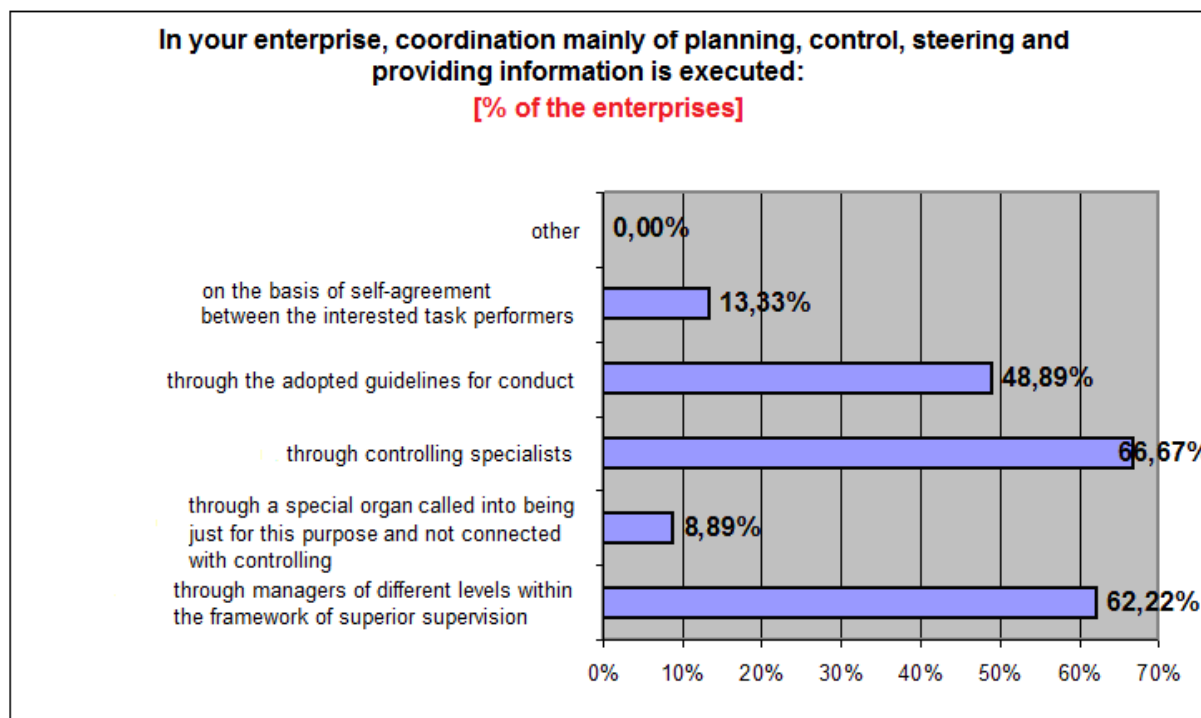


Figure 5. The tools of coordination in the enterprises under study. Source: the authors' own study.

Taking into account the scope of the use of coordination tools in the enterprises with different controlling use periods, the obtained results do not show any significant diversification of those tools (Figure 6). The majority of coordination tools in both groups of the enterprises are adopted equally often and do not differ much from the general results. What can only be noticed is a slightly more frequent use – unlike in the case of the general

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

results – of coordination by the managers of different levels of management within the frameworks of superior supervision in comparison to coordination through the controllers in the enterprises with controlling use period longer than 8 years and in the enterprises of the same type which have had controlling for more than 8 years, the participation of the tools is the same. This frequency in the first case amounts to 72%, and in the second case, it pertains to two thirds of the enterprises. In the enterprises with shorter controlling use period, coordination through a special organ (not connected with controlling) called into being just for this purpose is not indicated at all. It might be the result of assigning tasks of this type of coordination to the controllers. A characteristic feature of coordination tools in big enterprises is also a higher participation of each coordination tool in the enterprises with longer controlling use period in comparison to the enterprises with shorter controlling use period. It may indicate a higher awareness of the significance of coordination of the execution of the tasks of planning, control, steering and providing information in these enterprises. And this awareness may be so, as might be assumed, thanks to controlling.

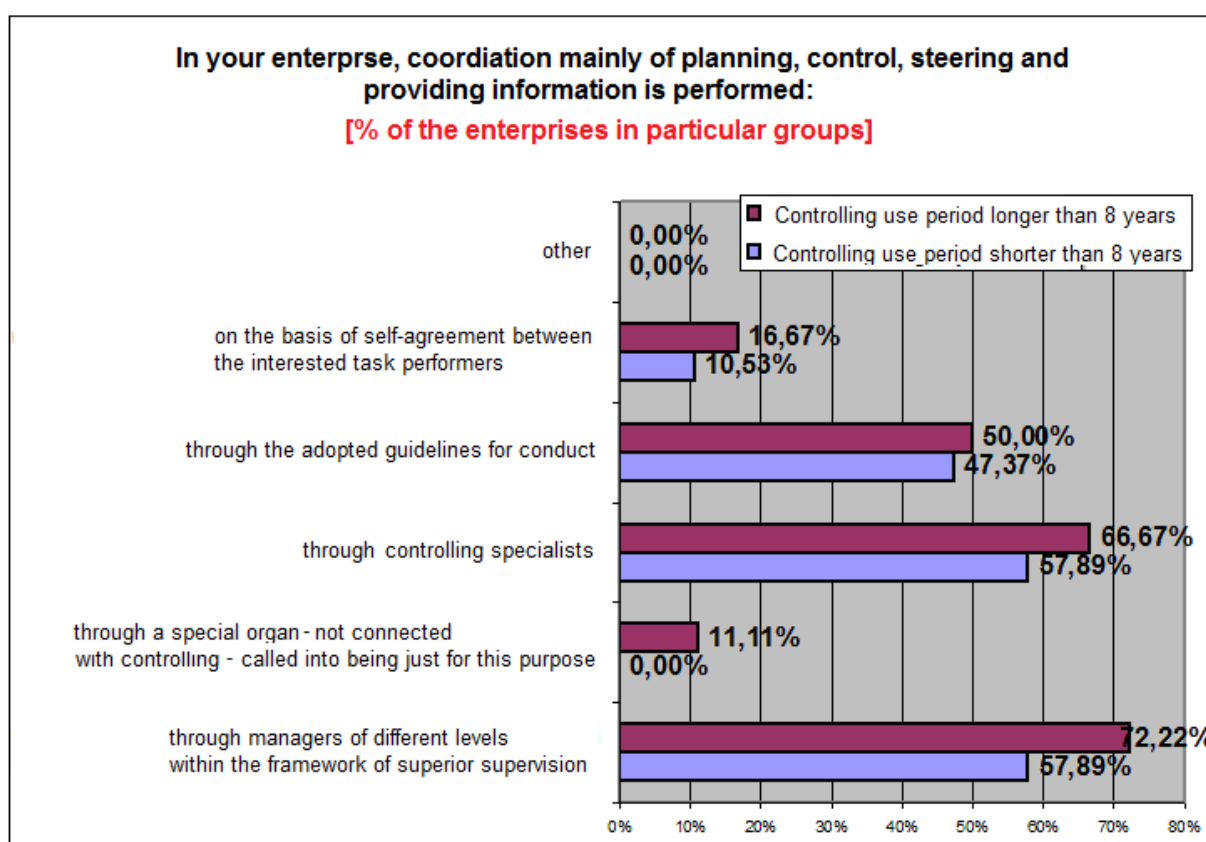


Figure 6. The tools of coordination, depending on the controlling use period in the enterprises under study. Source: the authors' own study.

As far as the research results of the application of coordination tools in the enterprises with different environment changeability are concerned, no uniform regularity has been observed. Coordination performed by controlling specialists in the enterprises with the abovementioned criterion taken into account is characterised by a similar participation, which is rather surprising. What should have been expected was a higher participation of this kind of coordination along with the increase in the level of environment changeability. The participation of coordination being in the hands of the managers of different levels of management within the frameworks of superior supervision decreases while the level of environment changeability increases, which is what was to be expected. What increases is the participation for other coordination tools – through the adopted guidelines for conduct

(only for a turbulent environment), which is again surprising, and on the basis of self-agreement between the interested task performers and through a non-controlling organ called into being just for the purpose of coordination. In the last two cases of coordination, its formation is understandable. The increase of the participation of those tools implies the changeability of the performed tasks and purposefulness of transferring the decision-making rights in such conditions to the lower elements of the organisational structure. Irrespective of the tendencies presented here, what is characteristic is the bigger participation of those tools in the enterprises functioning in a stable environment in relation to the enterprises functioning in a relatively stable environment or even in a changeable environment, which is understandable only for coordination executed by the managers as well as through the adopted guidelines for conduct.

As has been stated, coordination can be executed through the adopted guidelines for conduct – that is – the adopted principles and procedures resulting from the programmes and action schemes. It is particularly important from the controlling point of view and in this form it refers not only to planning (and within planning, to programmes and action schemes) but also to the other elements of controlling in its coordination concept, that is, to control, steering and providing information. In every case, it requires, on the one hand, creating, implementing and perfecting the systems within the enumerated elements (that is, preliminary coordination) and connecting those systems but, on the other hand, it requires performing the current tasks of planning, control, steering and providing information (that is, coordination proper) [1, p. 30]. Of course, the tasks being parts of the abovementioned processes should be in the hands of the managers and the participation of the controllers in coordination understood in this way may consist in cooperation in performing the tasks of those processes or monitoring the correctness of their execution.

The results of the research have proved that the controllers, to a bigger extent, perform the coordination tasks as regards the activities connected with planning, control, steering and providing information (Figure 7). It is claimed so by approximately as many as 82% of the enterprises. The tasks of creating, implementing and perfecting the systems connected with the abovementioned elements of controlling as well as the connections between those systems are also in the area of controllers' interests but to a lesser extent because in approximately 62% of the enterprises. Only slightly more than 2% of the enterprises do not display the controllers' participation in any of the aspects of performing the tasks of planning, control, steering and providing information. The same number of enterprises stresses the connection between the controllers and the other aspect of performing the abovementioned tasks although they do not state what aspect it is. This tendency should be deemed surprising. It is so because what might have been expected was the higher participation of the controllers in the process of creating, implementing and perfecting the systems as the elements of controlling and the lower participation in performing the current activities belonging to these elements. Such a suggestion results from referring, to a bigger extent, the tasks of controlling to strategic (developmental) aspects of an enterprise and not to the operating (current) ones and such a strategic aspect could be seen more in the process of creating, implementing and perfecting the systems of planning, control, steering and providing information as well as the connections between those systems. Thus, there should be an attempt to change the tendency observed in the research.

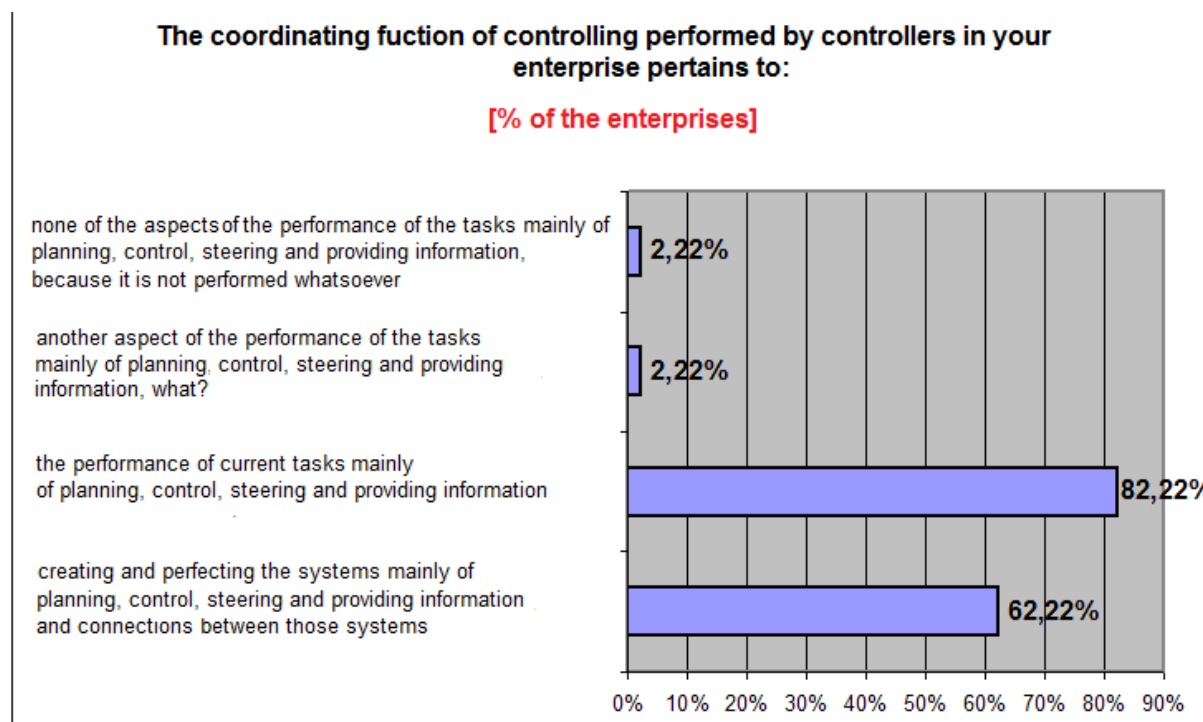


Figure 7. Coordination in controlling by means of adopted guidelines for conduct in the enterprises under study. Source: the authors' own study.

What is characteristic is that in the enterprises with controlling use period being longer than 8 years, the participation of controllers in the process of both creating, implementing and perfecting the systems of planning, control, steering and proving information as well as in the performance of current activities in this area increases, as compared to the enterprises with controlling use period being shorter than 8 years. While the difference between the results connected with the first aspect is rather small, it is quite significant for the second aspect and fluctuates from approximately 89% to approximately 68%.

A similar tendency concerns the aspects of the controllers' performance of controlling coordination function, depending on the level of environment changeability. Generally speaking, the more changeable environment is, the bigger controllers' participation in the process of creating, implementing and perfecting the systems connected with the elements of controlling as well as in the performance of current tasks connected with those elements is. In the case of a turbulent environment, all enterprises show the controllers' participation in both types of processes of the coordination under discussion.

From what has been said so far it explicitly emerges that the basic reference areas for controllers' tasks – that is, the areas to which the coordination function of controlling pertains, especially in the frameworks of its coordination concept – are planning, control, steering and providing information. Within those areas, known as controlling elements, one can distinguish narrower aspects and referring the coordination function of controlling (or more broadly defined functions of controlling) to them allows to distinguish the tasks of controlling. Initially, the tasks concerned financial matters of an enterprise. However, in the course of time, they were broadened and today they refer basically to all aspects of enterprise management as well as to management in particular functional fields. Nevertheless, the economic and financial problems of controlling are dominating especially due to the fact that they are strictly connected with the issues (not connected strictly with finances) belonging to other functional areas of an enterprise. Thus, in the research process by referring the coordination function of controlling to particular elements of

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

controlling and by distinguishing narrower issues in them, the authors have adopted such a point of view. Additionally, they have considered the strategic and operating (the second one – secretly) aspects as well as informative and reporting one. The authors have aimed, in particular, to find the answer to the question of to what extent the coordination function of controlling concerns:

- strategic planning and strategic control and analysis,
- cost planning (budgeting) and cost control,
- financial planning and financial control,
- economic-financial analysis,
- preparing task execution reports and accounts,
- providing information (also from outside the enterprise) on the basis on internal controlling.

The research results obtained within this study have been partially in accord, and partially not, with the expectations (Figure 8). It could have been expected that cost planning (budgeting) and cost control (above 95% of the indications), economic-financial analysis as well as preparing task execution reports and accounts (fewer than 78% of the indications per each) were particular areas of reference for controllers' activities. What was rather surprising was the low participation of the strategic planning problems and the problems of strategic control and analysis (it was stressed by fewer than 38% of the enterprises) as well as financial planning and financial control (which were mentioned by approximately 53% of the enterprises). For the completeness of the research results, it should also be noted that providing information as controllers' interaction area was indicated by over 46% of the enterprises under study.

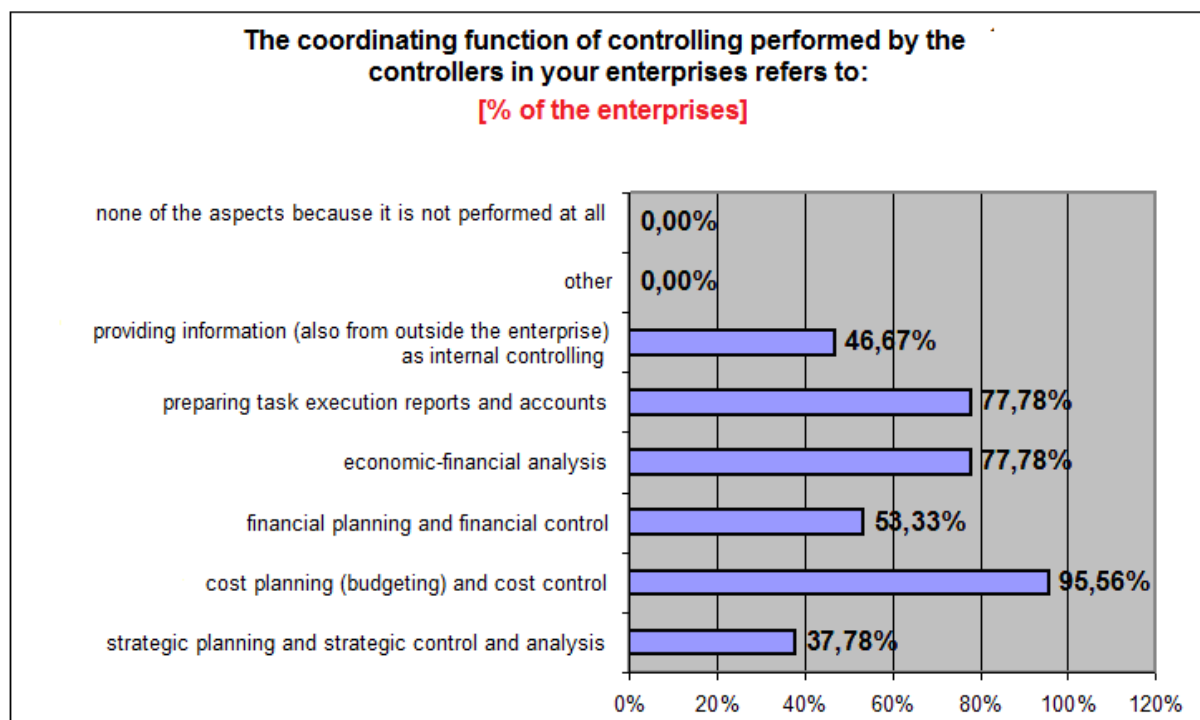


Figure 8. Particular elements of controlling which constitute reference for its coordination function in the enterprises under study. Source: the authors' own study.

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

As regards the results of the discussed research for the enterprises with different controlling use period, they are also diversified (Figure 9). There is, which is obvious, a greater controllers' interest in the problems of strategic planning and financial control in the enterprises with the controlling use period longer than 8 years. They are, however, not so interested in the problems of economic-financial analysis, which is less understandable. For the remaining areas of reference for controllers' actions, the research results are either identical or minimally different.

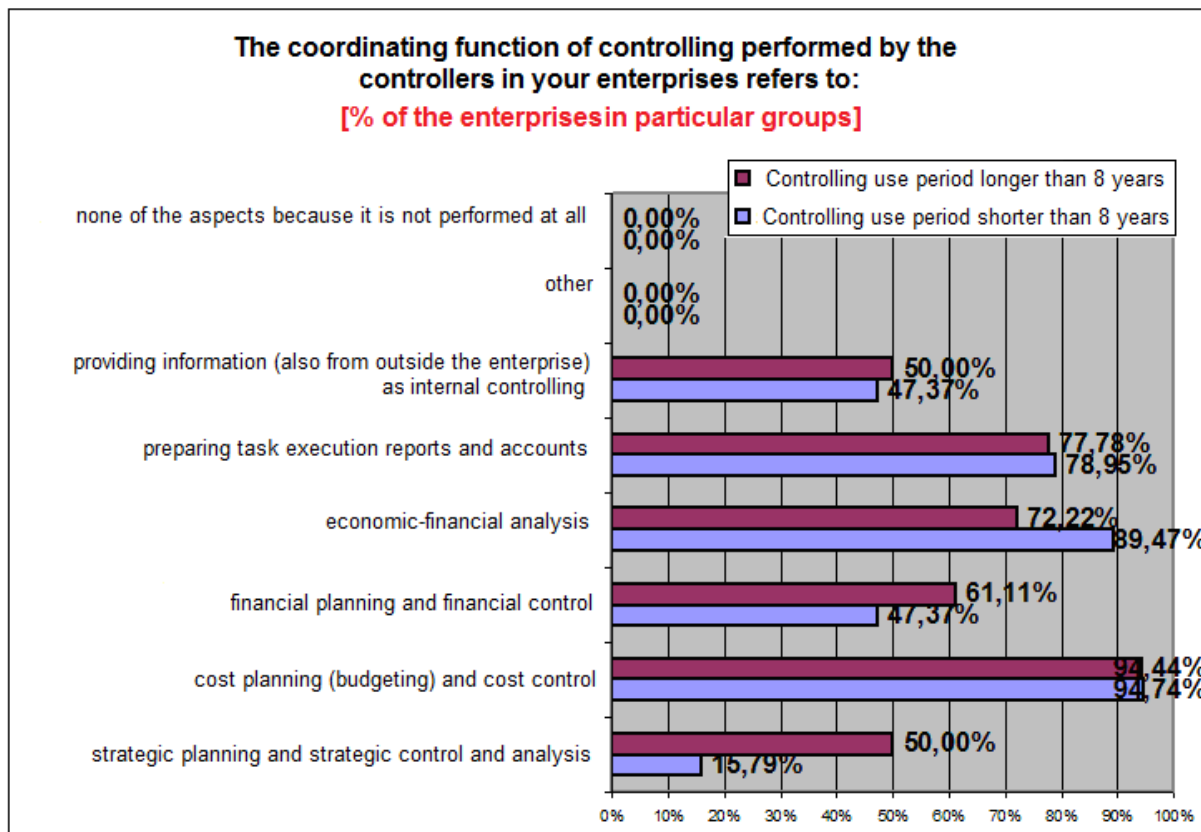


Figure 9. Particular elements of controlling which constitute reference for its coordination function in the enterprises under study, depending on controlling use period. Source: the authors' own study.

The research results of referring the coordination function of controlling to particular elements of controlling depending on the level of environment changeability are in fact quite varied but it is difficult to point to an explicit tendency. What can only be stated, especially in the enterprises functioning in a turbulent environment, is that among the controllers' activities, the problems of strategic planning and strategic control and analysis (all of the enterprises show them) as well as of providing information (mentioned by two thirds of the enterprises) –to a much bigger extent than in the case of the enterprises functioning in other conditions of the environment – are taken into consideration. This result has confirmed the authors' expectations.

#### **4. Controlling types**

Controlling is not a uniform category, even within a single concept of controlling. A number of types of controlling can be distinguished and controlling can be basically categorised according to two criteria: the scope of controlling operation and the character of controlling tasks.

As regards the scope of controlling operation, the following types can be distinguished:

- enterprise's controlling (central, hierarchical, general),
- functional controlling,
- integrated controlling (based on partnership, communicative) [3, pp. 75-76].

In the controlling of an enterprise, the controllers' activities are directed to achieve enterprise's goals as a whole. They, in fact, refer to particular functional areas but what is important is the integration of the tasks belonging to these areas and, as a result, such integration is to lead to achieving wholly understood enterprise's goals. To put it differently, the main subject of controllers' interest in enterprise's controlling should be appropriate adjustment of tasks belonging to different functional areas. Unlike this, functional controlling, with separate functional controllers, concentrates on selected important – considered separately – functional areas. It integrates the tasks belonging to a given functional area from the point of view of the aims set for this area and resulting from the aims of an enterprise as a whole. A successful execution of the tasks belonging to a functional area will lead to achieving preliminarily set aims of an area, agreed upon in inter-area coordination and which are in accordance with the global aims of an enterprise. Finally, integrated controlling is oriented towards multisided relations of an enterprise with the environment. On the one hand, it concerns exerting the enterprise's influence on the elements of the environment which are interested in enterprise's activity and on the other hand, it concerns taking into consideration, in the enterprise's activity, the interests of market participants who – along with the enterprise – constitute a net of interrelations. Pursuant to this idea, all participants of the net of interrelations (partners) should aim together at achieving mutual goals, and by this (or more precisely, thanks to it), their own aims. Partnership understood in this way constitutes the essence of integrated controlling [3, pp. 75-80; 2, pp. 43-51].

Taking into consideration the character of tasks, controlling in an enterprise can be divided into:

- strategic,
- operating.

Strategic controlling is a vital tool supporting the chief executives of an enterprise in making decisions directed towards achieving aims in the field of development. So, it is connected with strategic management and its chief task is to aid particular phases of decision-making process of strategic management, in particular, in terms of strategic planning, strategic control, strategic steering and information of strategic character. It supports preparing and making strategic decisions, implementing such decisions and researching the level of achieving strategic aims defined in this decision-making process [9, p. 68]. Operating controlling, on the other hand, serves to achieve current enterprise's aims which lead, as a result, to achieving strategic aims. It helps operating management so it is helpful during decision-making processes connected with the transformation of strategic plans into the operating ones, the implementation of such plans and the determination of the level of the execution of the tasks which correspond to them, and by

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

this, the level of the achievement of current aims (influencing, of course, the achievement of strategic aims).

It should be stressed that strategic and operating aspect of controlling concerns all types of controlling, from the perspective of its interaction.

As a result of the research, the authors have come to the conclusion that all types of controlling exist in the enterprises (Figure 10). It should have been expected that the dominating type would be enterprise's controlling (which was mentioned by slightly fewer than two thirds of the enterprises) but surprisingly many enterprises (more often than every second one) point to functional controlling. Fewer than 16% of the enterprises mention integrated controlling.

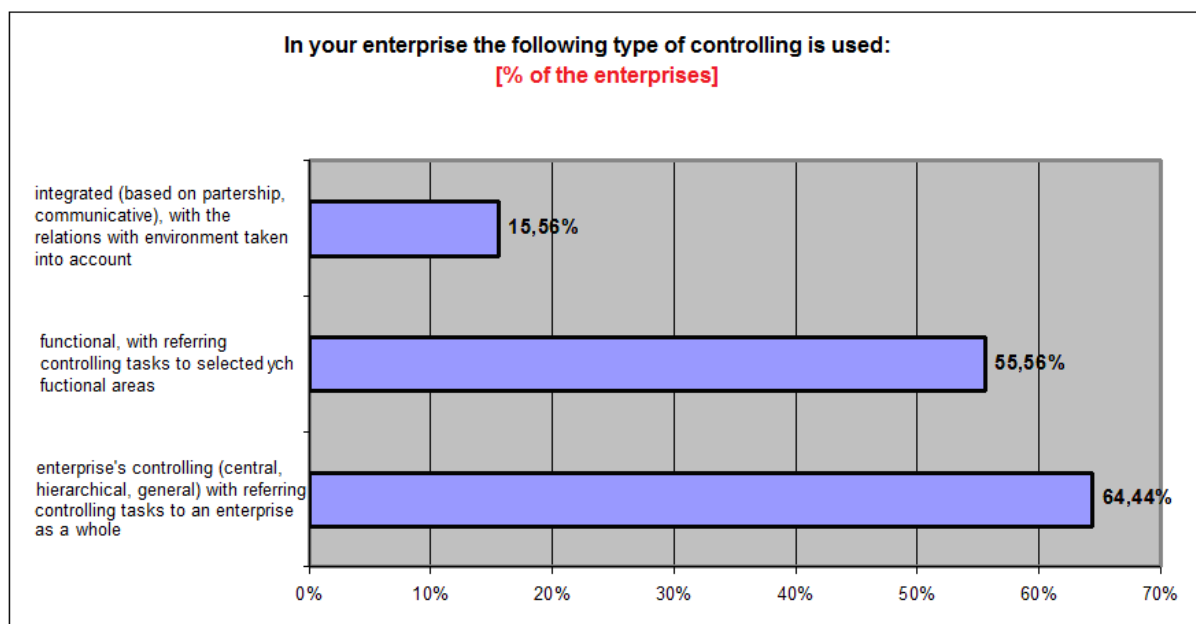


Figure 10. Types of controlling in the enterprises under study. Source: the authors' own study.

As for the presence of controlling (in the enterprises) depending on controlling use period, only an essential difference has been noted in relation to functional controlling (Figure 11). In the enterprises with controlling use period longer than 8 years, as many as two thirds of the enterprises have distinguished this type of controlling whereas in the enterprises with shorter controlling use period, approximately 42% of the enterprises under study. This means that controlling is appreciated in selected, particularly important (from the point of view of the results obtained) functional areas. In the case of enterprise's controlling and integrated controlling, the differences in the research results are not big or almost none.

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

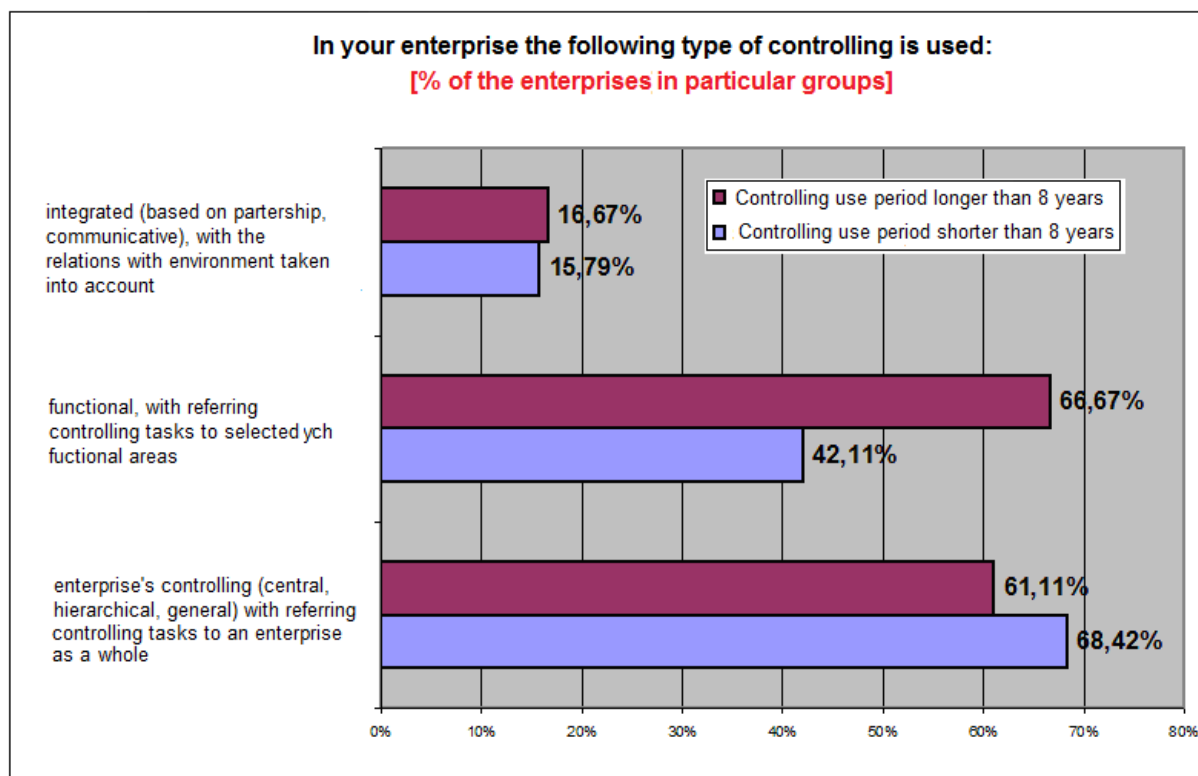


Figure 11. Types of controlling, depending on the controlling use period in the enterprises under study. Source: the authors' own study.

Along with the increase in the level of environment changeability, it is not possible to see any explicit tendency connected with the existence of controlling types. As this level increases, the number of the enterprises which have functional and integrated controlling significantly increases. In the case of functional controlling, this number pertains to two thirds of the enterprises and it refers in a similar way to a turbulent and changeable environment whereas it is about 47-50% for a stable and relatively stable environment. As for integrated controlling, its existence in two thirds of the enterprises under study occurs only for a turbulent environment while for other environment conditions, it occurs much rarer. It is indicated by only approximately 7-16% of the enterprises. It all seems to confirm a big significance, on the one hand, of functional areas in enterprise's activity but – on the other hand – of integrated controlling in the conditions of big changeability of the environment. The participation of the enterprises which have implemented central controlling surprisingly decreases along with the change of the level of environment changeability. This participation for a changeable environment equals 60% but for a turbulent environment only approximately 33% whereas for a stable and relatively stable environment – approximately 68%.

As is known, enterprise's controlling can pertain to all functional areas or only the selected one. However, the latter case is assumed more frequently and it assumes placing controlling in the areas which have a more significant influence on the enterprise's activity results. So, what was interesting was the answer to the question of what functional areas were affected by the implemented controlling, irrespective of whether these were the areas taken into account by enterprise's controlling or by functional controlling.

It turned out that the biggest number of the enterprises – that is – three fourths – have indicated the reference of controlling to the sphere of finance, two thirds – to the sphere of sales, and more often than every second enterprise – to production (Figure 12). Such results could have been expected. Fewer enterprises – approximately 44-47% – indicated

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

the use of controlling in the sphere of supply and investment. The other functional areas covered with controlling are indicated by definitely fewer enterprises because from approximately 10% to approximately 31%.

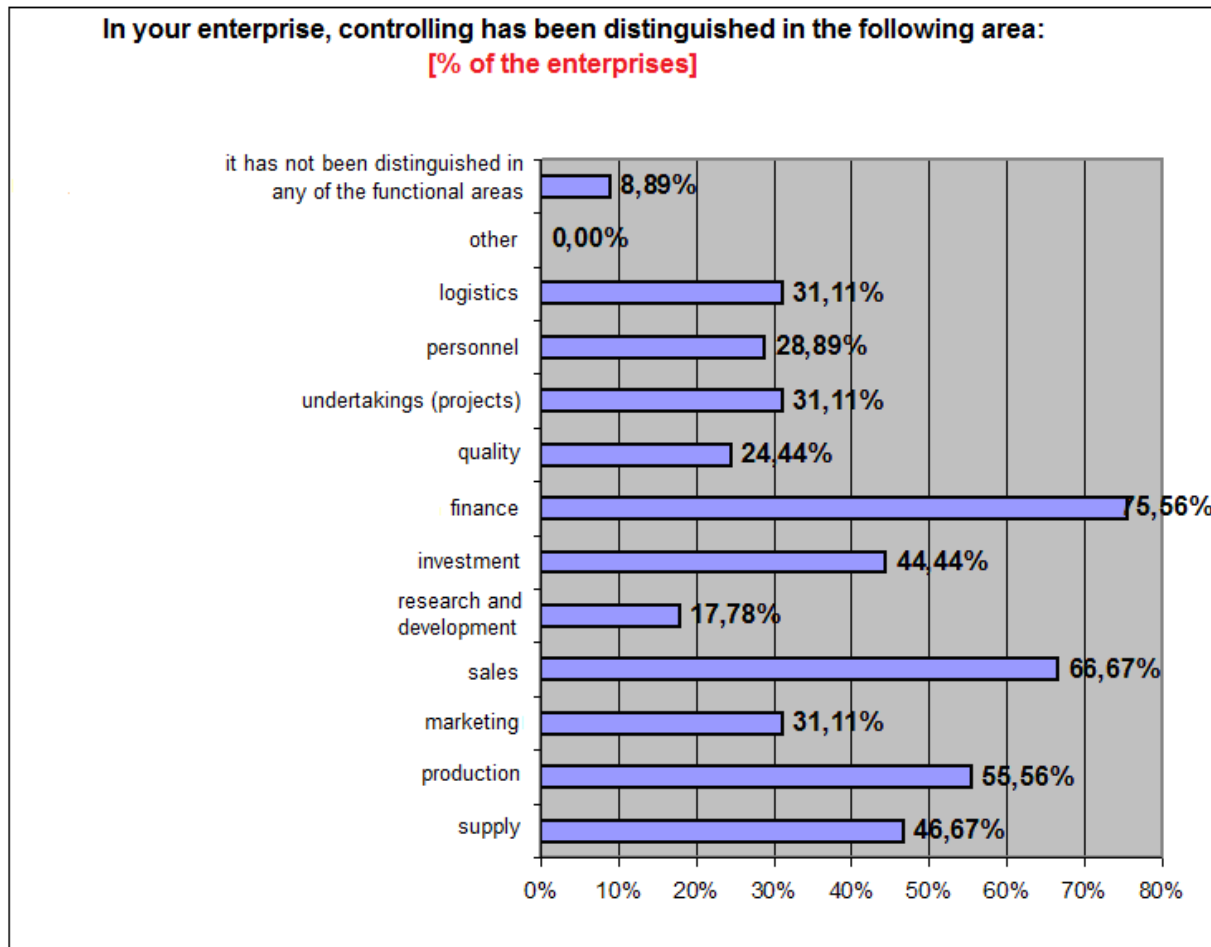


Figure 12. Functional areas covered with controlling in the enterprises under study. Source: the authors' own study.

What is interesting, the increase in controlling use period is connected with the increase of the percentage of enterprises which have implemented controlling in the functional area (Figure 13). It pertains to each functional area none bar but for some areas (research and development, quality, finance, production, investment, undertakings (projects), logistics) this increase is higher and for others (the remaining areas) is smaller.

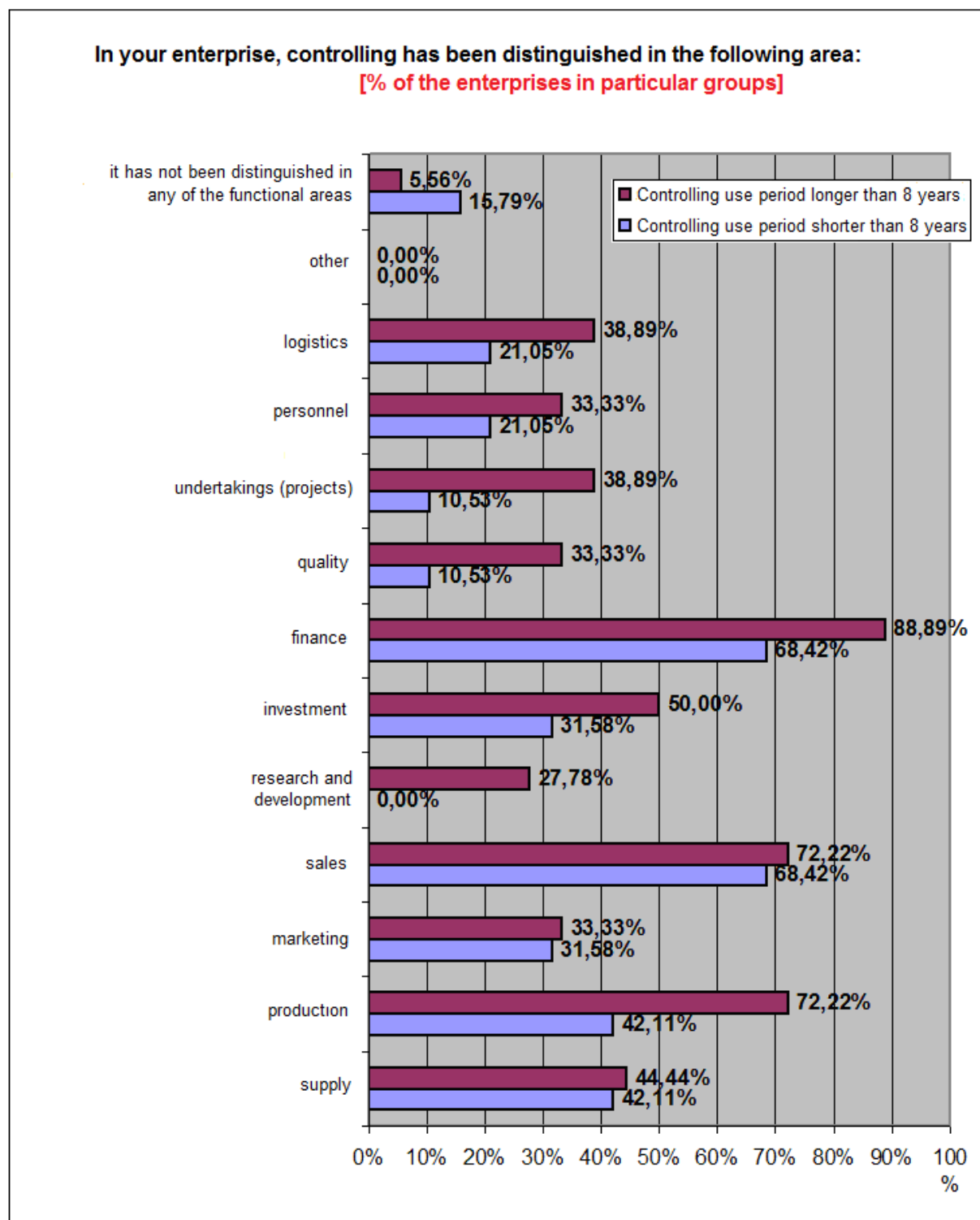


Figure 13. Functional areas covered with controlling, depending on the controlling use period in the enterprises under study. Source: the authors' own study.

A similar situation occurs for the second criterion of research result diversification – environment changeability. Generally speaking, the higher the level of environment changeability is, the bigger percentage of the enterprises having controlling in a given functional area is. It refers at least to the results obtained for the enterprises functioning in a turbulent or changeable environment, as contrasted with the enterprises functioning in a stable or relatively stable environment, which disturbs the general regularity. The difference in the results is quite big and reaches even 30%. The abovementioned principle

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

is not valid only for the sphere of finance. Here, what can be observed is a lower interest in controlling along with the increase of the level of environment changeability, which surprises, and the difference between the extreme results equals approximately 21%.

Generally, in integrated controlling – as the last type of controlling taken into consideration in the research, the relations with all elements of both close and distant environments are taken into account, and these elements are: purchasers, suppliers, employees, potential employees (labour market), opinion-forming organisations, influential organisations, competitors [2, pp. 49-51]. However, of paramount importance are the partnership-based relations with the first three elements.

The above claim confirms the research results. In integrated controlling, partnership-based relations with suppliers and purchasers (in both cases, slightly fewer than a half of the enterprises) and employees (40% of the enterprises) are taken into consideration (Figure 14). Only on a very minimal level do the partnership-based relations refer to the other elements, apart from the competitors, to which approximately 13% of the enterprises point. Every fourth enterprise does not consider any relation with the elements of the environment.

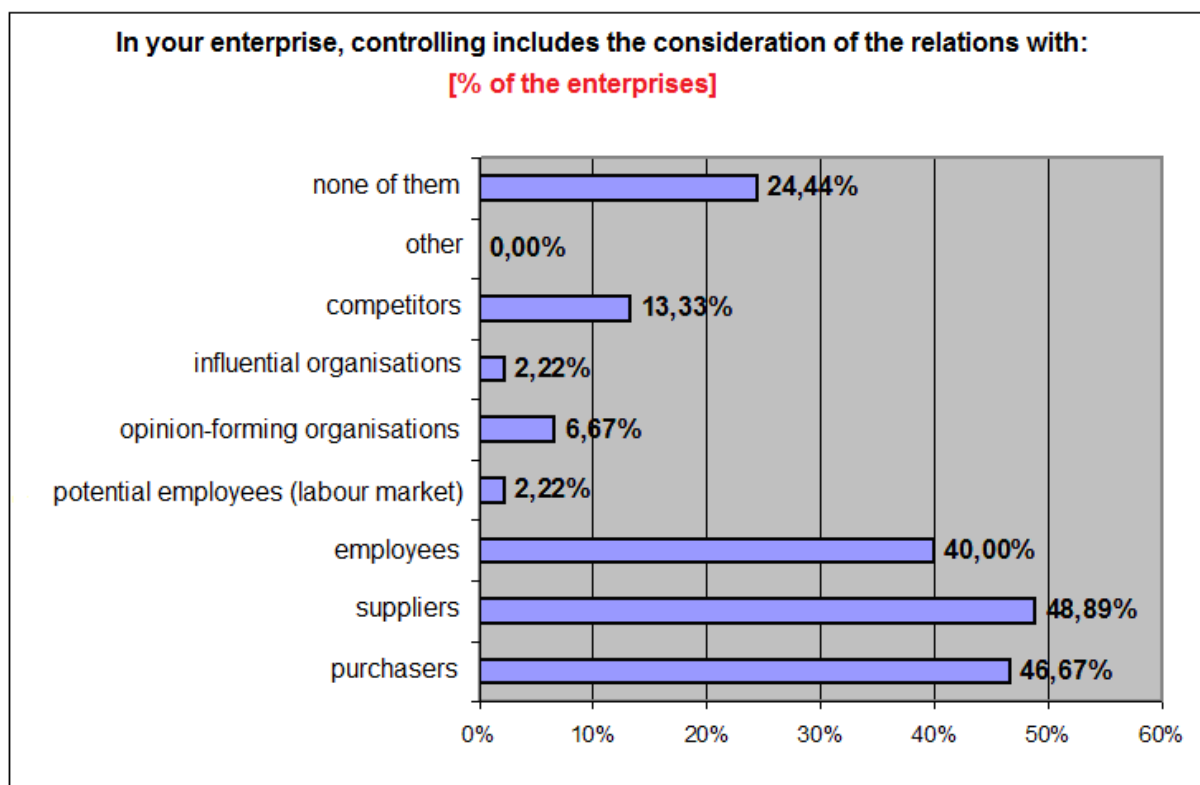


Figure 14. The elements taken into consideration in integrated controlling in the enterprises under study. Source: the authors' own study.

Along with the extension of controlling use period, the participation of the enterprises quoting the relations with the three abovementioned most important elements of the environment increases. This increase fluctuates from approximately 8% (as regards suppliers) to approximately 19% (as regards purchasers and employees). More or less the same percentage of partnership-based relations was noticed for the remaining elements of the environment, with the exception of the relations with competitors, in which there was a decrease by approximately 5%. Approximately 10% fewer do not consider any relations with the elements of the environment.

As regards the level of environment changeability, it might be definitely claimed that there is an increase of the enterprises which take into account the relations with the elements of the environment. It concerns mainly all the relations with purchasers and suppliers and these relations, in the case of a turbulent environment, are mentioned by all the enterprises. Also for the relations with other elements of the environment, this increase is significant and only for the relations with employees the participation of the enterprises is almost on the same level. None of the enterprises has signalled that it does not take into account any of the relations with the environment.

Concluding the discussion of particular aspects of integrated controlling, one should also point to the discrepancy of the results obtained within those aspects with the results of using this type of controlling in general (Figure 10). Fewer than 16% of the enterprises under analysis show that they have taken integrated controlling into account whereas even approximately 49% of the enterprises mention the relations with particular elements of the environment (Figure 14). It should be supposed that in the first case – when answering the question about the scope of integrated controlling use – it has been assumed that there are individually adopted content-based (organisational, functional and instrumental) solutions of this controlling. As the theory holds, the solutions of integrated controlling should concern the organisational culture and value system, chief executives, strategy, organisation structure, workforce, information technology, knowledge, processes [2, p. 51]. If this statement is to be considered true, then the percentage of the enterprises taking into account the relations with the environment (any relations, without adopting any content-based solutions in them) is shown better in Figure 14 than in Figure 10. This percentage equals more than approximately 16%.

There is one more issue to be discussed here. This is the emphasis on strategic and operating controlling in the light of the obtained results. According to the essence of controlling as the concept of management directed more towards the future of an enterprise than towards its past, what should have been expected was the use – to a large extent – of strategic controlling. However, only approximately 31% of the enterprises show this type of controlling whereas as many as 91% of the enterprises show operating controlling (Figure 15). Big enterprises have separately formed – often quite developed – strategic management services and – as should be anticipated – they often take over the tasks of strategic management, including the tasks of strategic controlling, which is outside the frameworks of this management. Along with the extension of the controlling use period, the research results connected with this issue do not undergo any major change. The scope of the use of strategic controlling minimally increases (by approximately 1%) and the scope of the use of operating controlling decreases (by approximately 6%).

## Functional Solutions of Controlling – The results of the research into Lower Silesian Enterprises

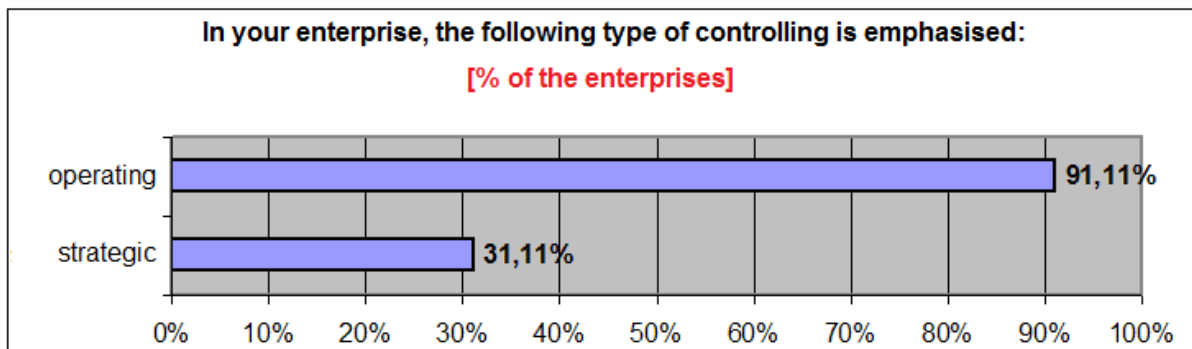


Figure 15. Strategic and operating controlling in the enterprises under study. Source: the authors' own study.

As far as the level of environment changeability is concerned, a similar tendency can be observed. However, here the scope of the use of controlling changes more importantly: in the case of a turbulent environment, it is indicated by as many as two thirds of the enterprises under study. Operating controlling for the intermediate conditions of the environment is indicated by fewer enterprises but for a turbulent environment it is indicated by as many enterprises as those indicating it for a stable environment.

### Conclusions

The reference of the empirical research into the functional solutions of controlling to big enterprises in Lower Silesia allowed to expect the appropriate level of those solutions. In general, it has been confirmed by the obtained results although not totally.

As has been expected, the dominating concepts of controlling were the coordination concept and the concept of information management support. The former was most justifiable for big enterprises where the coordination processes are more complicated. The latter one can be particularly useful for the enterprises functioning in a fast-changing environment. And this is just such enterprises and such conditions of their activity that they authors have had to deal with in the research process. It is also characteristic that the abovementioned concepts of controlling were used jointly in the majority of the enterprises under study.

If it is assumed that the coordination of planning, control, steering and providing information executed by the controllers constitutes only one of the tools of coordination, then mentioning this coordination tool by the enterprises under analysis most often indicates its benefits. However, referring the abovementioned function of controlling to a much larger extent to the performance of the current activities connected with particular elements of controlling than to creating and perfecting the systems of those elements makes its significance less important.

As it has turned out, the coordination function of controlling supports mostly the managers to perform the tasks of planning (budgeting) and cost control, economic-financial analysis as well as preparing reports and accounts. These are important tasks in the process of management. However, if we add that those coordination activities of the controllers refer least of all to planning, strategic control and analysis, so to the developmental tasks of an enterprise which should be a characteristic feature of controlling, then the favourable view of controlling becomes blurred.

In the enterprises under study, it has been shown that all types of controlling are used. Enterprise's controlling is dominating but functional controlling is used only slightly less frequently. Both functional controlling as well as enterprise's controlling pertain to all functional areas taken into consideration by enterprise's activity, however, most of all, to the spheres of finance, sales and production. Integrated controlling is indicated by definitively fewer enterprises but the result, as is believed, should be corrected for its advantage when the results of the research into the consideration of the relations with environment elements into controlling are taken into account. As a result of such research, it has emerged that almost a half of the enterprises take into account the relations with the most important elements of the environment.

What indicates the disadvantage of the functional solutions of controlling adopted in the enterprises under study is the consideration of strategic controlling. Operating controlling dominates.

### References

- [1] Bieńkowska A., Kral Z., Wybrane aspekty informacyjne funkcjonowania kontroingu jakości w przedsiębiorstwie przemysłowym (Chosen informational aspects of functioning the quality controlling in an enterprise), *Problemy jakości*, nr 12 (XXXII), 2000.
- [2] Bieńkowska A., Kral Z., Zabłocka-Kluczka A., Controlling partnerski (Partnership controlling) [in:] *Rachunkowość zarządcza i controlling w warunkach integracji z Unią Europejską*, ed. E. Nowak, *Prace Naukowe Akademii Ekonomicznej we Wrocławiu*, nr 1019, Wrocław 2004.
- [3] Bieńkowska A., Kral Z., Zabłocka-Kluczka A., Dylematy dotyczące controllingu funkcjonalnego (Dilemmas relating to the functional controlling) [w:] *Kierunki rozwoju controllingu a praktyka polskich przedsiębiorstw*, ed. E. Nowak, *Prace Naukowe Akademii Ekonomicznej we Wrocławiu*, nr 987, Wrocław 2003.
- [4] Bieńkowska A., Kral Z., Zabłocka-Kluczka A., Konceptje kontroingu (Conceptions of controlling), *Вісник Житомирського державного технологічного університету. Серія: економічні науки*, nr 2 (28), Житомир 2004.
- [5] Bieńkowska A., Kral Z., Zabłocka-Kluczka A., Ośrodki odpowiedzialności w controllingu (Responsibility centres in controlling), *Ekonomika i Organizacja Przedsiębiorstwa*, 2008, 11, pp. 65-71.
- [6] Dellman K., Eine Systematisierung der Grundlagen des Controlling [in:] *Controlling. Grundlagen Informationssysteme-Anwendungen*, ed. E. Zur, Publishing House. K. Spreemann, Wiesbaden 1992.
- [7] Griffin R.W., Podstawy zarządzania organizacjami (Basis of organizational management), Wydawnictwo Naukowe PWN, Warszawa 1996.
- [8] Nowak E., Zakres controllingu w przedsiębiorstwie (The scope of controlling in an enterprise) [in:] *Controlling w działalności przedsiębiorstwa*, ed. E. Nowak, PWE, Warszawa 2004.
- [9] Nowosielski S., Podstawy controllingu strategicznego w małej i średniej firmie (Basis of strategic controlling in small and medium enterprises) [in:] *Kierunki rozwoju controllingu a praktyka polskich przedsiębiorstw*, red. E. Nowak, *Prace Naukowe Akademii Ekonomicznej we Wrocławiu*, nr 987, Wrocław 2003.

- [10] Sierpińska M., Niedbała B., Controlling operacyjny w przedsiębiorstwie. Centra odpowiedzialności w teorii i praktyce (Operational controlling in an enterprise. Responsibility centres in theory and practice), Wydawnictwo Naukowe PWN, Warszawa 2003.
- [11] Statistical Office in Wrocław,  
[http://www.stat.gov.pl/cps/rde/xbcr/wroc/ASSETS\\_aktualizacja\\_2007.pdf](http://www.stat.gov.pl/cps/rde/xbcr/wroc/ASSETS_aktualizacja_2007.pdf)
- [12] Steinmann H., Schreyögg G., Zarządzanie. Podstawy kierowania przedsiębiorstwem. (Basis of enterprise management) Koncepcje, funkcje, przykłady, Wrocław University of Technology Publishing House, Wrocław 1992.
- [13] Weber J., Wprowadzenie do controllingu (Introduction to controlling), Oficyna Controllingu Profit, Katowice 2001.