FINANCIAL CONTROLLING STATUS AND POTENTIAL IN MEDIUM-SIZED ENTERPRISES OF TUZLA CANTON, BOSNIA AND HERZEGOVINA

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Abstract

The paper focuses on financial controlling in the role of improving business performances of medium-sized enterprises in the Tuzla Canton, Bosnia and Herzegovina, active in manufacturing, trade, transport and storage, construction, etc. All the processes accompanying these activities are significantly faster and do not run in a classical way, which is why the management system nowadays requires that information requested within plan, analysis, and control run simultaneously. It is emphasized that financial controlling is important as it provides the necessary coordination and outgoing information for the management of a medium-sized enterprise. The authors also researched and identified unique common indicators used for determining and establishing financial controlling in medium-sized enterprises in the Tuzla Canton, analyzed the obtained results, and identified mutual dependence of financial controlling and performances of medium-sized enterprises. The conducted research points to the basic conclusion that the function (department) of financial controlling in modern organization of medium-sized enterprise is needed and has a positive effect. The authors therefore confirmed the hypothesis that financial controlling, if properly implemented in practice at the level of medium-sized enterprise, gives efficient results.

Keywords: financial controlling, medium-sized enterprises, performances, Tuzla Canton, Bosnia and Herzegovina

JEL: G30, G39

1. Introduction

> *"How to be an excellent controller? I believe in: 'Open your mind and watch what nobody sees!'"*
> John Araújo, controller at "Soya de Portugal"

Controlling has been one of the main management functions since the division of management in smaller parts. The function of controlling is an interdisciplinary function of an enterprise, with the tasks to plan, supply information, control, and analyze enterprise processes, aimed at the realization of enterprise goals. In practice, the function (department) of controlling found its use in primarily large enterprises (including financial firms such as banks and insurance companies) active internationally. Lately, especially after the global financial crisis 2007-2009, in developed economic environments the function of controlling has become one of the key functions in not only large but also small and medium-sized enterprises (SMEs).

The general aim of this research is to, based on the use of scientific and empirical knowledge, look at the effect of financial controlling on business performances of medium-sized enterprises in the Tuzla Canton, Bosnia and Herzegovina (BiH). The main research hypothesis was postulated, stating that the establishment of financial controlling is a factor for successful business activities of medium-sized enterprises in the Tuzla Canton.

The paper consists of three major parts. While the first part provides a theoretical framework of financial controlling, the second part refers to the previous research in similar fields. The third part of the paper brings the research methodology with a description of the research sample and the questionnaire as well as the

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discussion of the survey results and the analysis of performances of the surveyed medium-sized enterprises.

2. Theoretical framework

The term "controlling" does not imply control as a managerial function but a separate business function dealing with the establishment of efficient processes of planning and control of enterprise business activities (by adopting appropriate procedures, selecting measurable indicators of performances, and identifying and implementing standards) as well as with the coordination of these processes so as to provide support to enterprise management in setting and achieving business goals (Polić, Kozarević & Džafić 2016, pp. 21-35). Controlling, i.e., its business function, is "the right hand" of enterprise management as it directly affects its two functions – planning and control. The most frequent mistake with using the term "controlling" is to understand it as a synonym of "control". Control is a process by which realized performances are measured, compared to the planned ones, while controlling is responsible for performances (results or effects) to be properly selected and for control to go ahead by planned procedures that are considered the precondition for its successful realization and high-quality judgement.

While in the USA, in principle, there is no distinction between business and financial controlling, for many enterprises in Western Europe this is the case. In brief, business controller is commercially and market oriented and focused on enterprise income statement. Financial controller works closely with the financial function and is focused on enterprise balance sheet. In addition, while the US perception of controlling is basically focused on enterprise accounting, the European, accepted in BiH, includes the co-modelling of goals, planning, control with analysis, and informing and reporting. Apart from the accounting sources, the European concept of financial controlling also uses information from the sources outside the enterprise.

The controlling function often plays an advisory role in the implementation of operational and strategic goals and plans, and provides inputs for creating measures to manage the discrepancies between planned and achieved activities (Kozarević, Delić & Alić 2019, pp. 92-100). Consequently, two types of controlling are most frequently observed in practice – strategic and operating. While strategic controlling is long-term, focusing on enterprise long-term goals, operating controlling is short-term, focusing on enterprise operating goals. Also, strategic controlling is typically implemented in large enterprises with international business activities. While the most frequently used instruments of operating controlling are (Pietsch 2012, pp. 5-32):

- ABC analysis,
- XYZ analysis,
- Break-even point,
- System of financial indicators,
- Budgeting, etc.,

The instruments mostly used in the purpose of strategic controlling are as follows (Pietsch 2012, pp. 35-85):

- Portfolio analysis,
- Cost-benefit analysis,
- SWOT analysis,
- Balanced Scorecard (BSC), etc.

Financial controlling in medium-sized enterprise is nowadays a multi-significant function as successful business activities involve working with more clients, with an increasing number of competitors, tricks and tactics present in managing business. Financial controlling is not just "measuring the past", measuring what happened but also the estimate of what is going to happen. Although numerous authors differently perceived the dimensions of financial controlling, most of them stated that financial controlling is the function in an enterprise that supports management and its tasks are generally the following: coordination, planning, guidance, control, and information. Strategic goals that define the leading role of management in medium-sized enterprises refer to survival, growth, and development in a longer time period. The instruments available for this purpose are BSC and SWOT analysis as the cornerstones. For example, BSC presented in an enterprise as a communication tool, system of measures and system of strategic

management, is able to measure enterprise success through four basic balanced perspectives – financial, buyers' perspective, perspective of internal processes, and perspective of learning and development. This process is open and can be complemented by other perspectives that lead to the successful operations of enterprise such as perspective of competition, perspective of sustainability, etc.

3. Literature review

Today, it is generally accepted that controlling contributes to enhancing the competitiveness of organizations, starting with businesses, higher education institutions, banks, and all the way to insurers. Acknowledging its undeniable importance in contemporary business practices and its impact, numerous theoretical and empirical studies contribute to shedding light on the characteristics, roles, and functions of controlling.

The very definition of the function of controlling explains the purpose of its establishment and integration into enterprise structure, which is precisely the support to enterprise management in achieving business goals. However, how the controlling function would be organized and implemented depends on various factors.

The development of controlling in today's sense can be attributed to the industrialization of the USA in the second half of the 19th century (Osmanagić-Bedenik 2007, p. 30). The first industrial enterprise, introduced to the controller, was the "General Electric Company" in 1892. The oldest controlling instrument was developed into the chemical enterprise holding "DuPont" in 1919. Controlling obtained similar significance in other large systems of that time – "General Motors", "Sears" or "Standard Oil", which also faced greater need for integration and coordination because of diversification of business operations (Perović & Vujičić 2015, pp. 165-166).

In Europe, controlling appears for the first time in the 1950s and 1960s, developing initially with the entry of American enterprises into the markets of West European countries markets (Germany, France, Italy, Switzerland, and Austria) and the opening of a branch network

(Perović & Vujičić 2015, p. 167). The development of controlling in Austria and Germany, for example, started in the 1970s and is very similar in these two countries. In fact, 85% of the structure of Austrian enterprises is made of SMEs with up to ten employees while only 0.4% of Austrian SMEs hire over 1,000 employees. In Austria, controlling is currently studied as a discipline at the universities in Vienna, Innsbruck, and Graz. Furthermore, controlling established in France in the 1960s and as early as in 1965 some 50% of the enterprises had controlling departments. Its perception, in terms of management control, gradually developed into management and guidance. Eventually, the focus of controlling in France was transferred into the field of short-term and medium-term planning (Kovačić 2016, pp.13-15).

The evolution of controlling since the 1980s can be summarized through the following six concepts (Roman, Roman & Meier 2014, p. 49; Rogošić & Budimilić 2016, p. 80):

- Controlling as an administrative record tracking (the 1980s),
- Controlling as an administrative information system (end of the 1980s),
- Controlling as planning and control (beginning of the 1990s),
- Controlling as coordination activity (the 1990s),
- Controlling as business administration (end of the 1990s), and
- Controlling as a system for coordinating decision-making process (the 2000s).

Although the development of controlling was initially mainly related to large enterprises, the intensification of competition and the challenges generated by this process initiated the introduction of controlling in medium-sized and small enterprises, and other types of organizations (banks, insurance companies, public sector institutions, etc.). As a rule, in most organizations today, controlling exists as an organizational unit, while in some organizations the controller is responsible for this function (Osmanagić-Bedenik 2004, p. 43).

Scientific research on controlling has long remained on the theoretical and conceptual plane. For example, the proportion of academic articles on controlling that contained the

results of empirical research in German scientific journals was only about 20% by the mid-1990s (Messner et al. 2008; Vuko & Ojvan 2013, pp. 44-52). Thereby, empirical research has mainly focused on the analysis of the scope of control and the organizational treatment of controlling function (Becker & Messner 2005, pp. 417-427; Wagenhofer 2006, pp. 1-19; Becker, Horstmann & Remington 2011, p. 1757; Vuko & Ojvan 2013, pp. 44-52).

In the context of the significance of controlling for enterprise financial soundness, it is worth mentioning that 79% of the surveyed insolvency administrators at the Center for Insolvency and Reorganization at the University of Mannheim identified the lack of controlling in enterprises as the most frequent reason of inefficient business activities and insolvency. Other important factors include the lack of account receivables management, insufficient transparency and communication, problems with human resources, and uncontrolled growth of the enterprise (Baden 2006, p. 3-33). For example, collection of account receivables is extremely important for every enterprise and it is one of the most sensitive aspects of business, especially in the time of market instability and illiquidity. Due to debtor's late payment or lack of payment, enterprises, as creditors, face difficulties in business activities. This brings lower business results and makes enterprises unable to pay their obligations in time. Every enterprise faces the lack of payment discipline and the best prevention is to regularly check the solvency and reputation of its business partners and reject doing business with those that experience difficulties in payment. A decrease in costs of collection of account receivables is made by the establishment of controlling departments (Kozarević, Delić & Omerović 2019, pp. 93-103).

The results of the empirical research conducted by Kozarević and Vehabović (2020, pp. 21-35), who focused on SMEs operating on the territory of the Federal State of Bavaria, showed that 92% of the surveyed enterprises had the function of controlling integrated in their organizational structures, while 88% of these enterprises believed that the application of financial controlling had a significant effect on enterprise profitability. The means of

organization and implementation of controlling was diverse [for example, in some enterprises it was (sub)function within enterprise accounting and finance department, in others within the management, etc.]. When it comes to the types and instruments of controlling, most frequently applied were operating financial controlling and financial indicators, respectively.

Strategic controlling in SMEs is primarily conditioned by enterprise size and the influence of the family that is most frequently the owner of the enterprise. In such enterprises, the tasks of strategic financial controlling are often taken by external advisers and experts in the field of controlling. Regardless of the way of organizing and executing the tasks of strategic controlling, its implementation has positive effects on enterprise financial performances, on enterprise validation in terms of its sale and purchase as well as on the reduction of insolvency risk. In addition, strategic controlling is very significant for enterprise flexibility regarding changeable business environment and for the easier transfer of knowledge within the enterprise (Hiebl 2017, pp. 1-20).

4. Empirical research

4.1. Methodology

The main goal of this paper was to empirically examine the position, possibilities, and perspectives of financial controlling in medium-sized enterprises of the Tuzla Canton and to obtain the relevant information on its organized support to management in running a medium-sized enterprise. Research methodology included the use of a questionnaire as a method for data collection.

The questionnaire was adopted from (Osmanagić-Bedenik & Lalovac 2007, pp. 83-99) and (Kozarević, Delić & Omerović 2019, pp. 93-103). It was created so as to cover the following four segments:
1. Determinants of the enterprise and its business environment (twelve questions with regard to the respondent's position in the organizational hierarchy, the type of

the organization, the branch of actitivity, etc.);

2. Institutional organization of controlling in the enterprise (nine questions related to the basic knowledge of controlling, the existence of the controlling function in the enterprise, the number and the educational qualification of the engaged employees/controllers, etc.);

3. Relationship between controlling and strategic management (seven extensive questions, which refer to strategic decision making, the enterprise perception as customer as well as supplier, etc.), and

4. Financial indicators (nine questions connected to annual income, costs, liquidity, return on assets, return on equity, etc., from 2015 to 2017).

The questionnaire included close-ended and semi-open questions. Due to the specificity and complexity of the questionnaire, the subjects were enterprise directors or owners and the questionnaire was delivered by e-mail or in person, depending on their preferences.

The main research set included 337 medium-sized enterprises active in the Tuzla Canton at the end of 2018. The Tuzla Canton is the most populated canton in BiH Federation and has the highest number of enterprises that fit the profile of SMEs as defined by the Law on Accounting and Auditing of BiH Federation (Official Gazette of BiH Federation, 83/09, article 4). The law categorizes enterprises (i.e., legal entities) according to the number of employees, the amount of assets, and the total annual income. In this respect, medium-sized legal entities are those that on the day their financial reports are made fulfill minimum two out of the following three conditions:

• Average number of employees over the year is 50-250,
• Average value of business assets at the end of fiscal year is BAM 1-4 million, and/or
• Total annual income is BAM 2-8 million.

Medium-sized legal entities also include those whose values are above the higher value of one of the conditions. The research did not include public enterprises as due to the political "involvement" in their management structure they would not be able to provide a realistic

account of financial controlling and its link to enterprise success.

The questionnaire included the elements that identify the measures and assumptions of the introducing of financial controlling, which by the theoretical research were proved to be functionally related to enterprise business success. The subjects' answers were supposed to provide the insight into the attitudes of the enterprises towards controlling, the relationship between the management and controlling, and enterprises success. The primary research was conducted over the first semester of 2019 on a random selected sample that included 100 enterprises, whereby the response rate was 36%. These are the population units distributed by different municipalities and cities/towns in the Tuzla Canton. Taking into consideration the response rate and filling the questionnaire by the survey respondents, below in this article are given the results of the descriptive statistics as well as the comparative analysis, along with an accompanying interpretation and discussion.

4.2. Results and discussion

Medium-sized enterprises with the seat in the Tuzla Canton that were included in the research are organized as limited liability companies whose main activities are manufacture, services, construction, agriculture, and mining. Only one enterprise is a part of a concern and only that enterprise could take over the policies and procedures already existing in the parent enterprise.

Some 97% of the sample enterprises are those that independently "made their way" from small to medium-sized enterprises, developing during their business activities and solving problems and handling the changes that a small enterprise undergoes during its growth and "transformation" into a medium-sized enterprise.

The medium-sized enterprises that developed from the small ones eventually developed the ability to swiftly adapt to the dynamic market and the changes required. The enterprise that was given the know-how from its parent enterprise situated abroad had a simpler

access to markets and already had well-developed schemes and matrices of business.

The sample mainly included the enterprises with 10-49 employees, as many as 69.44% (or 25 enterprises in absolute terms). There were 22.22% enterprises (or eight enterprises) with 50-100 employees. One enterprise had up to 10 employees and two enterprises were with 101-250 employees.

When we compare the number of employees with enterprise age, there is an evident link between the years of doing business and the number of employees in an enterprise. It is evident that medium-sized enterprises need to have existed over 10-30 years so as to reach the level at which they can independently deal with market challenges and everyday changes. Some 69.44% of the surveyed enterprises are active for over 10 years and less than 30 years.

A relatively small percentage of the surveyed enterprises are active for over 30 years and are still medium-sized legal entities (8.34% or only three enterprises). It was expected that the enterprise which is a part of a concern is active for less than five years but already a medium-sized enterprise as we can assume it to have a developed business system, which for other sample enterprises is a process they need to understand and develop on their own.

Regarding the branch of activity, the sample included 12 enterprises in manufacturing, 11 enterprises in trade, four in transport and storage, two in construction, one in agriculture, one in mining, and five in other service activities. Therefore, the largest number of the surveyed enterprises were in manufacture and then trade. It is clear that manufacture as an activity is the most demanding as raw materials are used to create the finished product that needs to "find its place" in a competitive market. It can be said that manufacturing enterprises have the most demanding task – to manufacture a high-quality product, cost-effective for owners but also price-acceptable and reliable for buyers, and successfully market the product in the period of globalization and digitalization.

Based on the analysis of the data gathered from the questionnaire, it can be said that the majority of the medium-sized enterprises in the sample oriented equally to both domestic and foreign markets. Specifically, 58.33% of the subjects stated they were oriented to both markets, 30.56% to domestic market only, and 11.11% to foreign market only. Hence, over time, medium-sized enterprises positioned in both domestic and foreign markets. They used their competitive advantages so as to win the market/s, aiming at realizing their vision and mission and providing business continuity. The dynamism of business activities and true adaptation to different markets required that medium-sized enterprises adapt fast so as to be efficient and consequently keep business continuity.

In order to obtain more detailed information regarding the preparedness of medium-sized enterprises for the market, complexity of business environment and the frequency of market changes, the questionnaire also included the question that defines the complexity of business environment. Some 52.78% of the surveyed enterprises identified the competitiveness in their market as extremely evident, 44.44% of them characterized their market as medium competitive, while 2.78% of the enterprises characterized the competitiveness in their market as low. As it is known, high competitiveness encourages enterprises to innovativeness, increased quality, higher flexibility, stronger reliability, and long-term cooperation.

Establishing the link between the characteristics of the sample enterprises and the market, as many as 86.11% of the subjects stated that their buyers perceive them as reliable suppliers. We can state with certainty that a whole set of activities undertaken by the surveyed enterprises creates their entrepreneurial specificity, which keeps and motivates them to be competitive in their market. All of them had to develop their uniqueness and strengthen their reliability and business cooperation among their buyers.

A small percentage of the surveyed enterprises characterized themselves as "partner" (8.33%) or "key supplier" (only 2.78%), as due to the specificity of the state of BiH, primarily the political instability, foreign buyers perceive

them with caution and the enterprises from this country are to be treated with the increased risk for much longer, which is something only the years of cooperation can change. However, all the surveyed enterprises showed by their age that they managed not to be treated as standard suppliers by their buyers. The changes caused by globalization and digitalization impose new challenges they have to face, fostering innovativeness and creativity in solving newly emerged situations in business. Controllers as innovators would be an ideal solution for such situations!

Market changes dictate certain adaptations of enterprises to the ongoing trends, and enterprises manage, with more or less success, to respond to such changes. Every enterprise was questioned regarding the frequency of the changes in its business environment. Due to globalization and the age of new technology, we expected that the majority of the enterprises would characterize market changes as strong and that their adjustments would be significant. However, only 8.33% of the enterprises stated that they make business in the environment with a very high frequency of changes. A large portion of the enterprises, as many as 75% stated that the frequency of environment changes is medium. Also, the percentage of the surveyed enterprises active with a low level of environment change frequency is relatively high, 16.67%, compared to the expectations prior to the dissemination of the questionnaire.

A significant instrument of analysis of enterprise creditworthiness are financial indicators that demonstrate its strength, stability, and success. They are an important factor in some cases and the most important in other. Ultimately, without solid financial indicators, an enterprise cannot follow its vision and implement its strategy. Earlier in this paper, enterprise segmentation was mentioned, with two out of three factors being financial elements that define enterprise segmentation to small, medium-sized or large. The remaining part of the paper focuses on the perception of financial indicators and parameters of the surveyed enterprises, their analysis, performance limit, and enterprise classification based on these indicators and

parameters. Also, the analysis is aimed at specifying the link to financial controlling.

An individual indicator can be calculated by means of any two values. Concerning a large volume of data in enterprise financial reports, a large number of meaningful financial indicators may be calculated. In addition, there is not a standardized list of financial indicators or standardized rules for their calculation. However, the most significant financial indicators are in principle calculated in the same way. The additional problem is the comparability of calculated financial indicators among various enterprises in the world due to different economy sectors, different enterprises and sectors in various countries, all coming from the input data that serve as the basis for the calculation. Almost all the data used for the calculation of financial indicators are derived from accounting frameworks that are in principle adjusted due to international accounting standards. Even within these standards, enterprises may choose among various accounting policies to affect their financial results and the level of individual entries in balance sheets. In addition, one always should assume the objectivity of financial reports due to the possibility for frauds and unintentional faulty statements. Due to all these reasons, financial indicators can partially create the image of enterprise creditworthiness but without a detailed deep analysis of every individual enterprise, its real status cannot be established with 100% certainty. When it comes to medium-sized enterprises in the Tuzla Canton, they already have developed systems of accounting and financial reporting and they are obliged to audit financial reports. Hence, we assume that medium-sized enterprises in the Tuzla Canton have (or should have) relatively objective financial reports.

Analyzing the turnover realized by the surveyed enterprises in the last observed year (i.e., 2017), it can be seen that enterprise turnover was in the range of BAM 2-8 million. The turnover of 77.78% of the surveyed enterprises was between BAM 2 and 5 million. The majority of the enterprises had the turnover of BAM 2-3 million and BAM 4-5 million, 27.78% each. Only 11.11% of the enterprises had the turnover of BAM 5-6

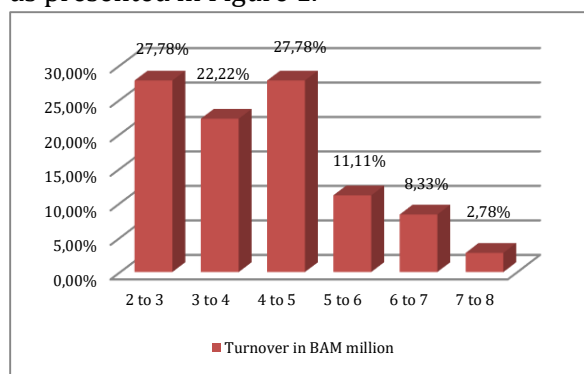million and the one higher that BAM 6 million, as presented in Figure 1.

Figure 1. *Annual turnover of sample enterprises*
Source: Authors' research

In order to see if an enterprise is successful, we chose several financial indicators to assist in establishing the link between performances and controlling.

The increase in income, cost, liquidity, return on equity (ROE), and return on assets (ROA) were considered.

The increase in income was observed over the last three years (2015-2017) and the aim was to isolate the enterprises with constant increase in income over these years.

This indicator shows that an enterprise is competent enough to secure growth that would allow for further expansion and stability or business continuity. Cost was observed as follows:
• Proportional to income,
• At the same level or
• With the decreasing trend.

Cost management is also one of the segments that enables management to keep current liquidity, provide business continuity, prevent sudden "attacks" on liquidity, and ease business planning.

Liquidity ratio is an indicator that shows the ability of the enterprise to pay off short-term debts from their current receivables.

ROE is an indicator of return on the invested capital. Every investor wishes to have the highest ROE as possible. ROA is also an indicator that supports ROE and shows how profitable an enterprise is relative to its total assets.

In order to analyze and define the enterprises that are profitable and successful, we used the official data basis of "LRC" Ltd. Sarajevo and made the analysis of enterprise performances per activities in the sample.

Table 1 shows financial parameters to be analyzed for enterprise performances in the sample and expand by the increase in income and cost analysis.

Table 1. *Financial indicators per branches of activity in BiH, top 10 enterprises in the industry in BiH and the industry in the Tuzla Canton*

	Industry in the Tuzla Canton		Top 10 enterprises in the industry in BiH		Industry at the level of BiH	
	2016	2017	2016	2017	2016	2017
Agriculture, forestry and fishery						
Liquidity indicator	0.7	0.6	1.5	1.76	0.8	0.9
Net margin	-0.9%	-4.0%	5.9%	3.5%	2.0%	1.2%
Average net income (BAM)	-522	-26,292	392,211	248,235	9,744	6,188
ROE	-1.3%	-6.8%	14.7%	5.8%	1.3%	0.9%
ROA	-0.2%	-1.1%	4.2%	3.2%	0.7%	0.4%
Mining and quarrying						
Liquidity indicator	0.9	0.9	2.4	1.8	1.1	0.9
Net margin	12.6%	14.9%	13.0%	8.9%	-60.0%	-3.2%
Average net income (BAM)	150,656	164,499	662,836	404,977	-3,456	-18,067
ROE	12.9%	13.4%	7.8%	6.5%	-0.2%	-1.2%
ROA	7.3%	7.6%	4.9%	3.6%	-0.1%	-0.7%
Processing industry						
Liquidity indicator	0.6	1.0	1.2	1.7	0.8	0.9
Net margin	3.0%	3.2%	4.7%	6.7%	2.0%	2.0%
Average net income (BAM)	27,128	28,070	367,748	525,292	15,334	15,582
ROE	4.8%	5.0%	8.8%	13.2%	2.5%	2.5%
ROA	1.7%	2.1%	3.9%	8.5%	1.0%	1.0%
Production and supply of electric power						
Liquidity indicator	0.5	0.6	0.8	0.7	0.5	0.6
Net margin	9.7%	10.0%	-1.5%	-0.4%	-6.0%	-7.0%
Average net income (BAM)	25,454	33,463	-64,436	-20,239	-21,225	-26,134
ROE	7.5%	22.9%	-1.4%	-0.6%	-3%	-3.5%
ROA	2.0%	2.6%	-0.3%	-0.1%	-0.8%	-0.9%
Construction						
Liquidity indicator	1.0	1.2	1.4	1.3	1.1	1.1
Net margin	9.6%	9.1%	9.1%	7.8%	5.4%	8.6%
Average net income (BAM)	62,424	56,192	706,770	589,931	37,580	58,132
ROE	14.2%	13.1%	21.5%	11.7%	7.0%	10.9%
ROA	5.2%	4.6%	9.7%	5.7%	2.5%	4.0%
Wholesale and retail sale						
Liquidity indicator	1.25	1.31	0.77	1.21	1.18	1.17
Net margin	4.60%	4.60%	3.50%	7.20%	4.30%	4.50%
Average net income (BAM)	31,963	32,378	278,677	570,550	33,229	35,095
ROE	11.50%	11.00%	18.10%	37.30%	9.40%	9.80%
ROA	5.10%	5.00%	5.10%	11.80%	3.70%	3.90%
Transport and storage						
Liquidity indicator	1.1	1.2	1.4	1.5	1.0	1.1
Net margin	7.1%	5.2%	2.8%	4.2%	5.9%	6.5%
Average net income (BAM)	61,019	42,320	203,924	309,772	41,313	46,194
ROE	14.7%	11.2%	6,8%	11.6%	10.6%	11.7%
ROA	7.2%	5.6%	3.3%	6.4%	5.1%	5.6%

Source: Authors' research

The analysis of the indicators in Table 1 for top 10 enterprises per analyzed branches of activity at the level of BiH allowed for the establishment of minimum and maximum values of individual indicators, as evident in Table 2.

Table 2. *Minimum and maximum values of indicators for top 10 enterprises in the industry at the level of BiH*

	2016	2017
Liquidity indicators		
Min.	0.8	0.7
Max.	2.4	1.8
Net margin		
Min.	2.8%	3.5%
Max.	13.0%	8.9%
Average net income (BAM)		
Min.	203,924	248,235
Max.	706,770	589,931
ROE		
Min.	6.8%	5.8%
Max.	21.5%	37.3%
ROA		
Min.	3.3%	3.2%
Max.	9.7%	11.8%

Source: Authors' research

Based on these parameters, we created the criteria for the classification of enterprise performances as follows:

- Increase in income during all three years;
- Cost - proportional to income growth, decreases over years, the same in three years;
- Current liquidity coefficient equal to or above 1.1 or increases from year to year with the average above 1.1;
- Net margin over or equal to 9.0% during all three years;
- ROE equal or above 13.0% during all three years or the average value during three years;
- ROA equal or above 10.0% during all three years or the average value during three years.

Based on the above-described criteria, the analysis was made of the sample enterprise performances. Actually, each and every of the above selected (or observed) indicators were analyzed for every enterprise, followed by the overview per indicators so as to see how many enterprises met the criteria (or conditions) and how many did not (see Table 3).

Table 3. *Financial indicators of sample enterprises*

Observed financial indicators	Yes	%	No	%
Income growth	18	50.0	18	50.0
Cost	21	58.3	15	41.7
Current liquidity coefficient	20	55.6	16	44.4
Profit margin	8	22.2	28	77.8
ROE	23	63.9	13	36.1
ROA	13	36.1	23	63.9

Source: Authors' research

If the selected financial indicators of the sample enterprises are observed, one can notice performance variations. For example, 50% of the enterprises registered the growth of income from year to year, during all three years. The enterprises that did not register a constant growth during all three years could not be categorized as enterprises with income growth. Cost was observed in terms of the following facts: was its growth proportional to income, was it reduced or the same over years. After the analysis, it can be said that the observed enterprises efficiently manage their cost, with as many as 58.3% of them meeting one of the three mentioned criteria, which would imply that they have some cost management strategy. The analysis of the medium-sized enterprises in the sample and their data available for the past several years shows that apart from the ability to generate income, another very important factor that provides long-term survival and prompt reactions to market changes is quality cost management. By the analysis of current liquidity coefficient, it was established that a significant percentage of the surveyed enterprises had the current liquidity better than the set parameter, which is significantly better relative to the appropriate industry parameter at the level of BiH. Hence, it can be concluded that the parameter of liquidity was realized the same way as for the best enterprises in the selected industries. Some 55.6% of the sample enterprises registered the current liquidity coefficient above 1.1, in accordance to the set criterium. A significant number of the medium-sized enterprises in the sample was able to pay off all their current debts in a short period of time. Observing the profit margin of the enterprises, one can see

that a small number of enterprises met the criterium set for a successful enterprise by this indicator. It was noted that only 8% of the enterprises had a higher or constant margin of 9.0% during all three years. This observation raises several questions and dilemmas but it is evident that profit margin varies in a larger number of the sampled enterprises and shows inconsistency over years.   ROE is an indicator that shows return on invested capital. As many as 63.9% of the surveyed enterprises registered a significant ROE of 13%, during all three years. If observed by this indicator, the sample enterprises would definitely be among the best enterprises in BiH, although this indicator may show that the observed enterprises are not sufficiently capitalized, meaning that the level of capital adequacy might be higher. Enterprises are required by the law to maintain capital adequacy, which is why this issue might be the subject to a separate analysis.   ROA for the sample was below the set criterion. The majority of the sampled enterprises, as many as 63.9%, did not meet the condition set for this indicator. A smaller segment of the sample, 36.1% of the enterprises, satisfied the criteria with ROA of 10% or higher during all three years or of the average value over 10% during three years. The data indicate that the enterprises need to have stronger assets in order to generate the target return. A more high-quality approach or asset management in order to maximize ROA requires a series of policies and procedures which would guide business activities and future decisions at any time.   In summary, observing the average values of the entire sample by the set parameters of the selected financial indicators, we can conclude that the percentage of the enterprises with the satisfactory indicators is 58.3% while 41.7% of the enterprises did not meet the adopted criteria for defining a successful enterprise. In addition, the questionnaire was designed so as to provide a more detailed insight into enterprise business activity, complexity of business environment, establishment of financial controlling, and financial indicators. Analyzing the replies, we came to the conclusion that the majority of the sample enterprises stated that they have controlling. In other words, 63.9% of the enterprises replied that they have set up reports, procedures, policies, etc. (Figure 2). Consequently, we

analyzed the responses regarding controlling and previously defined financial indicators that demonstrate enterprise performances.
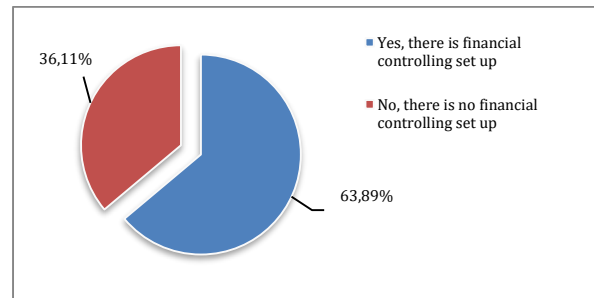

Figure 2. *Presence of financial controlling in the sample enterprises*
Source: Authors' research

The analysis showed that the enterprises mainly confirmed that they have the established financial controlling and that they implement it to a significant extent. The analysis of the indicators and responses regarding the implementation of financial controlling points to the link between performance indicators and the establishment of financial controlling. Reports, policies, and procedures are some segments of financial controlling that enable an enterprise to operate more successfully, to provide business continuity, and to prevent unwanted effects of a dynamic market.   Some 58.3% of the surveyed enterprises had the indicators by which they can be characterized as successful, which is illustrated by Figure 3.
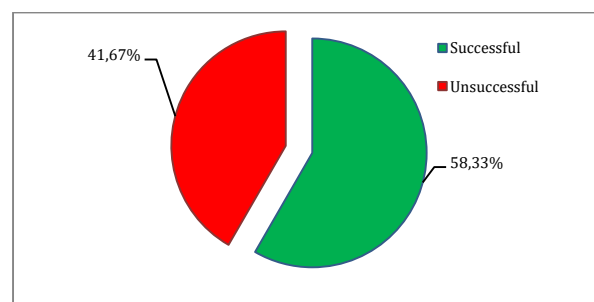

Figure 3. *Share of successful vs. unsuccessful enterprises in the sample*
Source: Authors' research

To link enterprise success and established financial controlling was the main task and research focus was on the analysis of these two variables. After the sample analysis was made, referring to the observation of which enterprises have the established financial controlling and which enterprises are

successful, further analysis was made so as to find out which successful enterprises have the established financial controlling. Twenty-one enterprises in the sample had the financial indicators that satisfied the criteria of a successful enterprise. In the group of successful enterprises, 61.9% had the established financial controlling while 38.1% of them did not have it (see Figure 4). It is evident that the link between these two factors or variables tipped the scales in favor of the enterprises that had the established parameters of financial controlling. It can then be concluded that the enterprises that implement financial controlling efficiently incorporate their input parameters, resources, policies, and procedures in order to get the best quality output possible.
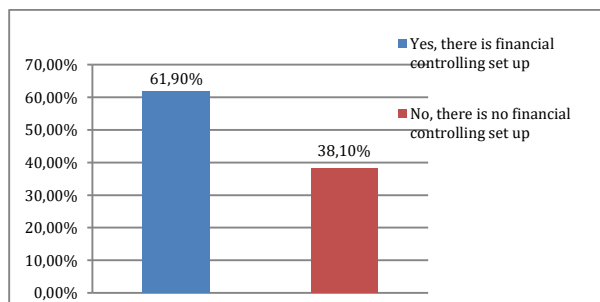

Figure 4. *Analysis of successful enterprises inthe sample in the domain of financial controlling establishment*
Source: Authors' research

Medium-sized enterprises that were characterized as "successful without controlling" also registered solid financial indicators. However, interesting enough, through additional interview with this group of subjects, it was established that we cannot authomatically claim that these enterprises do not implement forms and procedures. Their advantage is rather defined by the quality of their management teams. Enterprise management has strong entrepreneurial skills and exercises the function of financial controlling but does not perceive the function as such nor does it have the appropriate policies and procedures. It can be stated that their main competitive advantage is entrepreneurial management which in its own (somewhat intuitive) way monitors the segments of sale, billing, money flows, and market reaction. Along with the analysis of "successful" enterprises we made the analysis of the "unsuccessful" ones and the

establishment of financial controlling in such enterprises. The analysis showed more dramatic results in the sense that 66.7% of the unsuccessful enterprises had financial controlling and 33.3% of them did not have it, as presented in Figure 5.
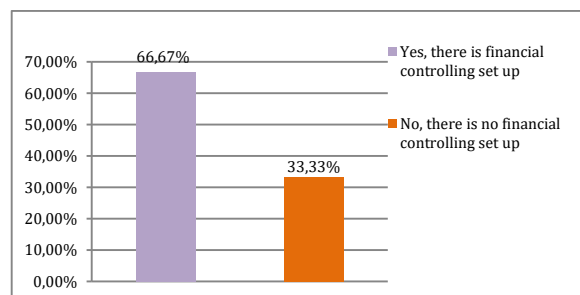

Figure 5. *Analysis of unsuccessful enterprises in the sample in the domain of financial ontrolling establishment*
Source: Authors' research

In the view of the above, a serious question is raised in terms of the link between financial controlling and enterprise performances. In other words, there is a significant percentage of "unsuccessful enterprises with financial controlling". Several reasons were revealed through additional interviews with this group of the subjects. We can tentatively divide them into internal and external as follows:

- Internal
  - o Simply put, they did not implement financial controlling properly.
  - o Responded to have financial controlling but they have it only declaratively, not in practice.
- External
  - o Untimely reaction to market changes.
  - o Lack of innovations in business.
  - o Limiting geographical and political situation in the country, etc.

5. Concluding remarks

The link between financial controlling and the performances of the medium-sized enterprises in Tuzla Canton was investigated through the analysis of the establishment of financial controlling in the enterprises, i.e., through the analysis of the success and unsuccess of the sampled enterprises. Based on the conducted research, it can be stated that successful enterprises in the Tuzla Canton efficiently established financial controlling, which helps them in realizing good business results and

providing stability and continuity of business activities. In terms of percentages for the sample data and the data on financial controlling established in SMEs in Western countries (France for example), we can conclude that there is still scope for the enterprises in BiH to improve and have more quality management of their input and resources, and to create better policies and procedures so as to increase financial stability and business performances.

As financial controlling is rather new in BiH and primarily incorporated in large enterprises, banks, insurers, and enterprises acting as the branches of the enterprises from the West, the enterprises in the Tuzla Canton have to come a long way to implement all the functions of financial controlling in order to maximize enterprise output. The conducted research also enabled us to observe financial controlling in the enterprises not characterized as successful, which showed its implementation in such enterprises. It is evident that these less successful medium-sized enterprises in the sample have some sort of financial controlling. It is perhaps not incorporated in all its segments properly, which is why certain results are missing. In addition, a question is raised whether financial controlling implemented by less successful enterprises is financial controlling in the true sense of the word or is it just the way the owners or directors as individuals do things. During the research, the enterprises responded positively to many questions regarding financial controlling. When in additional interviews questions were asked about the written policies and procedures, many of them stated that they did not have them but rather implement them arbitrarily and "on the spur of the moment". This is why the question is raised if the medium-sized enterprises in the sample have financial controlling established through defined policies, procedures, and reports or just implement some tasks of financial controlling based on which they create their business decisions and strategy. Financial controlling should be the basis for the management in creating strategic decisions and the tool for prompt reactions, if used properly. It should enable enterprise stability and continuity of business activities regardless of the changes in the management or even the

owner, thus significantly decreasing the dependence of an enterprise on an individual (director and/or owner). There is still scope for the medium-sized enterprises in the Tuzla Canton to improve their business by establishing financial controlling in the true sense of the word and to take account of every segment of business which is important for business performances (for example controlling of financial resources, controlling of receivables, inventory controlling, etc.). The analysis and processing of input parameters for he sake of maximizing the utilization of resources through written policies and procedures may improve enterprise business, which is why medium-sized enterprises should take the possibility of establishing functional financial controlling. Hence, financial controlling is the segment of business which medium-sized enterprises should de facto incorporate in the fullest sense. It is certainly in the interest of owners to be able to "separate" from their enterprise, knowing that it would continue the right way and have the same or better business performances. In this respect, it would be interesting to research practical implementation and knowledge of financial controlling, instruments or strategic and operative controlling, etc., among the owners and/or directors of SMEs as well as their needs for the (further) education in this domain. The aim might be the improvement of business performances and the provision of business continuity, which has the consequences on the entire economy; for example, in the European Union SMEs make 99% of the total number of enterprises and hire around 60% of the total number of employees.

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