Časopis za poslovnu teoriju i praksu
The paper submitted: 13/05/2020
The paper accepted: 18/06/2020

UDK 005.6:657.6]:004(497.6)
DOI 10.7251/POS2024127S
Original scientific paper

Simić Slavko, Associate Professor at NUBL-Independent University Banja Luka, Bosnia and Herzegovina, bono@blic.net
Marković Branko, Ph.D. at Union Nikola Tesla University, Belgrade, Serbia
Mujanović Erol, University Toulouse 1 Capitol, Toulouse, France

BUSINESS CONTROLLING FUNCTION IN RESPECT TO THE TRANSFORMATION PROCESS OF DIGITAL BUSINESS

Summary*: The research paper emphasizes the importance and necessity to transfer business operations to digital platforms, and at the same time sheds light on the respective challenges facing the controlling function. These changes, referred to as digitization, will undoubtedly affect the basic business controlling function in all companies, as well as the employees which will have to adapt to the new digital environment within the controlling groups and business units. The goal of the conducted research was to identify the formal characteristics of the business controlling function in companies located on the territory of Bosnia and Herzegovina. The resulting analysis has shown that the views of both employees and management vary greatly with respect to the original characteristics of the business controlling function. This variation is causing, subconsciously or consciously, the companies to assess and present themselves differently from the actual state.*

Key words: *digitization, transformation, business, controlling, management, Bosnia and Herzegovina*

Jel classification: *M21*

INTRODUCTION

To study how business controlling affects the digital transformation process of business, in particular how the digital transformation affects the business function of the controlling framework, will define the scope of the term "digital transformation", and within what role the business controlling functions plays.
By observing the digital transformation as the largest innovation that is being introduced virtually in all commercial and public systems, which is reflected in the adjustment to the new business environment and the optimal exploitation of the new opportunities provided by the market-disrupting technologies, such as Artificial Intelligence (AI), 3D printing, Internet of Things (IoT), Big Data, it is important to point out that due to the nature of the transformation the system cannot be structured in the same manner as previously, nor to the same extent as with popular commonly used technologies with the applied techno-economic business models. When applied the innovation changes the meaning of what it is applied to and in the same way the digital transformations change the meaning not only of the business system, but also of all elements of the ecosystem in which it operates, that is, the very essence of social organization and the paradigm. With this in mind, the authors in this paper offer the reader an insight into the the-state-of-the-art structural organization when it comes to processes and respectful consequences of digital transformation for both companies and ecosystems, with a special emphasis on the role of the business controlling functions within the processes of transforming business systems and their operations.

1. DIGITAL TRANSFORMATION WORKING FRAMEWORK

Assigning a structural context to values and parameters around which the digital transformation takes place, that defines the direction and the outcome of the transformation, we arrive at the digital agenda or digital strategy. This is a strategic document that companies will have to create and enact, will define the directions, tempo, reasons, and set target goals of the transformation, as well as the criteria of acceptance respectfully. Companies commonly start from a misconception that the digital transformation boils down to finding new opportunities for disruptive technology application within the company. Other aspects of the digital transformation such as the enterprise digital competence, agile innovation, business models modifications, changes in operations and processes, as well as entire structural displacements and changes in the operations of the induced digital transformation are given very little attention or completely neglected. According to Professor Jeanne Ross (MIT Sloan faculty) digital transformation can be understood and seen in two independent parallel tracks in which changes occur simultaneously in the company and the environment:

1. Digital Transformation in the strict sense, which includes achieving operational excellence of enterprise performance, more specifically business operations,
2. Digital Transformation in a broader sense, which implies rapid business innovation, most often associated with a change in the business model by which the company operates.

In order to avoid detrimental strategies, whether feasible or not or leading in the wrong direction and inevitable destruction, it is necessary to understand the scope of the digital transformation. To avoid this scenario among the requirements are the clear understanding of the context, the relationship between individual elements of the system and/or changing environment, and the finding of quantifiable parameters that define the transformation or its outcome. With this in mind, for most of the standardized business sectors, there are orientation solutions, within designated software platforms designed for company evaluation and validation, as well as the surrounding environment, products, services, and value perceived by to the end-user. The application of the above-mentioned solutions and the constant pursuit of new and more efficient transformation paths is a task assigned to controllers and business strategists. The goal is to enable the company to survive the existing crisis and transform according to the requirements and needs of a new business environment that is spontaneously being introduced by novel disruptive technologies and business models based on the same.

According to the main scope within which we should start and implement the digital transformation, the uncertainty of the direction the digital transformation process will take is conditioned by the responses to the following questions:

- What will happen to the industrial sector that constitutes the business environment within the company operates?
- What actions will the company's management take and at what time? What short and long term measures will be implemented and how will they affect the business performance? (What are the desired effects?)
- How will the company's management and employees know if and when they succeeded in the processes of digital transformation? (How to define the success criteria based on company performance outcome?)
- Who will own the company's digital transformation process, its respective processes, products and / or services? (Why, by name, will be responsible and have the authority and skills to execute the change, making level based decisions?)
- Where will the company invest its funds, under what conditions, whose funds and which funds?

Defining the questions and providing the answers, constitutes a rough strategy definition, so that all possibilities for transformation that are for any given reason inaccessible to the company, or are not identified as relevant by the management and strategy and controlling team,

are rejected. The controller function role in defining the strategy is more than obvious, given that the controller is defining the scope for the implementation of the digital transformation process (verifying the feasibility preferred strategy before its execution) through the development and verification using scenario modelling.
Digital transformation, in simpler terms, can be defined as, in order to assess feasibility at the enterprises level, with the following quantitative and qualitative parameters:

- A company defined with a diagnosis, a defined strategic ambition, and unique value offerings for their respective customers.
- The market is defined by competitors, supply and market forces.
- Service or product users are defined by their numbers (total number of customers), intentions and tasks that they want to complete using the same products and services.
- The company's available resources for the transformation are defined by the available time, staff (but also in other ways available talents), and money.

When defining a digital strategy two key issues are often ignored that are a must as strategic alternatives. For a company to succeed in the digital transformation, irrespective of size or form or ownership, it is necessary to have a clear direction in market positioning (both in the present and desired in the future), and to identify the engines of growth and development that can be used to in the process of digital transformation. Knowing these two characteristics of business enterprises, an agile assessment of strategic options and their values must be performed, otherwise, the development strategies and their respective operational efficiencies will significantly deviate from the expected outcome.

2. COMPANY STRUCTURAL ANALYSIS AND OPERATIONS FROM THE POINT OF NEED AND LIMITATIONS OF DIGITAL TRANSFORMATION

The wished outcome of the digital transformation is to achieve operational excellence and the maximum effectiveness of a techno-economic system. In order to achieve this goal, it is necessary to optimize the organization and processes from a function point of view, in which are noncritical and inefficient processes are outsourced, and used as a service only when and if needed within the new business system. The underlying idea of a multitude of business models in a post singular economy, the emerging economic system after the completion of all the digital transformation processes, is the omnipresence of automation and techno-economic optimization at the subsystem level, where the business system operations are demanding a function of the complex optimum.
This drastically differs from the currently common practice of building businesses and economic systems, which are to a large extent self-sufficient, often horizontal, thread and organized into vertical techno-economic silos, constructed to optimize the main (carrier) technology feature that allows the achieved all other functions of the goal, therefore the reason of the companies existence.
System theory states that no local optimum (maximum or minimum), complex function, can be a global optimum (e.g. maximum) of the same. It is clear that such systems are not technologically, and therefore not economically sufficiently efficient. It is, therefore, due to the emergence of disruptive technologies, that drive the digital technology transformation, complex systems tend to be replaced and become fully automated systems, that would tend to locate the function optimum (maximum or minimum of the objective function) on an ecosystem level, in which they exist and perform their business functions.
To enable the optimum, it is necessary to transform the company and focus on only the production of just one value, which is important to the end user of the product or service, eliminating all others. While this is similar to Toyota's model of waste elimination and JIT at an ecosystem level, there are also important differences among the business architectures from the past and those that require the process of digital transformation. With this problematic in

mind, the research presented within this paper will attempt to show the architecture, reasons and limitations that lead into the process of digital transformation.
One of the most commonly used methodologies for defining a company's digital transformation is the design by consideration methodology. The basic steps which define and structure of digital transformation company according to this methodology are shown in the view (Figure 1).

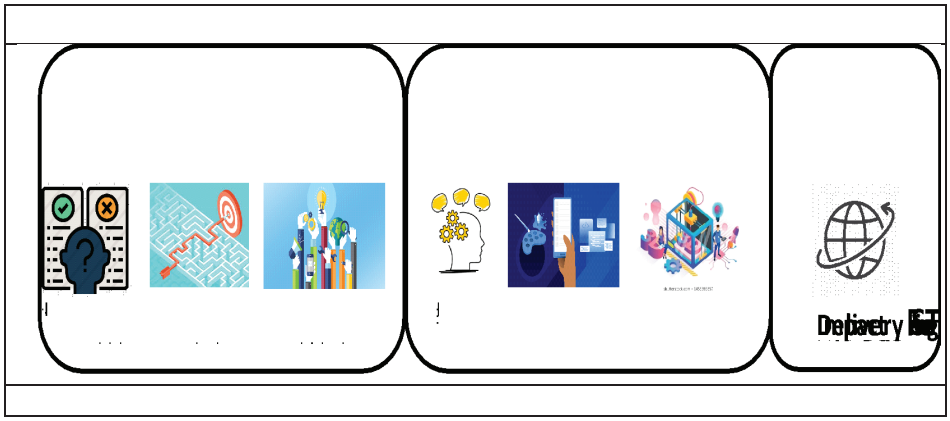

Figure 1. The steps in the design and strategy evaluation of the digital transformation. (Authors)

2.1. The company architecture and use of TOGAF methodology for defining the enterprise architecture, as a precondition for the digital transformation of business enterprises

Standard *The Open Group Architecture Framework (TOGAF)* provides an industrial framework for designing and verifying the architecture of a business organization. The architecture of the business system is one of the most important elements of the business structure that will be reviewed during the process of digital transformation, as well as adapted to the changing needs of the new business. The architecture of enterprises is the key to the success of digital transformation, because it both connects company long-term strategies with their implementation and operationalization, and serves as inspection system that evaluates the implementation plan using the architecture from the scenario model.
The goal of the architecture is to optimize often fragmented or archaic processes into an integrated environment that is a response to induced changes and represents a support mechanism for delivering business strategy goals. The architecture defines the system as a whole but not as a group of unrelated entities. Also, the system architecture is a method for designing the target state of the system and a set of recommended standards within which the business system should move.
Before a company initiates the process of defining a new business architecture based on a new business model and the need to transition to it, it is necessary to clearly determine the capabilities of the organization to define and create its own architecture. In this segment, the most important contribution is provided by the strategist, quanta, controllers, and even business developers and business analysts, given that the holders of these specific skills and functions lies the responsibility for the success of the process of digital transformation, and it is these individuals who should define and structure the business system architecture.
Companies which are attempting to perform a digital transformation generally rely on TOGAF standard that is as a fundamental method of defining the system architecture used in particular for this standardized model. It is known as the model for architecture system development

consisting of nine stages, throughout which one manages requirements as well so that the system becomes optimally efficient. The existence of this formal methodology greatly facilitates some important structural changes that occur during the digital transformation.

2.2. Scenario planning

The method of planning future events through scenario analysis was developed by Royal Shell in order to be able to adjust its business in conditions of uncertainty (oil price variations), with the needs of the market, in order to optimize the goal function (profit maximization). This method of analyzing future events and respective responses is shown in the figure below. The scenario planning method is similar to the techniques used in the software industry and agile methods. This method can be presented in five consecutive phases:

1. The problem decomposition phase, in which the problem is simplified and exposed to achieve a sufficient level of focus the problem itself and not on the system, its parts or the context as such. Defining a clear business model - a formal description of working methods, practices and conditions.
2. Risk overview, deadlines and expected outcomes of the problem. It is very important to define and examine the key uncertainties that address important changes and their respectful impact on the system. At the same time, those uncertainties are of a contextual nature and must also be taken into account ((originating from the environment and defining the environment))
3. The development of a story scenario as an alternative to the main business hypothesis we set out earlier. For each alternative, it is necessary to develop an alternative story-line and a corresponding business hypothesis.
4. We develop a strategy that is consistent with the alternative story-line and respective business hypothesis.
5. We compare the trajectory, energy and material consumption, the required level of information and data, and the outcome for each alternative and search for the one that best meets the goal function for the new business system.

Looking into possible strategies in the digital transformation of companies and their evaluation is accomplished by using a matrix with inherent values of shipments delivered to users, and the capabilities and limitations of the business system. An example of a simpler analysis of this type for small manufacturing enterprises is given in the following presentation (Table 1).

Table 1. Scenario vs. Strategy (Authors)

STRATEGY	SCRIPT			
	Market saturation	**The challenge of imports**	**Possibility of export**	**New added value**
The firm is striving to capitalize on growth in new markets	Focus only on safe possibilities	Focus on the existing market	Examine new possible export markets	Examine new export markets
The company is developing a new product line	Check products that are grouped around the lowest satisfactory quality on the market	Examine value-added products and low-quality products	Examine export products in the product class on the market of the lowest satisfactory customer quality	Added value for quality products
The company is building a new management team	Focus strongly on customer service and contract sales	Focus on accepted sales, customer service and staff training	Focus on sales, product marketing, team training	Focus on sales, staff training and product marketing
The company is trying to improve and enhance its business system	Focus on a system that will eliminate costs	Focus on a system that will eliminate costs and increase customer satisfaction	Focus on systems that enhance user experience and sales	Focus on customer satisfaction, service and sales systems

For each field in the table, one must create a story-line scenario according to which the system will be tested both on the feasibility of the given strategy (necessary changes, amount of investment, time) and on its efficiency in case of feasibility.
To accomplish this it is necessary to look into the business of the company through the prism of its products, services and opportunities to produce and deliver something in a certain quality at a satisfactory price. In this sense, we must define the digital offer as an intersection between what is technically possible and economically viable to deliver to the customer or user, and the needs and desires of the user in relation to the products or services that the company offers.
It is important to note that due to rapid changes in the context and the environment, possible strategies can be tested within a relatively limited time-frame that can never exceed one economic cycle, although the recommendation is to test strategies that give their results for a maximum three years

3. ORGANIZATION AND INFRASTRUCTURE PREREQUISITES NECESSARY FOR THE SUCCESSFUL IMPLEMENTATION OF DIGITAL TRANSFORMATION

The most significant change (Vuko and Ojvan 2013), that takes place in enterprises during the digital transformation, is the automation of business processes. Hence a significant number of analogue interactions are transferred to *the cloud* environment, and the rest relies on dedicated infrastructures designated within companies and acting as internal services. The digital transformation uses data coming from users and business processes, with the intent to improve the company's business to the point of becoming exceptional, within the sector it operates.
Hence the entire company business of the follows the fast, high-quality and continuous flow of value creation that the user perceives through the use of respective services and products (Simić 2015; Šljivić and Skorup and Vukadinović 2015; Verburg et al. 2017). To achieve this goal, in addition to the necessary technology of physical and chemical processing of semi-finished products and adding value, companies must develop systems for predicting consumer needs, which can be derived from user behaviour data. This is especially true for data pertaining to the user experience and the manner the product or the service provided by the company is used. To obtain such data and utilize them in the best way imaginable. The company must create a digital infrastructure for collecting and processing data. It has also the alternative to move this data processing operation to cloud environments gaining constant accessibility, safety and efficiency.
Therefore it is necessary to develop appropriate critical infrastructure that could be outsourced to other companies but which must be continuously available to the company at all times. Also, during the implementation of digital transformation, there is a necessity to standardize the data, their assigned location, methods of access, security, operational mechanisms, and enable interoperability between various internal and external processes. Within the same, the system must be able to create new value through the business processes themselves, but also through external processes that only use the collected user data.
The digital transformation as such, as well as the future operations of the enterprise, is carried out using the operational a critical company infrastructure, which represents the backbone of corporate business, which further comprises of the following structurally arranged elements and their relations:

- Standard processes,
- Shared data,
- Shared applications,
- Technology sharing,
- Corporate network and infrastructure services

The significant advantage of automation and automated business processes is that they are not confined within a vertically hierarchical arranged business-technical silos. By standardizing

and creating readily accessible data infrastructure, the company is able to create value outside the company itself, by sharing jurisdiction and operations over data from other silos. This is an especially interesting *modus operandi* for "Smart Cities", where the opening of the city's data enables enterprises that are digitally transformed to operate beyond their traditional business sectors, thus profiting in several aspects and proportional to the “Big Data” scope while minimizing business risk.

From the point of atomized business processes, it is clear that the function of controlling the business in the process of digital transformation will induce significant changes that need to be followed in lock-step to the tune of the parent company. This further argues that the business controlling function is increasingly moving from the classic purpose, predicting the future and adjusting business based on management signals derived from management accounting, and increasingly moving into the domain of technical technology business. This leads to the conclusion that that controllers themselves must master this knowledge to stay relevant and up-to-date for their basic business role, that is, the function of management adviser.

4. LIMITATIONS OF ENTERPRISE DIGITAL TRANSFORMATIONS AND THE ROLE OF THE CONTROLLING FUNCTION IN OVERCOMING THE LIMITATIONS OF HIGH-SPEED DIGITAL TRANSFORMATIONS FOR ENTERPRISES

In today’s world, we see the processes of the digital transformation of enterprises (Tešanović and Kukobat and Šobot and Grivec 2019), in many societies, most noticeably in public enterprises or state institutions that are potentially perceived as a special type of threat to the existing social order. This perception is due to the changes that need to be implemented by the existing institutions. The changes will push them beyond what is their current recognizable structures, contexts, and operations, requiring from the institutions 24/7/365 availability through a multitude of channels, at a much higher level of efficiency and transparency, as well as providing unique user experiences. One can understand their stance since these are not characteristics or competencies of existing structures, on top of which there are dematerialization demands in parallel.

Also, when it comes to the digital transformation of private enterprises, it is noteworthy that it is often impossible or at least significantly impeded due to lack of appropriate legal frameworks or legal-economic ecosystems. It is for these reasons the enterprise strategies in respect to the digital transformation must be planned well in advance so that they can adapt to the new environment in which they need to operate in the near future. This means that the implementation of new technologies on the market and business models be accompanied by changes in the regulatory environment in which enterprises operate. The critical role in this synchronization process is owned by the strategists, quanta, business analysts and controllers, who must find ways to convince legislators of the need for changes, as well as the preparation of a best possible framework for the development of the digital economy in which enterprises conduct their business.

Specific limitations in regards to the implementation of the digital transformation, in the Balkan region, could represent an overall lower level of ability the gain new knowledge and technical skills, in particular the low level of technical discipline, which is necessary in order to digitally transform and move away from established practices. Since is the skill level of the workforce, in general, and specifically technical, is crucial for the digital transformation, Deloitte assigned this characteristic a key role in the transformation process (Duvnjak and Babic 2014) at the level of the national economy. According to Deloitte analysts, the lack of or low level of, general and technical knowledge could lead to massive fallout during the processes of transformation in small and medium enterprises within the national economies, which can seriously disrupt the same (Duvnjak 2018).

5. RESEARCH METHODOLOGY

5.1. Research Methods and Instruments

The conducted research is both quantitative and qualitative. The quantitative research was conducted through a questionnaire in which the first part of the questions referred to the company's basic business data in which the respondent is employed, while in the second part a group of dependent variables was examined by means of questions and claims, which were evaluated on the Likert scale. The above-mentioned statements examined the respondent's opinion on the state of the controlling function in their respectful companies.

5.2. Research Aim

The aim of this research is the examination of the respondents' opinions on the impact and importance of the basic factors of the formal controlling function in the company, as well the consideration of the possibilities for fulfilling the stated conditions in the company. Also, the aim of the qualitative research was to investigate what paradigm is prevailing in the local businesses regarding the function, elements of control and the approaches to operationally applying the function in companies located on the territory of Bosnia and Herzegovina.

5.3. Research Hypotheses

Hypothesis H0: The perception and paradigm for the business controlling function in companies in BiH differ significantly from what the formal features and elements of this business function are.
Hypothesis H1: Management and employees consciously and unconsciously publicly present their companies differently from the facts.

5.4. Sample Research

This research was conducted on the territory of Bosnia and Herzegovina during the 2019 (March-November). A total of 48 respondents participated in the research, from 36 economic organizations, and have the following distribution in terms of size and number of employees: 33.3% of respondents came from companies with less than 10 employees, 16.7% of respondents came from companies with between 10 and 49 employees, 33.3% of respondents came from companies with between 50-249 employees, while 16.7% of respondents came from large companies with over 250 employees. Respondents came from companies that had the following distribution of turnover realized in the previous year (2018): 58.3% of surveyed companies had a turnover of less than 4 million KM, turnover in the range of 5 to 50 million KM had 33.3% of respondents, while 8.3% of companies had a turnover of more than 51 million KM.
During the course of the research, a total of 48 questionnaires were collected, which were statistically and logically processed. Descriptive analysis was used for data analysis. Since the initial raw data analysis showed significant discrepancies between the control group questions and basic questions about the independent variables, an additional set of qualitative interviews was conducted with 12 individual's representative of their enterprise in respect to the controlling function. The research was conducted by interview during a lecture at the Controlling Academy 2019. We also used methods of checking logical consistency, understanding the gap, deep insight as well as tools for determining the company position from the structural readiness point of view for the implementation of the controlling function in companies.

6. ILLOGICALITY IN ANSWERS CONCERNING THE FORMAL ESTABLISHMENT OF THE CONTROL FUNCTION IN COMPANIES IN BIH

To the question: “Is there an introduced controlling function in the company?",83.3% of respondents answered that this function formally exists in their company, while 16.7% of them denied the existence of any form of organized controlling function in the company. All respondents whose replies were positive when asked whether controlling was introduced in the company, confirmed that there are individuals within the enterprise who are formally in charge of the controlling function. Only one company, large in size, had a controlling department. This statistical distribution spoke in favour of our ability to collect and process data, but after checking the answers to the control questions, that were an integral part of the questionnaire, it became clear that either the respondents did not understand the questions about dependent variables, or consciously gave inconsistent answers. Precisely for these reasons, it was decided to conduct an additional qualitative analysis by interviewing 12 individuals that were attending the controlling academy at that time, all working for their respective employers. This allowed us to do a logical check of the meaning and causality of certain answers obtained during the research. Based on this analysis, it was concluded that most respondents, as well as company management, have incorrect paradigms and ideas about what the controlling function in the company is, and what it serves for. The phenomenon that was observed manifested itself in the fact that respondents expressed affirmatively regarding their companies capabilities even when they were aware they are providing false and misleading answers.

6.1. Misconceptions, beliefs and associated risks

In order to further examine the representation and operational application of the controlling function in companies, it was necessary to make a deeper factual review of the situation. The goal was to determine whether the perception of management and employees matches the formal requirements that must be met, in order to be able to state that the function of controlling is both institutionally and organizationally represented. Such “Deep Dives” into the data (due diligence) are common both during the in-depth inspection of companies for market value assessment and , according to the requirement to understand the market position of companies, is often one of the primary task assigned to controllers. By applying the easy-to-use tool on the data set we gathered from the company's representatives, we were able to identify what the business paradigm is as well as the position and the role of controlling within the given paradigm in the company respectfully. This allowed us to identify a large number of distribution companies that have formally appoint a person or team to the function of controlling, yet they do not understand the function itself and do not know the formal requirements in practice or theory, thus cannot implement the required changes. During the examination, it became obvious that there is a mental barrier that stands in the way of correcting existing wrong paradigms, especially if their correction would require work and resources above a certain threshold perceived as appropriate. The height of this threshold largely depends on the position of the company in the market and has a tendency to decrease as the market position of the company deteriorates.

After the questionnaire, an additional survey was conducted on the same employees that are in charge of the controlling function in their respectful organization. We came to the following representation of the mental opposition, whether and how the contorting function is established by the individual assigned to the respectful role. In the figure below (Figure 2), a distribution plot of frequencies in respect to the implementation and application of individual controlling elements is visualized. The data was provided by company representatives, who claimed to have implemented the controlling function. The plot clearly shows that in a significant number of companies either there is little or no controlling function or, more likely, the management of these companies does not possess even the basic knowledge and skills in the required areas. In

order to create a better perception and public opinion of themselves, they then consciously present incorrect information in surveys.

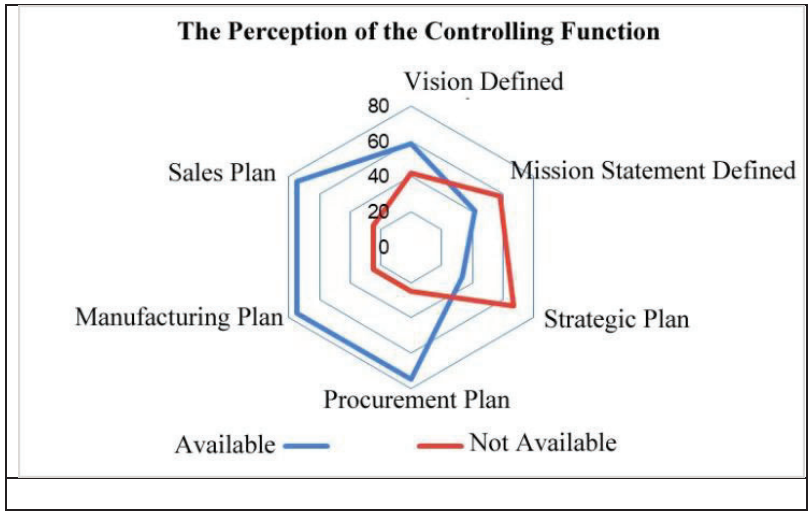

Figure 2. The difference in the perception of the concept of controlling and the fulfilment of formal requirements for the implementation and operational functioning of the controlling function in companies in BiH. (Authors)

From the above plot, it is obvious that in economies and societies that are primarily of a re-distributive nature, such as economies derived from the economy former SFRJ, there is a significant discrepancy between the formal nominal and current state of enterprises. Namely, the internal perception of management and employees is not based on measurable and verifiable facts but is based on personal beliefs and desires of management and owners. This is a very dangerous *modus operandi* that Professor Dragan Milošević summarized in his economic observations: *"The company grows and develops to the limits of mental abilities of owners and / or top managers"*, it becomes clear that this situation cannot be long-term sustainable and that if no changes are undertaken by most companies, they will disappear from the market in the foreseeable future.

This is becoming more evident as we focus our attention on structural illogicalities we observed in the received responses, provided by the management in charge of the controlling function in the surveyed companies. Namely, the success of a company depends, according to classical economic theory, on the actions of a rational agent. In other words, classical economics is based on the idea of the existence of closed, relatively isolated systems, within which homogeneous isolated agents operate, making rational decisions about what to do, leading to a static, difficult-to-change output at the macro level.

With this in mind, the following must be taken into account. The aggregate model of a system; a system viewed as an aggregate of several subsystems composed of interactions and results of interactions of different agents. Within this model, the agent represents the mean value of a system function. Agents are limited by rationality (in terms of their rational action) due to lack of information, that is, lack of information they are able to possess, cognitive limitations of the human mind (the mind of a foreign organ) and time available for decision making. Agents do not have all the necessary information, nor can they process and calculate it at any given time, so "rationality" in decision-making at the agent level is not always applied consistently and completely in decision-making. Therefore it is very important to verify whether the company has the necessary mechanisms and tools for collecting and processing contextual business data, as well as processing internal data and processes, which are necessary to assess the state and position of the company that defines the starting point of each strategy in operational decisions.

Hence the facts about the state of ICT and other subsystems, whose primary role is the collection and processing of raw data to create valid action insights which are the essence of modern business management, were investigated for all companies within the data set.
Through empirical research, "Does the company have a business information system for data processing and reporting?" the following findings were obtained (Figure 3).

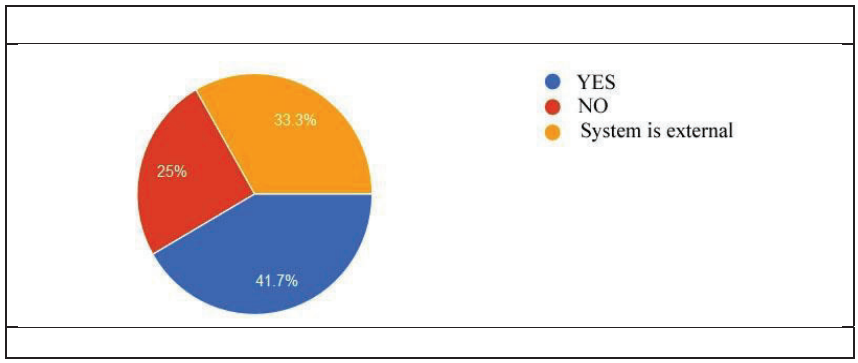

Figure 3. The observed state of the company's readiness to collect and process information relevant to business from the external and internal segment. (Authors)

Further, the examination and statistical processing of the answer to the question: "Is the company reporting from the existing business software (ERP or second-class software)?" is shown in (Figure 4).

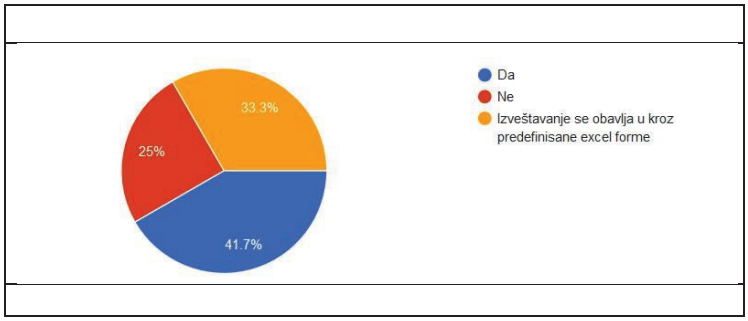

Figure 4. Method of reporting from existing business software (ERP or second class software). (Authors)

If we divert our attention to the structural illogicalities found within the managers' responses of, it is easy to deduct that the controlling function in the company is not only misperceived, but systematically given the wrong place and role. It is designed to be a marketing advantage when and if the company is appraised, but not considered a serious tool, which can contribute to good business management. Considering the conditions of great uncertainty in the market occurring after the COVID-19 pandemic and which will be part of the business environment in the foreseeable future, applying these tools would be of considerable value due to the structural stratification of the world economy. The extent of the discrepancy between what is presented in public and the factual situation within the company, whose representatives claim (Figure 5) to have an introduced control function is best shown by the imbalance between the expected and actual results of the research. Namely, more than 83.3% of companies, according to their representatives, do not control investments, which indicates that there is no systematic approach

to investment management, which again clearly shows that investment success depends on the gut feeling and market insight of investors rather than structural tools for investment management.

If we accept the correlative nature of investment management and the future company income, it can be *de facto* accepted that there is little to no systematic effort being undertaken to understand the future needs and guiding towards future goals. This being the fundamental and basic function of controlling, it raises the question: "How is the controlling function implemented if there was no effort invested in systematically understanding and implementing the basic business functions?"

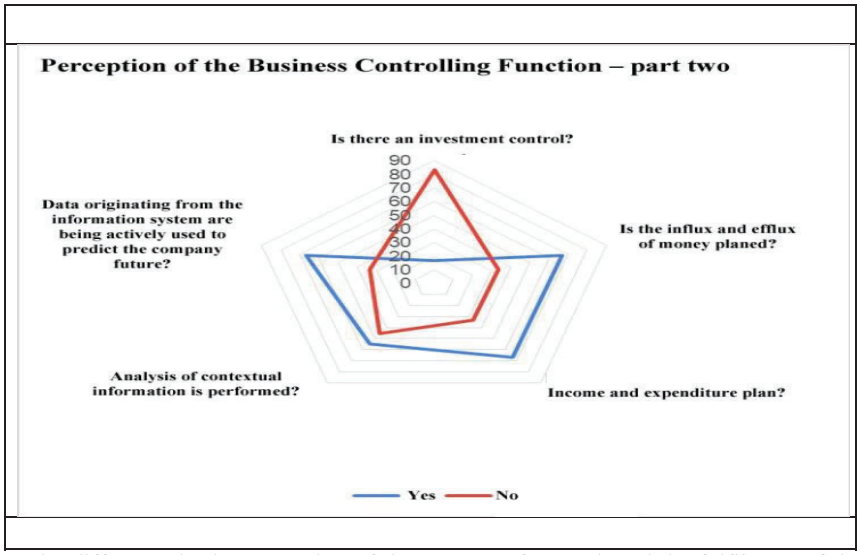

Figure 5. The difference in the perception of the concept of control, and the fulfilment of the formal requirements of implementation and operation of controlling the operating functions in the company B in the Bosnia and Herzegovina - Part II. (Autori)

Analyzing now the above presentations of the research, we see that the controlling functions by the management, but also formally in charge of the controlling function in companies are not understood, and understood rather vaguely without clear criteria that in the perception of controllers in these BiH companies could serve as criteria for validation or rejection of statements on good implementation and operational work of the controlling function in these companies. In other words, the above graphs clearly show that the logical and quantitative conditions that are from the first hypothesis are satisfied, thus confirming it. Namely, it is obvious that the perception and paradigm for the business controlling function in companies in BiH differs significantly from what the formal characteristics and elements of this business function are. The point is that management has a different perception from what the science of controlling says about these issues.

Also, it is clear that the results of the survey questionnaire, the result of a desire to the enterprise from which the respondent evidence and how to display it in a better light but deliberately circumvent structural illogical, which leads to the respondent parent is attributed to those skills and entities that de facto do not exist in the business of the same (as well as institutionally or organizationally at the level of the same). This obviously shows another claim because it is trivially easy to show that the opposite claim is not true, so it is obvious that management and employees consciously and unconsciously publicly present their companies differently from the facts, that is, much better than their real situation.

7. CONCLUSION

Based on all the above-covered topics in this paper, one of the influencing factors contributing to the market lag of the BiH economy with respect to the world market is clearly identified. The analysis shows that both the employees and the management, employed in companies located on the territory of Bosnia and Herzegovina, have different opinions regarding the formal characteristics of the controlling function, and they differ greatly from what is the industry normative. Thus they are consciously and unconsciously misrepresenting the company's current state and are not reporting the true factual state.

This consequently means that there is a lack of institutionally driven and organized systematic consideration for the future of the controlling businesses functions. It is left to the companies and individuals themselves to choose the direction of development, and it is dominated by personal preferences and perspectives of the owners and top management, rather than a group of organized and harmonized business enterprises with a focus on market trends. Since this is the case, we find it for necessary to consider a systematic approach by which the management, as well as the owners of capital in Bosnia and Herzegovina, would be able to master the basics in the field of controlling, the world's most commonly used and applied methodology for assessing a business's future and managing the same. For this task, it will be necessary for institutions and companies to invest significant effort on their behalf to train staff in this area. This necessity becomes even more prevalent, not just because it represents a development opportunity for companies and the economy, but due to the recent major economic shifts caused by the COVID-19 pandemic and the survival of entire Bosnia and Herzegovina economy.

REFERENCES

1. Duvnjak,Valentina. 2018. "Coping with Business Crisis in the EU Periphery: A Case of Bosnia and Herzegovina", Journal of Balkan and Near Eastern Studies. 20(2):196-210.
2. Duvnjak, Valentina i Babić, Zoran. 2014. „Ocjene i pravci finansijskog restrukturiranja u Republici Srpskoj". *Poslovne studije*. 6(11-12): 79-94.
3. Herat, Siryjama. "A framework for management control research*". Journal of Management Development*. 26(9):895-91.
4. Vuko, Tina and Ojvan, Ivica. 2013. "Contoling and business efficiency". *Croatian Operational Research Review (CRORR).* 4:44-52.
5. Simić, Slavko. 2015. "Application of Strategic and Operational Controlling Instruments in Enterprises in Bosnia and Herzegovina". *Research Journal of Economics, Business and ICT.*10(2):10-13.
6. Simić, Slavko. 2015. "Application of Strategic and Operational Controlling Instruments in Enterprises in Bosnia and Herzegovina". Paper presented at the first International Conference with International Participation "MISIC 2015", Srbija, Mitrovica, 28.
7. Tešanović, Sreten and Kukobat, Lazo and Šobot, Nataša and Grivec, Malči. "Modern aspects of advertising in digital marketing environment. *Business studies.* 11(21-22): 103-114.
8. Šljivić, Slavoljub and Skorup, Srđan and Vukadinović, Predrag. 2015. "Management control in modern organizations". *International Review***.**3-4:39-49.
10. Verburg, Robert and Nienaber, Ann Marie and Searle, Rosalind and Weibel, Antoinette and Den Hartog, Deanne and Rupp, Deborah. 2017. "The Role of Organizational Control Systems in Employees' Organizational Trust and Performance Outcomes**"** . *Sage journals.* 43(2):179-206.