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Preliminary Communication

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ADAPTATION OF A COMPANY TO THE ENVIRONMENT AS A DETERMINANT OF BUSINESS PERFORMANCE

PRILAGODBA PODUZEĆA OKOLIŠU KAO DETERMINANT POSLOVNOG USPJEHA

Summary: *For many years, a sustainable competitive advantage has been an imperative in the business of a modern company. One of the most important factors in gaining a competitive advantage is the adaptation of the company to its external environment. The environment in which modern companies operate is dynamic, uncertain and complex, and it is to be expected that the ability to adapt will become the most important competitive advantage of the 21st century companies that will enable them to achieve better and improved performance. However, there is still a rather small number of scientific research that link the adaptation of a company to its environment with achieved financial and non-financial performance of a company. This paper aims at examining the implied relationship between so-called flexible companies, and financial and non-financial business performance measures. The results of the research indicate the existence of a positive relationship between companies with more dominant characteristics of adaptive companies and non-financial measures of business performance.*
Keywords: *company, performance, business, environment, adaptation*
JEL classification: *M14*

Rezime: *Već dugi niz godina održiva konkurentska prednost predstavlja imperativ u poslovanju suvremenog poduzeća. Kao jedan od važnijih činitelja stjecanja konkurentske prednosti ističe se prilagodba poduzeća njegovoj vanjskoj okolini. Okolina u kojoj suvremena poduzeća posluju je dinamična, neizvjesna i kompleksna, te je za očekivati kako će upravo sposobnost prilagodbe postati najvažnija konkurentska prednost poduzeća 21. stoljeća koja će im omogućiti ostvarenje boljih performansi. Unatoč tome, još je uvijek prilično oskudan broj znanstvenih istraživanja koja dovode u vezu prilagodbu poduzeća njegovoj okolini sa ostvarenim financijskim i nefinancijskim performansama poduzeća. Ovim se radom stoga nastojao ispitati pretpostavljeni odnos između tzv. prilagodljivih poduzeća i financijskih i nefinancijskih mjera uspješnosti poslovanja. Rezultati istraživanja ukazuju na postojanje pozitivne veze između poduzeća sa izraženijim karakteristikama prilagodljivih poduzeća i nefinancijskih mjera uspješnosti poslovanja.*
Ključne riječi: *prilagodljiva poduzeća, konkurentska prednost, učenje, performanse poduzeća*
JEL klasifikacija: *M14*

1. INTRODUCTION

Over the last few decades, more and more scientists have put the connection between the company and its environment in the focus of their research (Karpik 1978; Roeber 1973; Toffler 1985; Reeves and Deimer 2012). Not so long ago, in the first half of the 20th century, organizational theorists (Weber 1947) tended to ignore the environment and the influence it has on the design and management of structures within a company. They represented an opinion that the environment is predetermined and unchanging. However, modern companies operate in conditions of a rapidly developing technique and technology, and the ability of a business entity to adapt to the fast changing environment becomes the basis of a sustainable competitive advantage (Reeves and Deimler 2012; Boylan and Turner 2017; Raguž Vrdoljak and Borovac Zekan 2017). Many theorists agree that in the future only those companies that will be able to develop exceptional adaptability skills will survive (Tuominen et al. 2004; Fullan 2010). These skills include the ability to collect information in a timely

manner, incorporate it into a company's knowledge system, manage acquired knowledge, while continuously changing established processes and mental models of the company in order to meet modern market challenges (Šerić 2018). Companies significantly invest in the acquisition of new knowledge, but knowledge management has proven to be one of the areas least dealt (Česnovar 2010). Among those who have tried to empirically investigate the relationship between adaptive companies by acquiring the concept of adaptive company and financial performance are Toffler (1985), Jennings and Seaman and many others. In order to examine this relationship, the authors have used a research instrument designed by Watkins and Marsick (2016) to measure the presence of the adaptive company concept within a company and connect it to perceptual and objective measures of company's financial performance.

2. THEORETICAL DETERMINANTS OF A RELATIONSHIP BETWEEN ENVIRONMENT AND COMPANY

Many authors, in their research, observe the company as an open system dependent on its environment and the development of sustainable competitive advantage becomes imperative for its success according to Jennings and Seaman (1994). Porter (1980, 1985, 1989, 1995, 2008) has emphasized in his research the importance of analysing the competitive forces from the company's environment in order to find ways of achieving competitive advantage. However, there is still a lack of research trying to explain how top managers view and analyse the environment in order to adapt to it. Few studies (Culnan 1983; Choo 1999) were primarily oriented towards the modalities of collecting information from the environment and their use in strategic planning and decision making by top managers, but none has so far linked the usage of information from the environment for improvement of knowledge-based companies – the so-called adaptive (learning) companies. It is the adaptive company, that is a synonym for a company that uses knowledge as the most important source of sustainable competitive advantage and development in a dynamic environment.

2.1. Adaptation theory

Adaptation theory is still the most commonly used starting point in the literature to try to explain the relationship between a company and its environment. The environment is crucial for the survival of the company in conditions of growing competition. The company needs to adapt to changes in the market environment. Thus, the authors Carroll and Hannan (1995), emphasizing the adaptation of the company to the environment, analyse the company as a changeable entity. The relationship between company and the environment was based exclusively on Hofer and Schendel (1978) and Fahey and Narayanan (1986). With a single difference that Fahey and Naravanan (1986) went a step further and emphasized the importance of adjustment theory above the level of the industry in which the company operates. Kotler and Armstrong (1996) emphasized the importance of this theory in the field of marketing, where companies can achieve their goals and operate more successfully by adapting to the needs and requirements of target markets. Mihić and Šerić (2007) and Šerić and Petričević (2009) analyse this issue in their research. The conclusion is that top managers are able to protect their companies from environmental threats by allowing them to make "smooth" adjustments. In adaptation theory, the focus of research is on how the environment affects a company. For Porter (1980), a key aspect of a company's environment is the industry or industries in which the company competes, which are divided into customers, suppliers, substitutes, potential participants, and competitors. The environment of the industry includes companies or business units and their competitors operating in the same industry. It consists of a specific set of competing forces that generate opportunities and threats, that can change due to the actions of different competitors. However, Porter's five-force model does not contain a focus company, even if the analysis is usually conducted from the point of view of a strategic business unit. The level of analysis commonly used in this situation, according to Porter and other authors (Šerić et al. 2014), is that of an organizational set, meaning that the analysis is conducted from the point of view of the specific focus of a company. In adaptation theory, the assumption about the environment is that not only it can be analysed, but it can also be *a priori* known and serve as an entry point in the process of strategy preparation (Šerić and, Luetić 2016). Companies do not directly participate in creating their environment since it is

predetermined, however a company can change these dependencies on the market environment through the adaptation process.

2.2. Adaptive companies

Ever since the publication of *The Adaptive Corporation* (1985) by Alvin Toffler, the discussion among the theorists of organizational thought has not stopped on the changes that companies face in their environment and how they need to act regarding this issue. By studying private and state-owned companies, the aim was to identify the companies capable of adapting faster and better to their changing environment. (Amanet 2017). In their discussion, several characteristics were identified that allow companies to adapt more successfully. These characteristics include the ability to cooperate efficiently among all employees, departments and teams within the company, the ability to network employees at all levels and also to network them with other parties outside the company, gaining useful information from new sources, the ability to experiment with all employees at all hierarchical levels in the company without fear from consequences of possible mistakes, and the ability of integrated learning that results in changes in internal business policies and procedures. In order for companies to develop their ability to adapt to the environment in which they operate, it is necessary to develop "adaptive management" and the key role for its implementation is leadership that is open to learning, experimenting and changing existing mental models (Meža and Šerić 2014). The transition from traditional to "adaptive management" relies on the ability to adapt the entire system by intertwining management functions and learning functions. The learning function in a company can be developed only if the management is willing to create an organizational culture that encourages and supports learning of all employees in the company.

3. INFLUENCE OF LEARNING ON THE ABILITY TO ADAPT

There are several different approaches that have tried to explain the adaptation of a company to its environment. Senge (2006) puts the emphasis on organizational learning, Stacey (2007) elaborates on the dynamics and nonlinearity of behaviour, while Forrester (1994) and Forrester and Sylvestre-Baron (1984) successfully applied system theory in an attempt to explain the mentioned relationship several decades ago. In addition to the above mentioned, there is a number of domestic (Afrić et al. 2004; Pupavac and Zelenika 2003; Žugaj 2008; and foreign authors Malekovic and Schatten 2008; Gold and Arvind Malhotra 2001; Sanchez 2003), who investigated the related domain of knowledge management. Argyris (1976), on the other hand, discussed the types of learning and the types of organizational learning. According to Argyris, adaptation is related to learning by putting it in a context known as "single-loop learning". In a single learning loop, individuals, teams, or a whole company change their actions according to the differences between expected and acquired learning outcomes. According to Zack (1999), the ability of a company to learn, accumulate knowledge from its experiences and reapply that knowledge is itself a skill or competence that can give the company a strategic advantage. Leadership in learning companies must institutionalize and improve the processes of collecting and transferring knowledge for learning to take place in the company (Vrdoljak Raguž and Borovac Zekan 2015). Knowledge acquisition includes processes related to the observation of the external environment and the internal process of measuring the implemented changes. Changes within the company call for learning something new, adapting to a new way of performing activities of an operational nature. The changes require the application of newly acquired knowledge in a new way compared to the previous practice. In this sense, learning is not only a process of acquiring knowledge based on experience, but it implies a component of proactivity in behaviour or action.

3.1. Individual, team and organizational learning

Spender (1996) sees learning as a process of experiencing and analysing, that is, transferring previously acquired knowledge. He also believes that learning is a key feature of dynamic companies. But Levitt and March (1988) argue that learning cannot be accomplished without making mistakes which occur while experimenting. Therefore, these authors emphasize experimentation component as a key component needed to carry out learning. Kolb (1984) defines learning as a process in which knowledge is acquired through experience. Learning is a relatively permanent change in a person's

behaviour that is manifested in one's interaction with the environment (McShane and Von Glinow 2011). Daft and Weick (1984) in their work *Toward a model of organizations as interpretation systems*, argue that organizational learning can be viewed as a way in which a company, perceived as a social entity, interprets its environment and adapts to it. In this paper, they hold the opinion on the company as a living organism that interprets its environment and adapts to it in order to achieve better performance. This type of learning analyses an interpretive mechanism which "stabilizes" the company, providing support in the form of learned and codified forms of knowledge such as structures, processes and routines. On the other hand, learning can be viewed as an individual phenomenon, which "automatically" produces positive organizational effects. Pettigrew and Whipp (1993) hold this opinion and connect individual learning with company performance. Individual learning involves learning through selective retention of experience that is embedded in an individual's cognition (Marsick and Watkins 2003). Individual learning is based on a number of factors, similar as cognitive abilities, learning styles, interpretive abilities, and personal mental models (Murray and Moses 2005). They also mention the understanding of learning as a collective phenomenon by which companies increase their ability to implement change, i.e. increase innovativeness, which corresponds to the definition of Meso and Smith (2000) who view learning as a process of continuous innovation through the process of creating new knowledge. One of the most significant first uses of the term "team learning" can be found in the above mentioned book written by Peter Senge *Fifth discipline: The art and practice of a learning organization*. Senge (1990) defines team learning as "*the process of aligning and developing team's ability to achieve the results of its individual members that they greatly desire*". Kayes, Kayes, and Kolb (2005) view team learning as a result of individual experience and the way that experience is transmitted through interactions within the team. As opposed to team learning, organizational learning is a process that meets needs of all stakeholders in the company. Organizational learning, according to Alfirević, Garbin Praničević and Talaja (2014), at an intuitive level, can be interpreted as a process by which knowledge is acquired, i.e. by which the organization transfers existing or generates new knowledge, "deposits" it in appropriate forms and uses it for commercial purposes. Thus, Argyris (1977) defines organizational learning as a process of "*error detection and correction*". Simon (1991) in his definition of organizational learning, sees learning as an increase in interest in a particular problem and taking actions necessary to solve it, which in turn results in improved organizational performance. Moingeon and Edmondson (1996), inter alia, mention the concept of organizational learning as an individual phenomenon through which individuals build causal and interpersonal abilities. Dixon (1994) warns that organizational learning is not only the sum of the total knowledge of all individuals in the company, but also the collective use of the ability to learn and acquire knowledge. Finally, the conclusion is that organizational learning is based on individual, team and organizational learning processes. Regardless of the accepted theoretical concept of organizational learning, for the purposes of this paper, operational definition of organizational learning will be accepted. It views learning as a way a company interprets its environment and adapts to it resulting in a consistent increase in company performance (formation of competitive advantage based on knowledge).

3.2. The role of learning in achieving company performance

Adapting the company to the environment is considered to be one of the key success factors of strategic management (Brandon 2014) and organizational learning is considered to be one of the fundamental ways of implementing it into practice (Frandsen 2012). Namely, learning is regularly associated with various aspects of progress, i.e. with cognitive changes and behaviour - both current and future. Therefore, it is commonly assumed that learning will improve business results. This implies that the acquired knowledge is relevant to company's business. Edmonson and Moingeon (1997) describe two basic forms of learning that can improve work or business results, and these are individual learning and organizational learning. Learning results in creation of new plans, and has influence on the construction of new characteristics of a company. It leads to new knowledge and expands the "repertoire" of available forms of behaviour in the company. Therefore, changes that occur in the company and adaptation to the environment are a necessary consequence of effective learning. Without achieving a "tangible" outcome, it cannot be said that learning is in the function of improving work and business results of the company, but is an end in itself, or individuals in the company use it to achieve their own goals. Matić (2009) argued that an increase in the intensity and complexity of forms of organizational learning results in better performance. García-Morales,

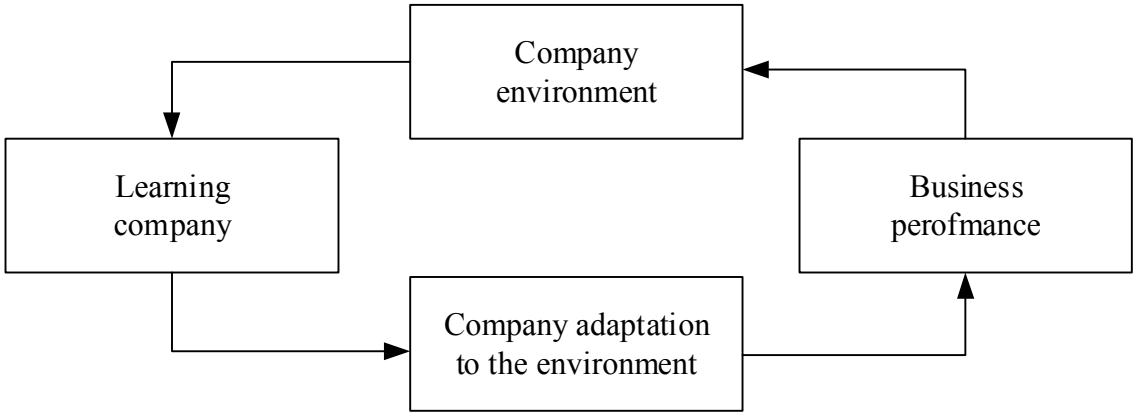
Jiménez-Barrionuevo, Gutiérrez-Gutiérrez (2012) and Freeman, Eddy, McDonough, Smith, Okoroafor, Jordt and Wenderoth (2014) came to the same conclusions in their research. However, the term learning can encompass various initiatives and forms of change and improvement within the company, and this is why learning, since early 1990s, has become an interesting and often used concept of modern management. Some authors (Borovac Zekan 2017) consider it to be so important and believe that without learning there can be no change in the company, no improvement within its organization, so they introduce a new term - *learning organization*, about which Peter Senge (2006) talks in his book *"The Fifth Discipline"*. Such a company is built using predefined principles, which should be followed, all with the aim of changing the established ways of doing business "for the better". However, such a company cannot be created without fostering individual learning and human resource development, in order to create a culture in which learning and change are common and widely accepted. Therefore, on one hand, the theoretical emphasis in explaining the success of the learning company is placed on characteristics of the company or system (Vrdoljak Raguž, Borovac Zekan, Peronja, 2017), and on the other, on individuals and approaches to their personal development. Watkins and Marsick (2016) link learning at the level of the individual, team and company as a whole, and determine how an effective learning company leads to an increase in the amount and usability of knowledge, which results in an increased performance. It is obvious that a number of managerial activities, especially those related to human resource management and leadership, can have different effects on learning and other forms of knowledge creation. However, the characteristics of employees or a company as a whole - developed over a long period of time, can affect the effectiveness of learning, which is why the overall attitude of the individual or company as a whole towards knowledge and its creation can be "read" from its culture (Alfirević, Garbin Praničević and Talaja 2014). The concept of learning culture can be described (very generally) as a set of values and forms of behaviour, which facilitate the application of learning mechanisms. It can be said that the learning culture is a set of values, processes and practices that have a significant impact on self-sustainable and continuous learning in the company. One of the most important indicators of the development of a strong learning culture is an easy and simple sharing of important information among individuals within the company. Knowledge thus becomes the engine that turns intellectual capital into business value.

4. RESEARCH MODEL

The ability of a company to adapt to the environment represents its competitive advantage. A successful company is one that continuously learns, adapts to change so that it changes faster than the competition, one that is efficient and rational in doing its business, and flexible and adaptable to change (Dujanić et al. 1997). This paper empirically analyses adaptive ability of a company, which according to Wang and Ahmed (2007) is one of the fundamental elements of dynamic abilities. The theorists dealing with the topic of dynamic capabilities, and adaptive capacity, as a part of them, have been trying to answer the fundamental question of how companies develop skills and competencies that enable them to compete in the global market and achieve a sustainable competitive advantage. Adaptation is an adjustment of an organism to the environment and is considered to be the way in which an organism is kept alive in changing life circumstances. The ability to adapt is determined by the ability of the company to learn, adapt and change. The integrative model of a learning company, created by Marsick and Watkins (2016), brings together the two main components of the company that are seen as interactive agents of all the changes occurring in the company; people and structure. Learning results in changes in the company that over time make it more successful in adapting to its environment. The ability of a company to learn is the key element that encourages the company to adapt in a very complex competitive environment. A model is designed to enable measuring of organizational culture of learning in the company and the changes in the structure, and to make top managers aware of the current position of the company in relation to seven disciplines that need to be built for the company to become a learning company. These seven disciplines are the foundation for building an internal culture in the company that supports learning and thus encourages dynamic learning processes in the company. The research goal was defined in accordance with the mentioned research problem, and it refers to fundamental determinants of the implementation of learning company concept, whose application should have a positive impact on the company's adaptation to the environment and ultimately on company performance. The problem and the goal of the research are

related to three interrelated objects of research: learning company, company's adaptation to the environment and performance, as shown in the conceptual model (Figure 1).

Figure 1. Conceptual model of research.



Source: Authors 2020.

In the presented model, there are three levels of learning that have an impact on the ability of the company to adapt directly but also indirectly, to the overall performance of the company. The environment is a control variable. It is expected that a dynamic, uncertain and complex environment will influence the need for learning in the company and result in the construction of a learning company concept. The company performance measures were used from Templeton et al. (2002), and consist of objective (ROE, ROA, ROCE, gross profit margins, operating profit margins and net profit margins) and perceptual performance measures - financial performance and knowledge performance. The objective performance measures are joined with perceptual performance measures since perceptual performance measures correlate with objective measures. In the second construct, the "adaptability" indicators are grouped into three groups of indicators. The ability to adapt a company is operationalized according to the theoretical papers of Yang, Watkins, and Marsick (2004) through the following variables: the ability of the company to connect with its environment, the ability of the company to establish knowledge acquisition and sharing systems, and the ability of the company to provide strategic leadership for learning. These authors identify learning with adaptation and claim that if the company encourages individual, team and organizational learning, knowledge is acquired which, provided that the concept of a learning company is present in the company, i.e. its seven dimensions, is applied in order to adapt to new environmental conditions.

4.1. Research hypotheses

The aim of this paper was to theoretically explore and empirically test the relationship between the adaptation of the company to the environment through three levels of learning and the impact of this adjustment on the achieved financial and non-financial performance of the company. In view of this theoretical basis, the following main hypothesis and auxiliary hypotheses can be set:

- *H1 A company with more developed individual, team and organizational learning achieves better overall performance of the company.*
- *H11 A company with more developed individual, team and organizational learning achieves better financial performance of the company.*
- *H12 A company with developed individual, team and organizational learning achieves better non-financial performance of the company.*

Although many authors assume the existence of a link between learning and overall performance of a company, both financial and nonfinancial, there is insufficient empirical evidence to support these assumptions, especially in the case of the transition and post-transition countries, particularly in recession conditions (Šerić and Uglešić 2014).

4.2. Characteristics of empirical research, sample and research protocols

The results of the empirical research are presented below, the general characteristics of the sample, the characteristics of the observed variables, and the analysis of the correlation of the research variables and the assessment of the theoretical model. The top managers of large and medium-sized Croatian companies completed the survey questionnaire. The data on companies were obtained using the Croatian Chamber of Commerce (CCC) database. The database was searched by two sets of criteria: the size of a company and the number of employees. The first set of data included all active companies, with the exception of those in bankruptcy. Such a search of the database yielded data on 344 large and 1169 medium-sized companies. From the total sample of large and medium-sized companies, it was decided to take 50% of companies from both sets in the selected sample. The sample contained 172 large and 584 medium-sized companies. A total of 155 participants replied to the questionnaire. The data received after the date that was set as the final date of the empirical research were not taken into consideration. 133 survey questionnaires were analysed; 38 large and 95 medium-sized companies. The responsiveness rate was 22% for large and 16% for medium-sized companies.

4.3. Description of learning company construct

The learning company concept used for the purpose of this research relies on the one proposed by Yang, Watkins and Marcsick (2004). These authors created a questionnaire called *Dimension of the Learning Organization* Questionnaire (DLOQ) which is a tool for multidimensional and integrative measurement of the development of the concept of a learning company within a company. The questionnaire contains seven dimensions that need to be developed in a company in order to become a learning company. The seven dimensions of a learning company represent three levels of learning; individual, team and organizational learning. The first two dimensions of the learning company concept, creating continuous learning opportunities and encouraging research and dialogue, represent the individual level of learning in the company. The dimension of the learning company concept "encouraging teamwork and team learning" represents the team level of learning. The concept of a learning company that includes establishing a system for learning and knowledge transfer, empowered actions of employees directed towards a common vision, connection of the company and the environment and support of the top manager towards the learning strategy represents the organizational level of learning. Each of these dimensions is described by several statement sentences to which the respondents give their opinion, i.e. the degree of agreement or disagreement with the stated statements according to the Likert scale of five degrees of intensity. The DLOQ used in this research is specific due to the fact that two new dimensions have been added to it: knowledge performance and financial performance. They represent measures of business success and show the link between the attitude towards learning in the company that results in changes of behaviour and the achieved results of the company (Watkins and Marsick, 2004).

Table 1. The degree of development of company adaptation at the individual level of learning

	Mean value	Standard deviation	Minimum value	Maximum value
Individual level of learning	3.65	.771	1	5

Source: Results of empirical research, authors 2020

Table 2. The degree of development of company adaptation at the team level of learning

Activities of the dimension "encouraging teamwork and team learning"	Mean value	Standard deviation	Minimum value	Maximum value
In my company, teams/groups have the freedom to tailor goals to their needs	3,.3	0.990	1	5
In my company, teams/groups treat members as if they are equal, regardless of hierarchy, culture, or other differences	3.63	0.973	1	5
In my company, teams/groups are focused on the task and on teamwork	3.98	0.749	1	5
In my company, teams/groups revise their opinions as a result of group discussions or gathered information	3.77	0.843	1	5
In my company, teams/ groups are rewarded for their success as a team/group	3.51	0.989	1	5
In my company, teams/groups believe that the organization will act based on their recommendations	3.53	0.867	1	5
Encouraging teamwork and team learning	3.63	0.700	1.00	5.00

Source: Results of empirical research, authors 2020

Table 3. The degree of development of company adaptation at the organisational level of learning

	Mean value	Standard deviation	Minimum value	Maximum value
Team level of learning	3.63	0.700	1.00	5.00

Source: Results of empirical research, authors 2020

4.4. Analysis of the relationship between research constructs using sem model

In the next part of the research, the connection between research constructs was analysed, which resulted in a graphical representation of the model of links and relationships between the company environment with regard to its two dimensions, and the discipline of the learning company concept, observed in terms of changes in the learning with financial and non-financial performance using SEM modem.

Modelling with structural equations represents an upgrade of multivariate techniques in confirming or rejecting the set theoretical model. If the correlation between the variables is determined, it can be investigated in more detail using other statistical methods. Therefore, structural equation modelling (SEM) should be used as a tool to test theoretical models. The relationship between the three levels of learning and seven disciplines of the learning company and the environment, viewed as a general and business environment, is shown in Table 5 presenting the results of the analytical correlation matrix. The correlation shows the connection, but not the causal link between variables, and for this reason it was necessary to further investigate it in more detail, i.e. its direction and intensity.

Table 4. Relationship of individual, team and organizational levels of learning with financial performance

		ROA average	ROE average
Individual level of learning	Pearson correlation coefficient	0.027	-0.071
	Sig. (2-tailed)	0.761	0.415
	N	133	133
Team level of learning	Pearson correlation coefficient	0.130	-0.038
	Sig. (2-tailed)	0.137	0.667
	N	133	133
Organizational level of learning	Pearson Correlation	0.028	-0.061
	Sig. (2-tailed)	0.750	0.483
	N	133	133

Source: Results of empirical research, authors 2020

From the results of the correlation matrix, it can be seen that none of the indicators of financial performance is statistically significantly associated with the adaptation of the company to the environment. Empirical values are greater than 5%. In the following paragraphs, a regression model is evaluated which aims to examine the dependence of one dependent variable on several independent variables in order to determine the analytical value of such a correlation. The model examined the impact of three levels of learning on the value of ROA as an indicator of a company's financial performance.

Table 5. Statistical significance of particular levels of learning (Multiple regression)

	Standardized coefficient	Non-standardized coefficients		t	Significance
		b	Standard deviation		
Constant member		0.000	0.086	0.000	1.000
Individual level of learning	-0.179	-0.179	0.170	-1.054	0.294
Team level of learning	0.405	0.405	0.169	2.394	0.018
Organizational level of learning	-0.156	-0.156	0.167	-0.935	0.352

Source: Results of empirical research, authors 2020

It can be seen from the table that there is a statistically significant influence of team level learning on the value of ROA, an indicator of financial performance of the company. The set model explained the low level of variance, which stems from the fact that the overall regression model is not statistically significant (the empirical value of the F test is 1.9467 with empirical significance at the level of 0.12531).The model of relationship between the environment, learning level and company performance explains the impact of the environment and its two dimensions (general and business environment) on the development of individual, team and organizational learning (which together represent the learning culture in the company) and their impact on company performance. A correlation matrix determinant different than 0 suggests that the selected variables are suitable for performing SEM analysis. In all situations, the correlation matrices proved to be adequate for factorization.

Table 6. Results of statistical analysis of KMO and Bartlett's test

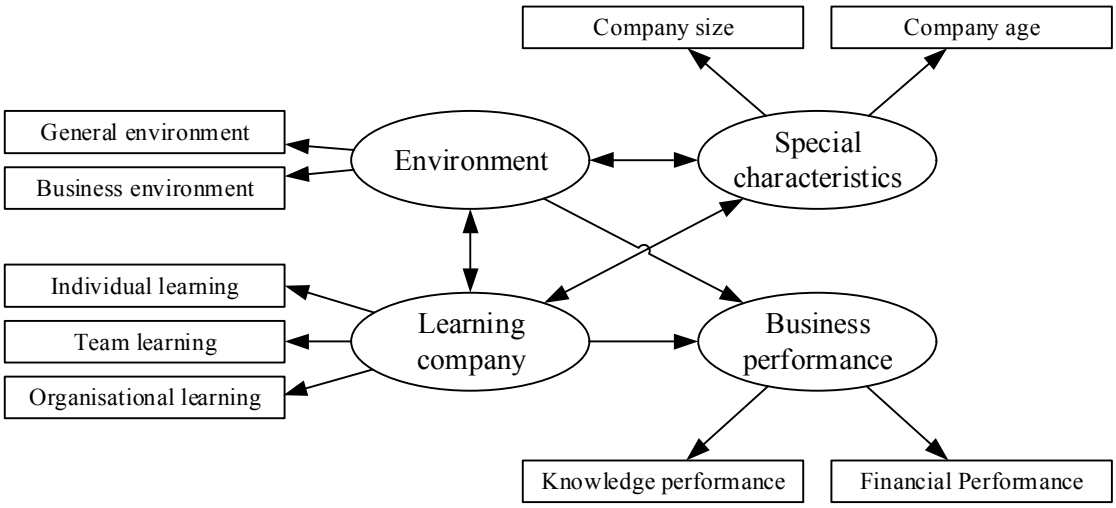
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.704
Bartlett's Test of Sphericity	Approx. Chi-Square	388.116
	df	36
	Sig.	0.000

Source: Results of empirical research, authors 2020

The value of the test is 0.704, which implies the conclusion that the variables selected for the joint conduct of factor analysis are adequate.

Figure 2 shows the graphical results of statistical analysis using the SEM model in which the company environment, specific characteristics of the company, company performance and the concept of the learning company are set as latent variables. In this model, the concept of a learning company is observed through the prism of learning, i.e. the mentioned concept is constructed of three levels of learning; individual learning, team learning and organizational learning.

Figure 2. Graphical representation of the results of statistical analysis using the SEM model.



Source: Results of empirical research, authors 2020

Table 7. The relationship between the environment, company adaptation through learning and performance

Regression Weights: (Group number 1 - Default model)

		Estimate	S.E.	C.R.	P	Label
Performance	<--- Environment	0.501	0.313	1.602	0.109	
Performance	<--- Learning comp.	0.918	0.153	5.986	***	
Size	<--- Spec	0.042	0.023	1.831	0.067	
Age	<--- Spec	1.000				
Fin.perf.	<--- Performance	0.581	0.158	3.667	***	
Fin.perf.	<--- Performance	1.000				
Business environment	<--- Environment	1.000				
Environment	<--- Environment	0.599	0.221	2.714	0.007	
Organisational level	<--- Learning comp.	0.863	0.037	23.419	***	
Team level.	<--- Learning comp.	0.870	0.038	22.772	***	
Individual level	<--- Learning comp.	1.000				

Source: Results of empirical research, authors 2020

The empirical value p <0.001 suggests the existence of a positive, statistically significant correlation between the level of learning in the company and the company's performance, while the model did not establish a statistically significant relationship between the environment and the achieved company performance.

Table 8. The relationship between the concept of the learning company and the environment

Covariances: (Group number 1 - Default model)

		Estimate	S.E.	C.R.	P	Label
Environment	<--> Learning comp.	0.175	0.051	3.430	***	
Specific features	<--> Learning comp.	0.411	0.991	0.415	0.678	

Source: Results of empirical research, authors 2020.

Based on the empirical value p <0.001, a conclusion can be reached that there is a positive connection of the concept of learning company (observed in relation to the three levels of learning that take place in the company) with the environment. This is a positive relationship, which means that the increase in perceived complexity of the environment results in a greater need for learning in the observed companies (at all three levels of learning; individual, team and organizational) which results in more successful application of the learning company concept. In the following sections, the assumption about the positive effect of the company's adaptation to the environment on the non-financial performance of the company should be confirmed or rejected. These performances were measured by the judgment of the surveyed managers. Equidistant 5-point Likert measurement scales were used, and the results are shown in Table 9.

Table 9. The relationship of non-financial performance with individual, team and organizational levels of learning

Correlations					
		Non-financial performance of the company (%)	Individual level of learning	Team level of learning	Organizational level of learning
Non-financial performance of the company (%)	Pearson correlation coefficient	1			
	Sig. (2-tailed)				
	N	133			
Individual level of learning	Pearson correlation coefficient	0.343**			
	Sig. (2-tailed)	.000			
	N	133			
Team level of learning	Pearson correlation coefficient	0.340**	0.824**		
	Sig. (2-tailed)	0.000	0.000		
	N	133	133		
Organizational level of learning	Pearson correlation coefficient	0.429**	0.819**	0.817**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	133	133	133	133
**. The correlation is significant at the level of 0.01 (2-tailed).					

Source: Results of research, authors 2020.

The existence of a positive and statistically significant relationship between the achieved non-financial performance and the achieved level of learning at individual, team and organizational levels can be concluded from the correlation matrix. All three relationships are statistically significant at an empirical level of significance of 1%. The further analysis of the results obtained from the survey questionnaire on perceptual financial and non-financial performance indicators and their comparison with objective financial measures of business performance, obtained from secondary research sources,

examined the confirmation or rejection of the third and fourth hypotheses on the connection between the learning concept and financial and non-financial performance. The average values of ROA and ROE of the financial indicator in the observed two-year period were taken as the indicators of the financial performance of the company. The level of adaptiveness of the company is observed through the prism of individual, team and organizational levels of learning. The relationship between the level of learning and business performance indicators is examined by a correlation analysis.

5. EVALUATION OF RESEARCH HYPOTHESES

The authors used a multivariate method of structural modelling for testing the hypothetical model. The first hypothesis aimed to investigate the relationship between the development of three levels of learning in the company and the performance of the company. It was assumed that with more developed individual, team and organizational learning, the company will be more successful in adapting to its environment or in achieving better performance. The adaptation of the company to the complexity of the environment was measured by: (1) the presence of the concept of learning company within the company (internal learning culture), (2) knowledge of the company environment, (3) learning at individual, team and organizational levels (4) and their strategic integration (structural and human changes within the company in accordance with changes in the environment). According to the results of the statistical analysis, it can be concluded that there is a statistically significant relationship between the development of three levels of learning within the observed companies and the performance as a measure of successful adaptation of the company to the complex environment. Therefore, H1 hypothesis can be confirmed. The first auxiliary hypothesis assumed that a company that adapts more successfully to its environment will achieve better (H11) financial and (H12) non-financial performance. Although the existence of a statistically significant influence of team level learning on the value of ROA indicator of financial performance of the company was found, it can be seen from the results of the correlation matrix that no financial performance indicator is statistically significantly related to the company's adaptation to the environment. Therefore, H11 hypothesis cannot be confirmed. The correlation matrix shows the existence of a positive and statistically significant relationship between the achieved non-financial performance and the achieved level of learning at the individual, team and organizational levels, which confirms H12 hypothesis.

6. CONCLUSION

The results of this research provide evidence that supports the justification of the process of adapting a company to a dynamic environment through learning with a noticeable impact on the company performance. Based on the conducted research, the existence of a strong, statistically significant positive relationship between the three levels of learning in the company and the performance of the company was empirically confirmed. The research also confirmed the results of some studies, that relying solely on financial measures as a measure of business success is not recommended, because they often cannot be good predictors of the overall company performance. Namely, the results of the research show that the concept of applying a learning company reflects more on the performance of knowledge as a measure of business success than on financial performance. The latter is also understandable if we take into account that the foundation for building a learning company is learning. The results of this paper emphasize the impact of learning levels in the company, the necessity to build a learning culture and the application of learning strategies aiming at more successful adaptation to the changing environment of modern companies. The latter raises the question whether financial and non-financial business performance measures should match, i.e. provide the same results. The answer to this question is in any case negative, because in today's modern information age, many companies use new measures of business success such as customer satisfaction, flexibility and productivity. The ability to adapt a company can take various forms, but the key driving mechanism is the transfer of knowledge, information or data from the individual through the team to all organizational levels, which then ultimately reflects on business success. The ability to adapt can only be developed through learning and the achieved effect represents a sustainable competitive advantage of the company.

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