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AGGRESSIVE IMPLEMENTATION OF DIGITIZATION IN THE MODERN BUSINESS

Abstract

The global economic crisis business environment pressures companies to streamline their operations and thus forcing them to significantly speed up the process of digitizing, creating a kind of digital markets. It becomes clear that those who recognize the moment and who are willing to think a modern and unconventional, in terms of innovation, customer and business partners engagement, corporative organization, strategies, business models and the role of technology in their business enterprise, will be those who will be well-positioned in this new market, which will enable them to significant revenue growth. On the other hand, there is a significant business risk of fatal business loss in case of inaction, slowness, neglect and lack of understanding of this very important process in the business.

Keywords: business, digitization, management, marketing, customers.

JEL Classification: M1, M2, M3, L8, O32, O33

АГРЕСИВНО СПРОВОЂЕЊЕ ДИГИТАЛИЗАЦИЈЕ У САВРЕМЕНОМ ПОСЛОВАЊУ

Апстракт

U svetskom poslovnom okruženju ekonomska kriza pritiska kompanije da racionalizuju svoje poslovanje i samim tim primorava ih da značajno ubrzaju procese digitalizacije, stvarajući neku vrstu digitalnog tržišta. Postaje jasno da će oni koji prepoznaju momenat i koji budu spremni da razmišljaju savremeno i nekonvencionalno, na planu inovacija, angažovanja potrošača i poslovnih partnera, korprativnux organizacija, strategija, poslovnih modela i uloge tehnologije u njihovom poslovnom poduhvatu, biti oni koji će da se dobro pozicioniraju na ovom novom tržištu, što će da im omogući značajan rast prihoda. Sa druge strane, postoji značajan poslovni rizik od fatalnog poslovnog gubitka u slučaju pasivnosti, sporosti, zanemarivanja i nerazumevanja ovog veoma značajnog procesa u oblasti poslovanja.

Кључне речи: пословање, дигитализација, менаџмент, маркетинг, потрошачи.

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Introduction

Consumer relationships in digital economy represent a new phase of marketing development in XXI century. The key characteristics are reflected in creating close relations and cooperation of enterprises with their consumers and partners, all via the internet. It was the issue of non-established e-relations that was the main reason for the collapse of those companies that were the first to start doing business in the new, digital environment. In the future, the main challenge for enterprises will be to introduce the concept with the primary objective of achieving high customer satisfaction and their loyalty on the e-market.

The modern achievements made by information technologies are tearing down all space and time barriers. Nowadays, businessmen trade capital on the stock market from their own offices. Working from your office or your home, virtual teams and enterprises, distance learning, e-learning – all of these things represent basic manifestations of the growing trend of digitization and mobility in business, which, to a great extent, reflects onto the relationships between companies and their consumers. In these modern times we continuously adapt ourselves to the new economy trends, namely we live in *digital economy*.

Digital economy is based on electronic transactions via internet or some other electronic channel. Its main characteristics are flexibility, cooperation and high speed of interactivity amongst various entities within the value chain (e.g. interactions made between specific enterprise branches with suppliers and consumers).

The opportunities provided by digitization have been recognized in the business world. Digital technologies can be used for efficient communication with consumers in a direct, multimedia and interesting manner, they can be used for receiving return information from the consumers in relation to their needs, demands, suggestions, and one can gather information about existing and potential clients in order to create more quality contacts and records. In addition to that, digital technologies enable more efficient communication with employees or business partners; they enable joint work on projects of people who all live on different sides of the planet. However, even though by using these technologies one can acquire and distribute a large quantity of data, it is of the most extreme importance for that information to be processed and presented properly, in order to ensure efficiency of business processes. Digital technologies provide answers and tools for this field of work.

Digital Economy

Internet transactions or transactions through some other digital channel are the foundation of digital economy.⁴ The most important features of digital business are speed, innovations, flexibility and team work. The emphasis is placed on new knowledge and skills, which need to be updated daily. The rhythm of doing such business is no easy task, because it requires constant monitoring of new digital trends and demands. Digital client becomes spoiled and it becomes hard to please him. This is why it is required to always dispose with a large amount of data and offer products of superior performances.

Digital economy leads to ability to quickly re-organize company's resources and more demanding consumers. According to numerous predictions at the end of the last

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⁴ Brynjolfsson Erik 2002, *Understanding the Digital Economy: Data, Tools, and Research*, Cambridge, Massachusetts, The MIT Press, 6.

century, the Internet was seen as a tool which will introduce "revolution" into modern business, and it was then that the expressions like "new economy", "digital economy" and "internet economy" were first used. All this indicated that a great deal of business operations will be transferred onto internet platform, as well as that a great number of enterprises will begin to use electronic communication in dealing with their partners and consumers. With the advent of first virtual companies (dot.com) and their rapid collapse, many analysts have gone to extreme and saw the Internet as nothing more than a promotional channel. Namely, the Internet represents the biggest promotional channel, but it can be so much more – very important for companies whose business is based on knowledge and information. Nowadays, many world-known enterprises handle over 80% of their business activities via Internet and, in doing so, they achieve two key advantages: firstly, they reduce costs and, secondly, they offer benefits to their consumers that would not be possible without this channel – Customer Relationship Marketing – CRM is a concept that developed mainly due to the expansion of internet. The opportunity of direct and targeted contact with the consumers which was brought by the internet has resulted in personalization of relationships between companies with their consumers, establishment of database of consumers and monitoring of their activities by the company. Main goals – increasing sales and consumer satisfaction can be efficiently achieved by using different business models. Their further rapid development will provide a more significant role of this concept in modern companies' business.

Digital economy enables market expansion, higher level of transparency of products and more precise targeting of consumers⁵. In the future, digital concept will be much broader and more influential, and certainly comprehensive, in order to be able to respond to growingly more sophisticated demands of consumers. Enterprises that want to do business in digital economy, in relation to consumers they need to have clearly established priorities and systems, in order to do business to the mutual satisfaction. There are numerous examples of successful digital business, and they all have common factors, like: innovation, professionalism, perseverance, tact and commitment to the client.

Digitizing Business in Serbia

In our country, enterprises have a considerable fewer resources than those in the West, which makes the level of digitization respectively smaller. However, it is noted that digital technologies are being used to a great extent, especially in the field of communication and engagement of consumers and business partners. Many companies use the internet in order to present their products and services and bring them closer to consumers, and one cannot ignore the growing consumer's trend of informing themselves through internet regarding their future purchases. On-line trade is still in its growing stage, but there are noticeable developments in that field. According to the research⁶ conducted in 2013 by the Statistical Office of the Republic of Serbia, the majority of enterprises (around 98% of small and 100% of large enterprises) have internet access, and between 80% and 90% of them have their own web sites.

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⁵ Fingar P, Aronica R. 2001, *The Death of E and the Birth of the New Economy*, Tampa, Florida, Meghan-Kiffer Press, 46.

⁶ Statistical Office of the Republic of Serbia 2013, *The Use of Information-Communication Technologies in Serbia, http://webrzs.stat.gov.rs/WebSite/repository/documents/00/01/14/03/PressICT2013.pdf*, 10-12.

When speaking of larger enterprises, the thing that is noticeable is that they use technologies on a more refined level. Gas stations are networked and have enabled remote monitoring, enterprises that deal in technologies process large amount of data with these technologies etc. Also, following global trends, large enterprises employ experts in digital technology, and there have been more than a few new job openings for leadership positions and directorates, or departments for experts in the field of digital technologies, which are an equivalent to the Western position of CDO (explained below). When it comes to policies for employing experts in the field of digital technologies in our country, there exists a significant difference between medium and large enterprises, except in the field of telecommunications, commercial banking and real estate business, where that difference is very small, while small enterprises have a job position for IT expert in small percentages.

Regardless of the current state of development of the economy and entrepreneurship in our country, the management in our country recognizes the benefits provided by digital technologies and that the material moment is the dominant reason the slow pace and limitations in introducing digitization in business processes. However, it is very important for the managers to constantly follow developments in this business segment on a global level, so that they could take advantage of the opportunities by efficiently avoiding traps, problems and deceleration that those who are far ahead of us in digitization have had to fight with. When it comes to conditions like our own, it is very important to choose the most effective and the most rational way, and in choosing strategies, the experiences of those that have already been there is of great value.

Results of the Global Survey (McKenzie)

CEO (Chief Executive Officer – executive administrator, manager or boss) and other senior executives are increasingly more and more engaged in their companies in their efforts to build digital enterprises.

Given that business continues to accept digital tools and technologies – especially in communication with clients, the followers of the "C" level⁷ have, according to recent McKenzie's analysis, stated that they will increase their own involvement in the design and management of digital strategies. The internet survey was conducted from 2nd to 12th April 2013, and it has gathered responses from 850 employees of the C level, representing the full range of industries, regions and different sizes of companies. 8.6% of the examined employees specifically concentrated on the technology.⁸ In order to coordinate the differences in responses, the data was estimated in relation to each examinee's nation and global gross of domestic product. This is of vital importance for the success of digital programs, given that the examinees often state that the lack of senior executive's interest is the main reason for the lack of initiative (for digitization). The respondents equally believe that organizational deployment is crucial in understanding the impact of digitization onto business.

The examinees in the survey were questioned about the five trends of digital enterprises: large amounts of data and advanced analytics, digital engagement of clients, digital engagement of employees and external partners, automation and digital

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⁷ C level relates to slang "C-suite", meaning top managers.

⁸ Brown Brad, Sikes Johnson, Willmott Paul 2013, *Bullish on digital: McKinsey Global Survey results*, McKinsey Quarterly, August 2013, http://www.mckinsey.com/insights/business_technology/bullish_on_digital_mckinsey_global_survey_results

innovation. In the 2012 survey they were asked about three different digital trends: large amounts of data and advanced analytics, digital marketing and social media, and flexible platforms of delivery. In the new survey, great deal of attention was placed on adopting and concentrating of their companies on each of the trends, the possible impact digital technologies could have and do have on their business and the difficulties the companies face while reaching towards their digital goals. It was discovered that, in spite of lack of organization and talent, the employees remain optimistic in views of digital business.

They report that, for example, their enterprises increase the use of digital technologies when communicating with clients and reaching towards them in many different ways. Moreover, rising actions report that their companies give high priority to digital marketing and client engagement. Still, a lot needs to be done: the majority of employees estimate that, in best case scenario, their companies are only a quarter of the way to realize the final vision of their digital programs.

Focus on Customers at the Forefront

The employees respond that each of the five trends they were questioned about has a strategic priority in their enterprise. More than 40% of the examinees state that each of the five aforementioned trends is at the top 10 special priorities or higher, and at least one out of five employees states that each of the trends can be found in top three priorities. Out of them all, the highest ranking trend in client (buyer) engagement: 56% state that digital engagement of clients is at least one of the top ten priorities of their companies, and the full analysis clearly shows a significant improvement since 2012 in developing practices with these trends (Appendix 1). The enterprises have achieved a great advance in using digital technologies in their use of digital technology in the systematic placement of materials electronically, and in setting up personalized or conditional offers available on the Internet.

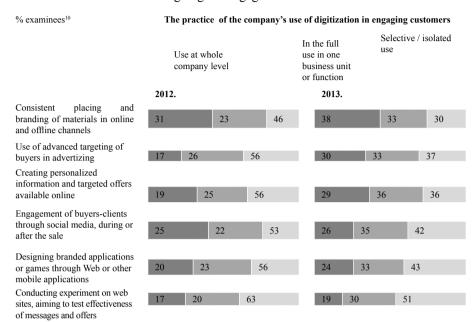
Compared with each other, different enterprises have been much slower in accepting digital approach in engaging employees, suppliers and external partners. In relation to this, the employees state that their enterprises mostly use Internet resources for estimating their employees, for feedback information and for processing data. There are fewer reports of more advanced use, such as product design collaboration and knowledge sharing within the network.

Responses also indicate that the growth in the widespread use of important data and advanced analytics of the company corresponds to the experiences of all kinds of companies, where it is noticeable that employees think that analytics are the priority, and they pay a great deal in developing new tools for its use. What is also noticeable is that examinees have reported on increased use of data in order to improve decision making, research and development processes, budgeting and forecasting (Appendix 2). Moreover, employees claim that their enterprises use analytics in order to further develop. Greater engagement shows that they concentrate their analytics either on increased income or into improving production quality. Reducing costs leans towards the lower priority level.

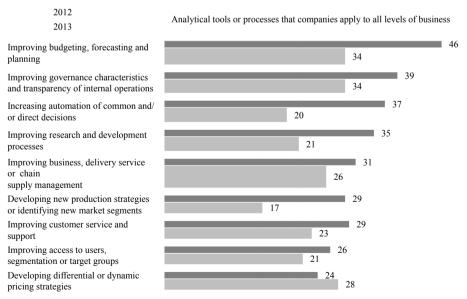
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⁹ Brown Brad, Sikes Johnson 2012, Minding your digital business: McKinsey Global Survey results, McKinsey Quarterly, May 2012, http://www.mckinsey.com/insights/business_technology/minding_your_ digital business mckinsey global survey results

Appendix 1 Increasing Digital Engagements of Clients



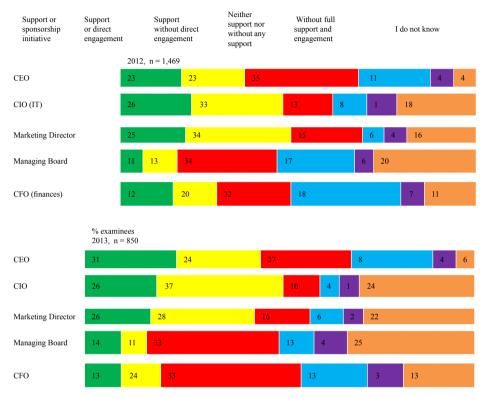
Appendix 2
Use of Analytical Tools Also on the Rise
% examinees



 $^{^{10}}$ The numbers do not add to the total sum of 100% due to rounding. The num,bers were recounted after removing answers to the question "I do not know".

Appendix 3 Directors now more often agree to sponsor digital initiatives than in 2012.

The level of support and involvement in initiative of business digitization per role (job position)²

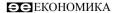


At the question of the next wave of automation of business process, the examinees have all similarly responded that their companies automate a broad range of functions, in order to improve the overall quality of production(for example, by removing obstacles and errors), or in order to build new digital capacities (for example, remote monitoring) in production. Several of them responded that their companies have automated production primarily in order to replace the workforce. With regard to introducing innovations, more than 40% of them state that the companies either merge with existing digital technologies with the existing production, or they modernize operative models of their technologies (for example, cloud computing¹¹). Only 23% examinees stated that their companies conduct digital production exclusively.

Executive Directors (CEO) are Increasingly Involved

Through most of the employees at the C level (or with respect to the most important managers, chiefs or directors), the majority of the respondents claim that it is these

¹¹ In science, the term "cloud computing" is the synonym for computing distribution throug the Inernet and other means.



responsible managing directors who provide support and take active part in the initiative for digitization (Appendix 3). In 2013, 21% of their managing directors have personally sponsored these initiatives, unlike in 2012, when that number was lower – around 23%. This growth illustrates the importance of new digital programs in enterprises' business, as well as the problems these organizations face with: often enough, the CEO is the only executive director who has the mandate and capabilities to manage such diverse program.

Also, 30% of them responded that the heads for digital supervision at executive teams of their companies equally show awareness as to how much these initiatives are important. This result goes with the experience that some organizations have created CDO as the position of executive level with cross-responsibility for the entire digital initiative. Chief Digital Officer (CDO) is an individual who contributes to the growth and development on companies by converting "analog" business into digital business, and supervises operations in the rapidly changing digital sectors, such as mobile applications, social media and related categories, and controls virtual resources. The sign that this new position already has a creative value is reflected in the fact those examinees who have CDOs in their companies, given that they are the ones who already show significant improvement in their relations to digitization, unlike those who do not have CDOs.

Organizational Challenges Continue

Despite numerous technical challenges in implementing digitization, the examinees state that success (or failure) of these programs ultimately depends on organization and management, rather than technical aspects. Directors were asked to reflect on previous initiatives within their enterprises (about one initiative that has worked, and one that hasn't) and then to recognize decisive factors that have prevailed in these cases. Most often, the directors attribute the success of digital programs to managerial factors – managers showing interest and seniors paying attention, inner leadership, good program management and nivelation between organizational structure and objectives – and they name technical review less (Appendix 4). It is interesting that lack of interest from senior management is the factor the examinees most often recognize as the factor which contributes to the failure of an initiative.

Organizational issues may also prevent company's efforts to achieve goals and to fully understand real contributions of digitization.¹³ Like in 2012, directors most often say that poorly leveled organizational structure is the biggest problems their companies face with. This is followed by insufficiently elaborated business processes (such as data experts or digital marketing). As a contrast, lack of infrastructure and absence of good data are now less of a problem than they were in the earlier years.

In those enterprises where organizational structure presents a problem, there is a smaller report on the prevalence of corporate financial progress, which derives from digitization: 31% of these directors claim that their engagement for digitization resulted in fruitful, notable contribution at the final results from the top, or bottom, when compared to 43% of directors who do not face this challenge. At the same time, many examinees are

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¹² Connelly Tim 2012, 'Chief Digital Officer' is the next hot executive title, says Gartner, Beta News, http://betanews.com/2012/10/22/chief-digital-officer-is-the-next-hot-executive-title-says-gartner/

¹³ Gijić N., Jović – Bogdanović A. Reko K. 2014., "Crisis and resource allocation", Niš, Društvo ekonomista, *Ekonomika*, br 2, 93.

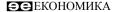
not certain as to how they can measure their engagement: only 36% state that companies in which they are employed have the metric system for monitoring overall progress of digitized program.

High Expectations and Continuous Investment

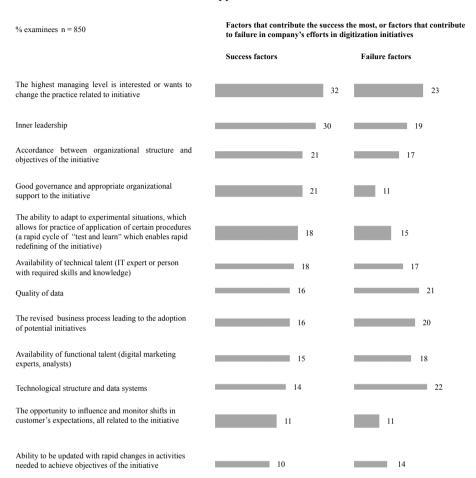
Leaving challenges aside, executive directors remain pushy when it comes to digital business: 65% of them state that they expect growth in company's business and growth in income in the following three-year period, which is similar to results made in the previous five years. Executive directors are far more positive than other managers, and more than one fifth of them state that they expect increase in income through digital business for more than 30% in the next three years. Once asked about their expectations when it comes to top digital business, directors of cooperating enterprises are even more optimistic than those who lead consumer related enterprises, probably due to the increased consumer's expectations, price transparency and competitive pressures they have to handle. While the examinees are aware of the value of all five trends, they hope that greater increase of value will come from engaging consumers in relation to other trends: directors who expect increase of income from digital business attribute most of this increase to digital engagement of consumers (Appendix 5). Amongst those who expect negative impact on company's revenues, the largest number states that it is all related to the inability to respond to frequent changes in customer's behavior and expectations.

The directors say that their companies continue to seriously invest in their digital programs – and that, on average, they expect higher spending in relation to last year's results. There are clears differences in the comparison by region: examinees from North America, for example, say that their companies invest on a level much higher than in other regions, including Europe, where companies usually manage to go ahead with North America (Appendix 6). However, currently around one third of managers say that their companies spend an appropriate sum of money on digital resources and many of them are worried that it just is not enough of investment in these programs.

Still, the examinees think that their companies have a long way to go in order to achieve their goals for digital business. 57% state that only a quarter of a vision for their digital programs has been achieved, and only 40% say that digital efforts made by their organizations have has a measurable effect on their business. Directors say that their enterprises have spent sufficient sum of money on digitization, they report that the impact on their business was higher (60%), as well as those who say that their companies have crossed more than half of the way towards their vision (56%), but they do add that there still is room for improvement.



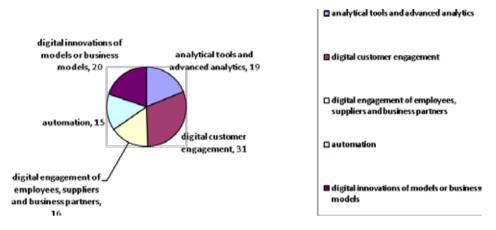
Appendix 4



It is necessary to find true "digital leaders". Leadership is the most significant factor for success or failure of digital programs. The increased participation of the highest level of leadership (C level) is a positive sign, especially establishing the position of head "digital expert", which is the leading indicator for increasing the development speed. This development needs to be continuous if the companies want to meet the high demands of digitization.

Appendix 5

n=568 % of the expected increase of income related to digital business, which can be contributed to 5 digital trends¹⁴



Appendix 6 % examinees per region





 $^{^{14}}$ The numbers do not add to the total sum of 100% due to rounding.

Guidelines

When it comes to digitization, not only is it important to find the right leader, but it is equally as important to establish appropriate goals and maintain a clear and not overly enthusiastic vision. The leaders will have to cross this road carefully, constantly keeping in mind reports on organizational, technical and cultural level.

It is hardly surprising that the participants of the survey – the examinees have expressed their doubts in regards to finding appropriate talents their companies need to find and implement within the process of achieving their "digital" objective. Technical, functional and business skills are of great importance for digital programs. We have already witnessed several companies using the "acqui-hiring" systems (employing entire small enterprises along with their employees, not only their products) in their practice when it comes to high technologies. However, finding and employing talents is merely a part of solution, and regardless of where the talent comes from, further development and retention of quality is equally as important for the retail market.

Conclusion

Consumers' needs and demands dictate the pace and direction that the whole society, and the economy in its scope, will move into. While in the classic business is based on vendor-buyer relation, on which one can build a specific bond of trust and closeness, in the digital eras these relations cease to exist, so attracting and engaging customers, aiming to become successful, and further to increase revenues, which is an incredibly difficult task, and where the digital marketing plays a really important role. Accomplishing this task is extremely complicated, and it consists of combining technologies, information processes, people, resources and processes.

Massive use of the internet has contributed to developing new business technologies and tools. The prospect of direct and targeted contact and addressing the costumers is an exceptional privilege, one that can be used to increase the company's capital. Innovation and tact are also of great importance. There are new experts in the fields of marketing, design, as well as in basic computer sciences and programming. We can freely say that this is an era of new business phases, which has completely new dimensions of work and approach to customers. What is constantly monitored are the needs, changes in trends, and in parallel to them the technology needs to be developed, in this case the digital one, which will be able to satisfy all demanding clients.

Therefore, one of the key areas of the management process is related to informatics – to IT systems. It is not enough to exhaust oneself with analyzing necessary information that management needs in order to make appropriate managing decisions, but it is necessary include information processing by means of information technology. This necessity derives from undisputed premise that information has become an integral part of all economic and sociological activities. Given that the scope of information in management is almost unlimited, the top management needs to define informational system for different hierarchical levels or in specific functional areas (technical function, finance, commerce, human resource development function etc).

The biggest mistake Serbian businessmen make is that they are not trained to use modern technical aids, primarily computers, electronic devices, appliances and other devices. It is a mistake that pays a high price, especially in communications and negotiations with foreign managers. It is difficult to manage business in old school and inadequate ways. It is extremely difficult to be an equal partner in business relations with

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computerized management of developed market economies. Managers from developed economies do not make that mistake. They are equipped with the so-called computer backpack, which consists of: phone, fax, computer, telex, the ability to use e-mail etc. foreign managers simply cannot perform their duties effectively without these technical aids. This way they increase their managerial powers.

McKenzie's research led to conclusion that directors and managers are more and more engaged, and that their companies investing increasing efforts towards the achievement of digitization in business. Directors are satisfied with the market success of their companies, and the way managers handle their own working duties. It is important to find the right talent, regardless of where it comes from, because only with real talent one can achieve real success. Looking ahead, companies oriented towards digitization have great chance of success; they are close to their desired objectives.

The secret of success in this field lies in harmonization of the organization with desired objectives, employing appropriate talented people, capable of properly managing processes, and in investing the right amount of funds. As the key factor of success (as well as failure) in introducing digitization in their companies the examinees name support provided by senior management, given the fact that they are the ones who have the capacities to support, promote and push this process to the very end. The companies that have proven to be very successful have developed a new managing position – CDO (*Chief Digital Officer*), which indicates the importance of the digitization process. Research shows that companies that have introduced this position, and in doing so given proper significance to this process, resulted in significantly higher percentage of digitization than those which have not done that.

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