

Digitalization in Control

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Summary: The development of the economy, business and market globally requires an increasing investment in digitalization, the business of complex processes. Despite the emergence of Eastern European countries, in the future, they need to innovate in digitalization in order to increase the efficiency of business operations, profits, increase productivity and open up new markets. All of this has to do with controlling and auditing the business. The relentless transformational impact of IT redefines the very figure of IT auditing, forcing auditors to rethink established practices, process and calibrate their functions in the digital age. Technological advances are inherent in digitalisation and will undoubtedly change the internal audit, audit of the Court of Auditors, tax control and etc.

Key words: control, audit, business, digitalization, economy.

1. Introduction

There are sufficient definitions of the nature of the control by different authors, where it is mostly regarded as a function of government and most often in the state, such as feedback in the management system, etc.

Control as a function of management must also be seen as a public attitude, which leads to the validation of publicly accepted norms and rules of conduct, to an impact on the behavior of individuals.

The society, passing through certain stages of its development, also creates different structures and management organization. Thus, managerial functions in dynamics express the ability of individual structures to manage and manage. Individual organizations or structures / systems / performing management functions should define development goals, ways to achieve and organize them, and exercise control.

Control as a management function is manifested through five elements. These elements are: setting the development parameters and assessing the behavior of the system; predicting expected status; measurement of the actual status; a comparison between the first three elements and a deviation analysis; preparation of a corrugating program, which also implies feedback in the management system. (Dinev-Control and Regulation in Social Management-2015).

The differentiation and grouping of close or equal control functions differentiates the **different types of controls**.

Depending on where the control function belongs, we have state and public, according to the place of the object and the subject is external and internal, according to the management function is independent, remote, according to the objects of control is material and documentary, as well as newer as diagnostic and prognostic control:

- internal control it is determined by the site of the subject and the subject of control and is when they are in the same system or in close proximity. It is characteristic of the management of an organization or system, being directly dependent on ownership, i. controls the owner. Such is the internal control of the Financial Management and Control Act in the Public Sector /FMCAPS/, the internal audit of the Public Internal Audit Act /PIAA/, the control exercised by the chief accountant and other controls within the organization itself;
- In external control, the subject and subject are in different systems and somewhere determines the hierarchy in the management. External control is primarily state-owned (exercised by state bodies) and is carried out by legally established institutions such as State Financial Inspection Agency /SFIA/, National Revenue Agency /NRA/, the Customs Agency, the Public Sector Audit Office, and so on.

On the basis of what has been said, it is clear that we are talking about controlling all or about FINANCIAL CONTROL, ie control over the activities, processes and operations in relation to the realization of revenues and the expenditures of money, which is done on value monetary parameters. But as a control over the

activities, processes and operations that determine them, it controls both value and tangible and intangible parameters.

In the real and public sector Financial control is of major importance for budget control, customs control, financial supervision, and so on. The financial control at the organization level is led by internal control, internal audit, independent financial audit, etc.

In he last 10-20 years there has been phenomenal development of the Internet and smart phone applications that have changed almost every aspect of our everyday life. We changed the way we book the trip, do our banking, watch TV, keep in touch with our friends, and so on. Drastic changes in the consumer market have not yet fully reached the business market. The digitization of industry has been going on since the 1970s when microprocessor controllers and distributed management systems were introduced for the first time. At the same time, the use of information technology (IT) in general and the Internet in particular has increased especially in the 1990s but has so far been separated from the control room through a firewall and the data flow is mostly unidirectional. What is now commonly called "digitization" can also be called a second digital revolution. This will lead to a much closer integration of operational technology and IT.

Consequently, like the way our daily lives as private consumers have been transformed, the current digitization of industrialization will have a profound impact on every aspect of how the processing industry is doing its business in the future. Many of the expected new digital features, of course, are not related to controls and operations.

To be successful, digitization must be based on trust in data and core systems, processes and controls. New technologies, information flows, roles and relationships in this ecosystem reinforce the need to build trust and risks. All this requires new approaches to building trust, which is clear and should be worked on every day. The comprehensive digitization of the world around us, also known as the "4th Industrial Revolution", calls for a thorough rethinking of both European and national legislation in this respect, such as recent amendments to EU legislation on personal data and forthcoming amendments national legislation. They are important and directly affect all public sector organizations and, of course, internal auditors, which address, in particular, approaches to the protection of personal data and personal integrity. Various solutions, including regulatory, institutional, organizational and technological, are proposed at global, regional and national level in the case of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data relation to the processing of personal data and on the free movement of such data.

The business environment continues to change and grow at an ever-increasing rate, and instead of falling, it seems that these changes will only continue to accelerate. Technology, the increasing use of analytical methods, and the wider scope of information evaluation and reporting are only part of the changes that are taking hold in the accounting profession.

An idea that has emerged in other countries, integrated reporting, without much noise but surely gaining momentum against the backdrop of the growing number of organizations adopting this common reporting framework. This framework includes the inclusion of information on sustainable development, governance and other information traditionally perceived as referring to quality aspects. Auditing is a brilliant example of a field of accounting profession that can evolve in a practical way adding value to both the organization and the accounting industry.

An very important method by which accountants could use business changes to participate more in the decision-making process is to incorporate integrated thinking into their audit practices. Applied to both internal and external auditors, the idea of integrated thinking is a logical and practical continuation of trends that already occur within the profession.

In organizations, the introduction of digital technology has significantly influenced the management of organizations. In the industrial age, power has been concentrated on large, centrally controlled corporations that have been mainly involved in production activities and have met only moderate. Traditional management accounting and control concepts have been created in the industrial era and are geared towards optimizing internal processes by achieving predetermined goals. However, now in the information age, organizations face increased competition due to globalization and digitization, while production is increasingly being allocated to countries with lower wage levels. In this respect, digitization makes it possible to create new management or accounting systems. Due to the functionality of ERP systems that provide real-time and relevant data for business operations, it can allow more efficient use of some management tools.

In recent years, there has been a growing debate about digital transformation, also called digitalisation, digital business transformation or business transformation.nMany people see the word "digital" and immediately adjust if we assume it is an IT thing. However, it is important to understand that digital transformation focuses on the realization that technology is at the core of almost everything that organizations do and strategies need to evolve to exploit the opportunities offered by the pace of technological advancement. Twenty years ago, the Internet was "IT" something that was not well understood beyond the technological mystics of that time. Today,

the operating models of many of the world's most valuable businesses rely on the Internet and all employees must have the expertise to work.

The transformation imperative arises because there are already three significant changes at the same time: changes in demand, changes in the competitive landscape, and changes in technology.

From the existing definitions we can assume that digitalization is a process of converting information on an analog medium (text, audio and video signals, telephone pulses) into a digital form using electronic devices by the method a scan that encompasses the processes of converting analog information to digital. This allows information to be processed, stored and transmitted in a digital environment via computer networks, satellite, Internet, social networks, etc.

In digitization, the information on an analog carrier is converted into a plurality of discrete pixel - pixel - pixel - imageexchangeelement or numerical values using the so - called binary code where the numerical values are represented by two digits 0 and 1. The main objectives of digitization are to preserve analogue information resources and their long-term storage in the form of digital copies, as well as to provide access to these copies through digital devices and networks and to collect them in digital libraries.

Digitization is seen not only as a process of traditional information flows, but also as an environment integrating digital resources, services and professionals with the necessary knowledge and skills at the technology level of that environment related to creation, storage, access and more. use, dissemination, security and protection of information.

Technologies related to the digital environment affect every aspect of our society, economy and culture. New media and communication technologies, such as the Internet, can serve as a tool to facilitate access to cultural content and education. They allow for wider dissemination of cultural and creative content, as reproduction and re-use are cheaper and faster.

In 1953 the "digitization" verb was first used, and today "digitization" means the transformation of analogue information in any form (text, pictures, voice, etc.) into digital (digital) form via electronic devices (scanners, cameras, etc.) so that the information can be processed, stored and transmitted through digital schemes, equipment and networks.

The digital transformation is for reinventing operations. It is about accelerating business models, processes and all sorts of organizational activities to exploit the opportunities offered by different emerging and emerging technologies while addressing changing stakeholder expectations and changing competitive factors. Above all, digital transformation is a changing mindset where leaders challenge status quo and innovation in ways that allow their functions to better respond to the demand of stakeholders and make more effective positive change. We can no longer say how we have done it in the past. It is about how we should do it in order to survive and develop in the future.

The biggest change over the last few decades is the introduction of automated workflows, usually in the form of electronic work papers or systems, and working digitized audit management locations, following the processes in the organization. Many of today's audit management systems offer some interesting features. Digital transformation goes beyond that, creating a new way of thinking.

Looking at control and digitization, we need to know that each of the existing controls, incl. Internal Audit, External Audit / Audit Office and Independent Auditors /, Tax Audit, etc., face many challenges as a result of the digitization of industry and the economy. Generally speaking, control in all its aspects must also be digitized and how much in time, the better. Otherwise, there will be a lag behind the overall digitization process and its efficiency will decrease. Even in some cases, digitized control or audit must overtake the processes of digitization in society and the economy.

In support of the above, in November 2018, the Second International Tax Association Conference on the "Future of VAT took place in Bulgaria. Digital Economy ", which was organized by the association IFA Bulgaria, an official branch of the International Tax Association, in cooperation with Faculty of Law in Sofia University " Kliment Ohridski ". The participants discussed the hot topics raised by the new realities of digital economy and traditional tax systems in EU countries.

Taxes in the digital era will change. There is a need to create new concepts in the field of direct and indirect taxes to cover companies providing services without having a physical presence in any particular jurisdiction. Digitalization and automation, which facilitates business and brings more value and efficiency, places new responsibilities on EU tax administrations. The pace with which Internet businesses and businesses are developing proves to be a challenge for traditional tax systems that are not adapted to the new realities. According to Agustin Migez-Perez, an employee of the Value Added Tax Department of the European Commission's Directorate-General for Taxation and Customs Union, "Digitization itself is not a problem, the challenge is that the number of transactions has grown and operators can be based on everywhere in the world, and this makes tax collection a really difficult process. Businesses outside Europe and beyond EU control create unfair competition for European companies and we will try to create a level playing field for businesses."

Sophie Chatel, head of the Tax Settlements Department at Organization for Economic Cooperation and Development /OECD/ Center for Taxation and Administration, presented the organization's position on the

digitization of the economy, with the theme of the changes in the tax sphere being on the agenda in all countries where business is automate and digitize and where the current trends for non-existent business boundaries define the new status quo.

When we talk about control and digitization, it is unfortunate to note that Bulgaria, unlike the implementation and development of control, lags behind in digitization in almost all respects, with only good results in internet coverage, although the data from McKinsey, to show that they are far from being needed to turn the country into a leader in Eastern Europe.

Bulgaria is at the bottom or just ahead of Romania in accessing and using a range of digital services among ten EU countries in Central and Eastern Europe, and in public services the difference with most EU countries is several times. / These conclusions are part of the Digital Challengers report of the McKinsey consulting firm, published last year. /10 countries with accelerated digitization have been studied: Bulgaria, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, Hungary, Croatia and the Czech Republic for the period ending 2025. McKinsey considers them "digital contenders" show strong growth potential in the "digital economy", competing with the group of relatively small countries with a very high degree of digitization. " These are the so-called. "digital leaders" such as Belgium, Denmark, Ireland and others. To reach the "big five" - Germany, France, Italy, Spain and the UK, where the share of the digital economy (6.9% of GDP), while the "leaders" like Sweden (9%).

Examples of lagging behind are the digitization of public services and their use online by residents aged 16 to 64, as well as Eurostat data, only 5% of the population of Bulgaria between 16 and 74 years of age used online banking 7 percent in Romania, 40 percent in Poland, 57 in the Czech Republic, and 61 in Latvia, the average for the region is 39 percent). With 11%, Bulgaria is the last to use online travel and accommodation services, with 12% in Romania and 48% in the Czech Republic. The same for healthcare providers Bulgaria (10%) is penultimate - in Hungary it is 7% and in Slovenia 27%. Only the results for the use of online social and professional networks are near the middle (in 7th place with 50% as in Poland and 66% in Hungary).

A Fourth Industrial Revolution is set to trigger seismic changes and create many new jobs, McKinsey notes. Therefore, preparations to avoid a shock on the labor market should begin immediately. This can happen with the introduction of e-governance, with changes in the education system and incentives for lifelong learning, as well as with digital tools that make the labor market accessible to all.

The Fourth Revolution Tools as an Internet of Things will benefit. Business, for example, needs to introduce more digital tools and use digital solutions to raise new customers and better access to regional and global markets. Legislative and executive authorities should find ways to promote the digitization of the public and private sectors, re-qualification programs and additional qualifications and the ecosystem of start-up companies.

The aforementioned duke is largely confirmed by the results of a digitalization survey in Bulgaria conducted in 2018 by Siemens Bulgaria and the German-Bulgarian Chamber of Commerce. In today's economic conditions and realities, more and more companies are facing new dynamic business models, increasing competition in the market and being forced to seek and develop new strategies for development. Digitization of processes as a whole and later control will play a key role, as digital technologies will be the driving force for success.

The results of the survey clearly show that **digitization is not an unknown concept** for companies in Bulgaria. A significant proportion of the respondents - 42.1% - said they were fully aware of the concept, and **more than half** said they were familiar with it / well aware of it. A clear minority of **participants acknowledge** that they have only a partial understanding of the concept of digitization. None of the respondents said they were completely unaware of the concept.

The results show that Bulgarian companies have a clear vision of what benefits they can expect from the introduction of digital technologies. Higher expectations (89%), improved planning (89%), increased competitiveness (89%), and improved data collection and analysis (88%) are attributed to the optimization of resources (89%). Improved service (86%), higher quality (79%), new business models (76%) and business process transparency (76%) are also among the main motives of business on the road to digital transformation.

Although digitization is becoming a mandatory part of business in Bulgaria, there is still a long way to go. The survey results clearly show that digitization is not an unfamiliar concept for Bulgarian companies. But although most companies in Bulgaria are aware of the potential for digitization to grow and expand their business, many of them recognize that they do not have a comprehensive digital strategy.

Digitization is mainly perceived as a way to optimize resources, processes and interactions. Most companies in Bulgaria see digitalisation as a way to optimize resource use, automate their production, improve their interaction with customers and suppliers, and integrate their processes. At the same time, the business in Bulgaria has no high expectations of increased profits and a reduction of the ecological footprint as a result of digitization.

Digitization does not mean losing jobs, and / or is it, but digital competences will be increasingly sought. Businesses in Bulgaria do not expect any particular shocks and job losses due to digitization. At the

same time, companies have a clear vision of what kind of staff in this field they will need in the coming years to develop and implement new business strategies, including the development of digital business models and digital marketing.

Insufficient qualification of employees prevents further digital transformation. The qualification of the employees and the size of the investments are a major obstacle for the Bulgarian business in terms of the further implementation of digital technologies and processes. This is shared by nearly half of respondents.

2. Instead of concluding

Technological progress is inherent to digitization and will undoubtedly lead to numerous and interesting changes in the internal audit, the Court's audit, independent audit, tax control, etc., and why not controlling.

As digital innovation and digitization are accelerating forward in the future, the audit profession is forced to follow them. This is not a question of whether "the auditor needs to change, but rather" when "or" how fast ".

References

- 1. Dinev M. Control and Regulation in Social Management 2015
- 2. "Digital Challengers" report of the consulting firm "McKinsey" -2018
- 3. Nwankpa JK (2014) Digital business environment and audit quality. Int J Account Res 2: / 2472-114X.1000114
- 4. MF Control Methodology and Internal Audit Directorate Regulation (EU) 2016/679 EU
- 5. Sean Stein Smith-Audit in the field of Integrated Thinking- Audit No. 2/2017
- 6. Aalto University-Implications of Digitalization on Management Control-2015