

BUSINESS INTELLIGENCE MANAGEMENT AND ITS IMPACT ON ECONOMIC SECURITY

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Abstract This paper describes the influence of business intelligence management and economic security at all levels of the business sector. The paper reflects the analysis of various data, literature reviews and organisational statistics. Based on the data comparison, the paper provides formulas, indicators and recommendations to bring managerial levels closer to business intelligence management. In the modern era, states' top priorities are areas of political power and balance, diplomatic influence and mediation, guarantees of economic growth, military and defence policies. The main principle is not to stagnate in the optimal phase of state but rather to keep up continuous improvement.

Keywords:

business intelligence, economic security, organizational security, management, security measures

1 Introduction

The global digital revolution has led to growing demand for information, which is a precondition for further corporate success (Medhat, Khedr & Haggag, 2013). Gathering and managing information remains the main task for managers to this day. Business intelligence is a proven analytical tool that is widely used in both organisational security and marketing strategies (Djerdjouri, 2019).

The impact of business intelligence management on economic security has yet to be explored. Modern corporations are still trying to use a proven and classic method that is not dynamic over time (Azeroua, Business Intelligence, 2018). Managers need to understand that implementing business intelligence in organisations is not only a key guarantee of corporate success but also of economic growth and economic security (Coissard, Delhalle & Seigle, 2010). In the countries of the post-Soviet space, the afore mentioned direction has not been scientifically researched. The study of business intelligence management requires a constructive approach and a detailed description in order to be adequately represented in scientific circles. Georgia and the Republic of Lithuania can become pioneers in this regard. Although corporations in Georgia are trying to move to an innovative management model, the basic elements of organisational directions are unexplored. Companies in the Republic of Lithuania are in a leading position in this regard, as managerial self-motivation and organisational readiness are higher.

The modern world has begun reformist approaches to information access, i.e. the formation of public institutions, changes in economic policies and technological innovations.

Several theories objectively explain the commercialisation of intelligence and the formation of economic security. To counterbalance this, it is necessary to turn to the second theory, according to which post-communist privatisation was envisioned from the outset as reaching beyond the economic sector and into the core of the secret control apparatus (Los, 2005).

2 Intersection between economic security and business intelligence

At present, the main priorities of management are internal organisational power and balance issues, the impact of marketing and strategic moves, service providers and financial stability guarantees, investment and market policies. The solution to these problems is not to stagnate in the optimal phase of the quality of the organization, but rather to constantly develop and make progress. The main task of this paper is to establish the main links between business intelligence and economic security and also to determine whether it is necessary to scientifically reflect the great role of management for the proper functioning of both systems.

There are differing views on the relationship between business intelligence and economic security. One group of scientists believes that incorrect economic security systems have played a crucial role in the origin of business intelligence, and all the illegal actions associated with it are the result of shortcomings in economic security (Bodislav, 2016) (Negro & Mesia, 2020). The second group of researchers believe that business intelligence is derived from the management of a company (Clary, 2018) (Nourani, 2020). It has such an impact on the economic security system that the formation and specificity of the latter are related to the intensity of business intelligence.

They argue that there is no connection between business intelligence and economic security or, if there is, there has only been a small change in the 21st century. The aim of this paper is to establish the validity of the reasoning, which is both a rational view of the grains, i.e. economic security and business intelligence express symbiotic integrity and vice versa.

From the outset, it is necessary to understand the two uses of science, economic security and business intelligence.

2.1 Economic Security – definition and its relevance to management

According to the British scientist Barry Buzan, ‘economic security is closely linked to the corporate resources of private organisations operating in the state’, and the blurred vision of this union obscures the economic security of post-Soviet countries (Buzan, 1984). According to other sciences, economic security is linked to a state’s defence capabilities, social consensus, environmental protection and equal

development within a country's regions and other territorial-administrative units (Tetruashvili, 2006). At its core, the task is to eradicate poverty by guaranteeing the creation of internal and external stability. Simply put, this direction is a set of complex strategies, the successful implementation of which contributes to the role of the country in the region and the international arena. Economic security is not clearly defined in terms of prospects, however, two stages of escalation can be distinguished – short-term and long-term. In the short term, significant economic development values are considered, e.g. buildings, roads, infrastructural patterns, etc., while long-term ones are more socio-political, e.g. evidence-based policy, future development strategy, crisis management and/or prevention etc. It is clear that the share of the state in the formation of economic security, as well as the share of the higher echelons of the multi-sector, must be colossal (SMELIK, 2020). According to the International Labor Organization, economic security consists of basic social security, which is determined by access to the basic needs of infrastructure, health, education, information and social protection, and corporate security.

If corporate management is applied to this theory, it can be formulated as follows: an educated and qualified staff carries less risk of business intelligence, and it is the starting point for corporate security. Below the author of this paper discusses the different variants and types of business intelligence, although it should be noted that based on the above theory, a strong pillar of business intelligence is erudite employees in management. From the various aspects included in this paper, the impact of business intelligence elements on the economic security system can be discussed, although consideration has also been given to how the above theory can be applied in a managerial perspective.

2.2 Types and understandings of business intelligence

The scientific definition of business intelligence is still being refined. In terms of content, business intelligence is a set of managerial data, a kind of information system that provides past, present and predicted information about the company and its environment. Business intelligence can also use other data sources, in particular to analyse and evaluate the corporation environment (Skyrius, 2020). Business intelligence management enables a corporation to overcome major problems and challenges that classical analytical forms cannot match. These challenges may be related to a company's marketing strategy, financial fluctuations, internal organisational security and the growth trends of loyal customers (Howson,

2007). The product of business intelligence is to combine data from different sources and identify key elements that are impossible to assess from individually considered sources of information. Business intelligence can be considered as part of information technology, however, in most cases the latter is a broader analytical mechanism in which all the management links of an organisation are involved (Laursen, 2016).

The historical perspective of business intelligence management dates back to the second half of the 20th century and has become part of managerial strategy and the decision-making process. Unlike the speed of other technological development, business intelligence has long been established as an independent integral. According to experts, the more the integration of the three main components of management into a business intelligence application, the more in demand it will be in the latter market. These three components are the organisational value system, the utility component, and the management geometry that characterises a particular corporation. This reinforces the assumption that business intelligence will become an integral part of management in businesses of all sizes.

Thus, business intelligence and economic security are two interdependent elements, therefore the starting point for management is to find the intersection points of the two disciplines mentioned above. Below a systematic analysis and well-known practical examples are described in order to shed more light on the impact of business intelligence on the economic security model. Statistics show that the share of spending on business intelligence is directly proportional to digitalisation. In this paper, the author discusses financial models that are effective or ineffective in financing business intelligence and organizational security.

3 The Main Theoretical Findings and Analysis of Business Intelligence Components

Against the background of the aforementioned information, the author has provided conclusions and prospects to solve the research task. Business intelligence and economic security are the latest disciplines, however, a thorough study of these disciplines provides an effective management system that produces two results – a corporate system that will be unique, and from a state point of view, business intelligence will have a positive impact on the economic security system.

In studying business intelligence, the following types of managerial problems are encountered. From time to time, business intelligence becomes part of intellectual property that cannot be seen as innovative. There are two reasons for this. Firstly, companies do not want to make the system public because it puts them in a strong position in the market, and secondly, in the event of failure, the company's prestige is not compromised.

Academic circles refrain from examining the above two issues from one perspective, as there is no evidence-based corporate policy and therefore no research that rationally explains the positive or negative impact of business intelligence on economic security.

Thus, by systematic study of business intelligence, general principles and indicators have been obtained that can measure the business intelligence system introduced in a company. Additionally, against the background of the information provided, the research may explain the shortcomings and dimensions of the various business intelligence systems.

Business intelligence management refers to each employee at the organizational level. From the example discussed, it is possible to model how business intelligence can be implemented in a company. To this end, there are two main types of data – human resources as analysts as the executive of business intelligence, and the system that provides the processing of specific information (White, 2019) (Power, 2021). When looking at historical and modern data, the two aforementioned factors are equally effective, although the digital aspect is system-oriented.

The historical perspective shows that business intelligence was created as part of the military sector to assess and prevent risk. Its main task was to control and protect information for the security of local and international assets (Watson, 2009). The formation of business intelligence was motivated by the influence of Hakluyt, which can also be conveyed as a theory of modern understanding. Hakluyt was a pioneer who was not the first to receive information but rather to process and draw conclusions (Herzog, 2008).

Over time, business intelligence has transformed into the private sector and the classification of functions has become more diverse (Deraman, Yahaya, Abai & Hamdan, 2019). More precisely, while in the classical category its main task was to protect and control information, in the modern form, elements can be found such as strategic testing, knowledge management and economic security.

The strategic control structure is built on familiar management matrices (Herzog, 2008). The cycle begins by identifying information needs, gathering tailored information and disseminating information. In the middle phase of the cycle, the SWOT matrix, the Porter's five, the structural analysis method and the reverse and prospective analysis methods are used to verify the information (Maharjan, 2019). It is important to note that strategic control is a large-scale process that is not static. Companies from developing countries, such as Georgia and the Republic of Lithuania, can create a strategic control document in the short term, where business intelligence is a monthly report.

Reputation management relates to business intelligence, both in terms of software and human resource management. It includes the creation of an algorithmic axis, as well as the control of documentation, the recording of inter/intrapersonal case management, and the influence of managerial links. Business intelligence can also assess the risks that the collapse of a company's reputation could pose (Anušić, 2021). For example, if a company was to categorize and prioritize risk events for its reputation, the business intelligence function would be to calculate a specific threat.

There are different approaches to the economic security factor. First, it should be noted that business intelligence management economically studies tangible and inviolable factors. Based on the experience of the United States, the formation of economic security in a company is based on several indicators – security audit, security plan, independent security staff and high awareness of employees (Yu & Chang, 2020).

At present, business intelligence management is an optimal tool for overcoming challenges for medium and large companies. For example, Coca-Cola attempted to document human resources, which increased significantly during operations, and managerial resources were allocated through barriers. After the transition to the business intelligence platform, the form of internal communication was resolved – 260 hours per year were saved (Software, 2020).

4 Conclusions

Based on the above, it can be concluded both the external players (direct competitors), as well as internal players involved (employees) can be a threat to business intelligence. Both are aimed at the destruction of the company's position on the market and, in some cases, the propaganda produced by the local government, which serves private interests, can be considered as acting under the cover of direct competitors. This cannot, however, be a grounded opinion, as it is necessary to accept the fact that both internal and external factors are used to influence companies through different tactics. Therefore, proportional factors should be considered when implementing organizational business intelligence management policies.

The development of artificial intelligence and its proper formation in a multi-sectoral environment contributes to the strengthening of information security. With proper algorithms and programming, the system itself will be able to identify threats motivated by human, technological and external factors. Even the most effective business intelligence structure requires consideration by multiple players (Somasekaram, 2013). Accordingly, the creation of legal bases and circular systems should be based on the principles of cooperation, and the advantage of this is that the threat will be identified from different perspectives (Ahishakiye, 2018). Different sectors of developing countries need to take care of knowledge specialization. Personnel with high visibility and low probability of risk are directly proportional to the challenges facing information security and are thus mutated, therefore each aspect must be considered in order to respond quickly and effectively.

Based on the above facts and analysis, it can be said that business intelligence largely involves the analysis of data to generate information, while it is possible to draw clear parallels between business intelligence management and information management. From an analytical point of view, business intelligence management clearly distinguishes between data analysis and data science as a whole. As was learned from the Coca-Cola case, business intelligence primarily relates to analyzing, processing and describing past data, while data science is a predictive mechanism. Simply put, business intelligence creates a picture of corporate data that clearly identifies key risks and threats. Based on this, data science makes financial and strategic predictions.

In terms of information management, business intelligence creates a product and valuable information that is delivered to the appropriate management link.

The main theoretical findings can be divided into two directions – academic and professional. As can be learnt from this information, business intelligence is still in the process of refinement and development. Since there is a lack of research in this area, academic circles should be interested in this area.

There is a lot of room for further research in the area of business intelligence management, which will allow a better understanding of what practices are required to have a positive impact on economic security. Business intelligence is increasingly in demand and is largely based on innovation. In this regard, the corporations of the post-Soviet space countries can become pioneers, which will be spread at the regional level on the principle of the domino effect.

The second finding is the assimilation of economic security with business intelligence. Each component of economic security is reflected in the impact of business intelligence management. For example, since one of the indicators of economic security effectiveness is revenue security and innovation, the practice of integrating business intelligence allows transactions to be conducted in a secure environment and data to be processed quickly.

Companies in market economy countries always try to manage production efficiently, i.e. to increase profits with less resources and costs. If the principle of the economy is the balance of the demand and supply chain, business intelligence allows companies in the state to measure the economic environment and become indicators of the macroeconomic framework.

Business intelligence is not only a tool for organizational analysis, but also a source of security management. Economic security also includes transactional security, which business intelligence can provide.

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