

IMPROVING THE MODERN MANAGEMENT SYSTEM THROUGH THE USE OF INFORMATION TECHNOLOGIES

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Abstract: *This paper represents a theoretical-methodological foray into the possibilities of improving the management system using modern information technologies. In a post-pandemic context, the managerial system of enterprises needs a revitalization, a reorientation towards the insertion of new information technologies in its activity that would help the management of companies to perform their managerial functions efficiently. The purpose of the research is to identify solutions to increase the efficiency of the management system using the most modern information technologies. The research methodology focused on the use of several research methods such as: analysis, synthesis, induction, deduction, abduction, scientific abstraction, documentation. Through the lens of these methods, we had the opportunity to outline relevant conclusions and obtain relevant results.*

Key words: *management, management system, information technologies, modern management, improving the management system.*

JEL Classification: *M10, M13, M15.*

1. Introduction

In the context of the pandemic crisis, of the major disruptions felt in the managerial system of companies, there is a need to identify new competitive advantages that would help the managerial system to adapt more easily to the new challenges, to the new requirements imposed by the new post-pandemic context.

Consequently, a pillar in increasing companies' adaptability to the market consists in the use of information technologies, which help companies to adapt their performance to the new demands imposed by the changes that have taken place. In order to overcome the challenges brought by the pandemic crisis, the need to implement new information technologies in the modern management system has become more important and has become a lifeline, especially for SMEs.

For these reasons, this paper aims to identify the most relevant information technologies applied within companies, aimed at streamlining the activity of businesses that wish to achieve increased efficiency and performance in the activity they carry out.

2. Contents

The management system is a success lever designed to make the activity of companies more efficient using the most relevant management methods and models that would ensure companies a clearly superior performance compared to its competitors.

Researching the specialized literature, we can mention that managerial studies abound in research focused on defining and identifying the most relevant methods and techniques that can be applied in various contexts.

The researchers S. Robbins, M. Coulter, R. Montana, at the end of the 20th century, point out the following definition of management: "management coordinates activities so that they are completed effectively and efficiently with and through other people". The authors emphasize the role of management to achieve managerial efficiency by animating and coordinating other humans (Robins, Coulter, Montana, 2016). The same idea is also found in the works of J. Naylor, 2004, who evaluates management as "the process of achieving organizational objectives, by attaining efficiency, effectiveness and equity, in the

context of limited resources, tasks with and through other people” (Naylor, 2004). From the definition offered by the researcher Naylor, we highlight the special role of management in forming, evaluating, and ensuring the efficiency, effectiveness, and equity of the enterprise, with and through employees.

The researchers A. Hitt, S. Black, L. W. Porter, 2012, point out that “management is a too complex concept for a precise definition” (Hitt, Black, Porter, 2012). According to the authors’ opinion, it is observed that the management process is a complex process, which includes several activities that must be carried out with maximum precision and in a timely manner in order to achieve organizational performance. The same idea is cultivated by R.W. Griffin, 2013, who reiterates that “management includes a set of activities (including planning and decision-making, organizing, leading and controlling) directed at the resources of an organization (human, financial, material and informational), with the aim of achieving organizational objectives in a efficiently and effectively” (Griffin, 2013).

Five years later, researchers A. Kinicki, B. K. Williams, in 2018, mention that “management consists in getting work done via others” (Kinicki, Williams, 2018).

The Academy of Management, 2018, in its attempt to define management, does not provide its own definition, but only refers to an external online dictionary on its website where management is “the act or manner of managing; manipulation, direction or control” (Academy of Management, 2018).

With the passage of time, the views of management researchers are becoming more and more dispersed, as Boddy, in 2017 mentions “management is a universal human activity in domestic, social and political environments, as well as in organizations” (Boddy, 2017). Indeed, the term management is widely used in everyday language and even in the organizational world and applies to areas as diverse as data management or conflict management.

In modern theory, there are many definitions of the term “management”:

- achieving results through human effort;
- creating and maintaining an internal environment in a company where they can work in efficient and effective individual groups to achieve common goals;
- the process of planning, organizing, leading, and controlling to formulate and achieve objectives based on human work and the use of resources;
- the process in which managers create, implement, and manage the organization through a systematic, coordinated, and cooperative human effort.

According to our opinion, management represents a complex system of relationships that are established between the company’s subsystems, in order to achieve organizational objectives, through the lens of the efficient use of resources in order to ensure organizational performance.

At the core of our definition is the approach to management as a system, which involves an integral approach to the study of the relationships of the subsystems of an organization in order to organize the achievement of the established objectives. Therefore, this requires an integrated approach that could reduce the conflict between different subsystems and the modification of the objectives of these subsystems in order to reach the optimal solution of the problems that may arise in the achievement of the main objectives or in the operation of the whole system.

The systemic approach of managerial science derives from the need to achieve organizational performance, which can only be achieved by animating and coordinating the activities of all elements of the subsystem.

The managerial system can be shown schematically in Figure 1.

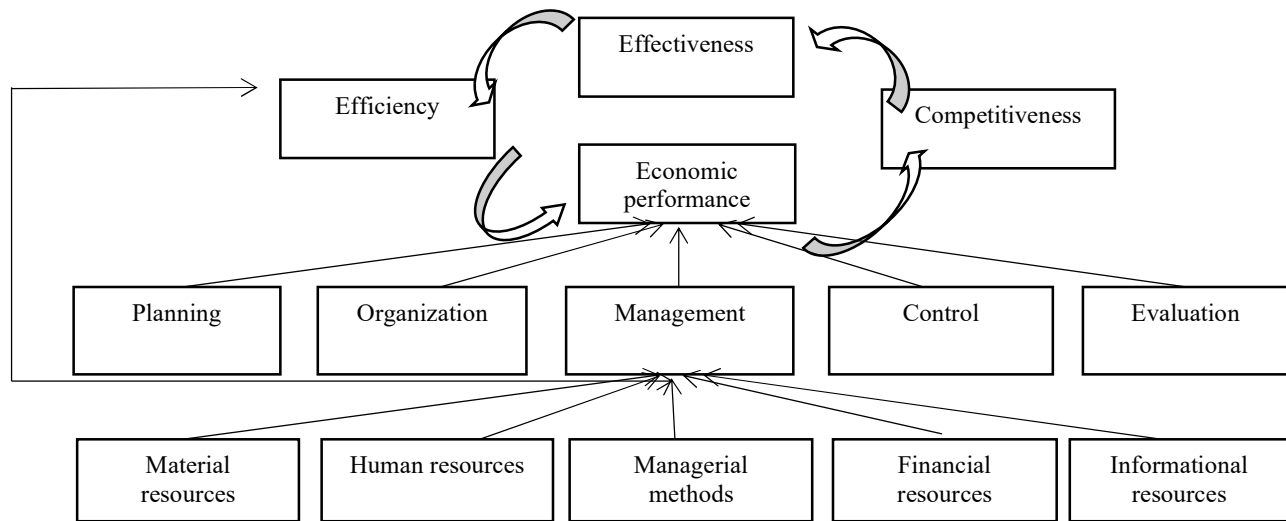


Figure 1. The Systemic Approach to Management

Source: elaborated by the author

Analyzing the management approach as a system, we can point out some defining aspects:

1. Management involves the correct management of resources in order to achieve organizational performance at the level of all subsystems;
2. Management involves the successful performance of managerial functions in balancing all subsystems;
3. Management focuses the team's efforts towards achieving the efficiency, effectiveness, performance, and competitiveness of the entire system.

In the context of the research carried out, we can identify the efficiency factors of the modern managerial system that we have shown schematically in Figure 2.

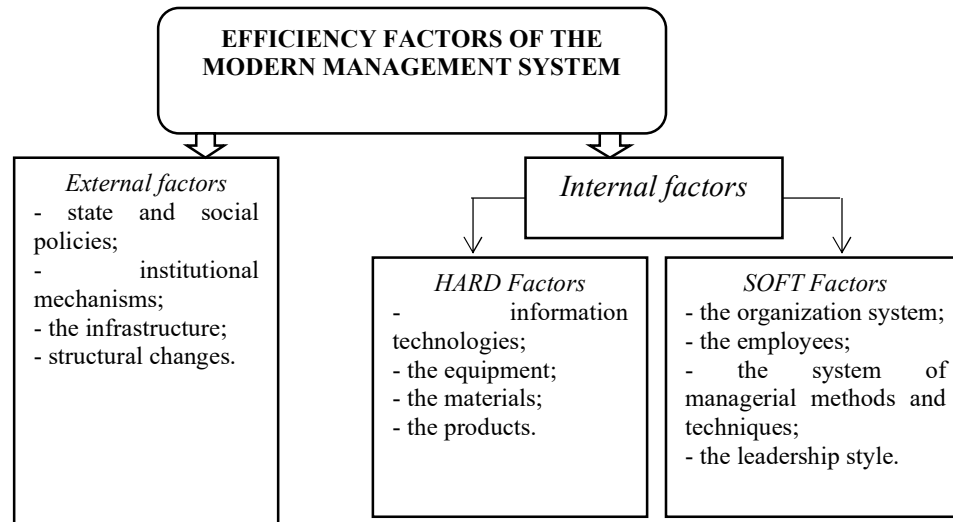


Figure 2. The Efficiency Factors of the Modern Managerial System

Source: elaborated by the author

In conclusion, we can mention that management is a complex field, which has registered a multitude of approaches, which have helped it to establish itself and acquire new dimensions and spheres of applicability. Drawing a chronological map of the

approaches of researchers in defining management, we can mention that over time researchers identified management by means of the managerial functions that a manager performs in his activity. At the same time, another characteristic of management is the achievement of organizational objectives through other people, in terms of performance and competitiveness.

Every manager tries to develop a modern management system, focused on competitiveness and sustainability. The factors that contribute to the formation of the efficiency of the modern management system are: external factors - rendered through the prism of macroeconomic policies, institutional mechanisms, infrastructure, structural changes. In addition to external factors, an important weight is given to internal factors, rendered through the prism of “hard” factors – that is, of technologies, equipment, materials and products used, but also of “soft” ones – rendered through the company’s organizational system, employees, managerial methods and techniques, leadership style.

The important changes resulting from the information technology sector have become the source of basic changes in business management. The most important changes are rooted in the fact that technology has allowed managers to highlight the necessary information and monitor the work of their employees (Oprea, Airinei, Fotache, 2002).

In recent years, research in the field of management amplifies the importance of information technologies for business success.

In 1998 research carried out by the Nolan-Norton Institute showed that the use of information technologies in management is reflected by the quality of the new managerial methods applied (Pascari, 2021).

According to D. Danaiata, 1998, information technologies offer several advantages for the business world, such as operating speed, stability, and data compatibility, promoting organizational efficiency and improving productivity, controlling internal processes (Danaiata, 1998).

At the same time, researchers D. Oprea, D. Airinei, M. Fotache, 2002, appreciate that information technologies remain a tool that makes changes in work, integrates organizational duties, and contributes to stimulating organizational competitiveness (Oprea, Airinei, Fotache, 2002).

The use of information technologies can reduce transaction costs through electronic data transactions and shared databases, can eliminate intermediaries in organizational processes. Using computers and communications equipment, data, audio, images, sound and even video can be shared.

Schematically, the modern management system is shown in Figure 3.

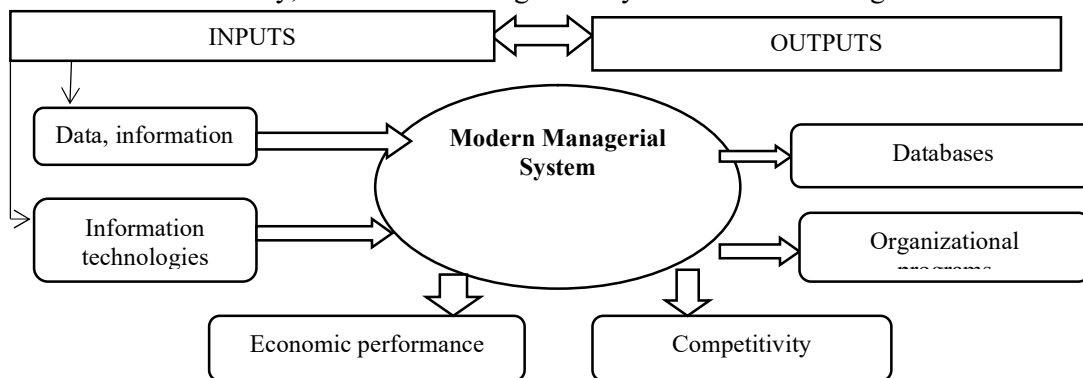


Figure 3. The Role of Information Technologies in Achieving Economic Performance
Source: elaborated by the author

According to the data in Figure 3, we can see that companies that apply information technologies in business, achieve a high level of economic performance and tend to achieve competitiveness by forming strategic competitive advantages.

The main information technologies that can be applied in enterprises differ from one company to another, from one country to another. However, the most important information technologies are shown in Figure 4.

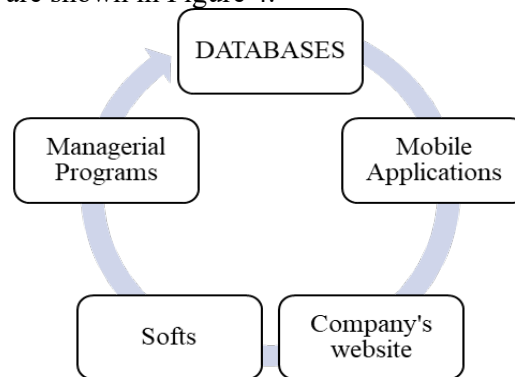


Figure 4. The Main Information Technologies Applied in Management

Source: elaborated by the author

The most modern information technologies that are applied by companies all over the world are: mobile applications, software, programs, databases, interactive websites, etc., which help companies to anticipate the wishes of customers, apply relational management and become competitive enterprises.

Currently, national economies are affected by rapid changes that synergistically impact all subfields of activity. These developments are due to the paradigm shift from a production-based economy to an information-based one.

On the other hand, the globalization of business involves major changes in the activity of companies. National markets have been influenced by foreign and international (multinational) enterprises. Commercial companies, trying to survive and maintain competition with other countries and companies, must introduce rapid changes in managerial paradigms.

A useful tool that has been applied within companies is information technology that has modified the managerial system of enterprises by infiltrating a new managerial tool focused on achieving success and streamlining processes.

Undoubtedly, managers have a fundamental role in shaping the development approach of organizations where information technologies have proven to have a decisive impact on business success and in achieving organizational performance.

However, it is clear that IT, by creating a wide spectrum of information that records the smallest events and information, helps managers to plan and take decisions by analyzing updated data, to make a bright future for themselves and their organizations.

Information technologies allow managers to quickly control and coordinate the performance of the organization with their management through rapid feedback and solidarity, using the rapid information process. In general, getting information technology right and accurate seems to be difficult. In 1980, the computer was the only technology that was identified as information technology. Nowadays, IT has become like an umbrella that includes a group of equipment, services, functions, and basic technologies.

3. Conclusions

In conclusion, we can note that modern companies, which want to stay on the market, are required to resize their management system through the prism of:

- the introduction of new information technologies – company managers, in order to strengthen their position on the market, must increase the application of information technologies that will help them reach a higher level of performance;
- the application of the new managerial models – in order to overcome the negative effects of the pandemic crisis, companies must review their managerial methods and models in order to adapt them to the new demands imposed by the new context;
- the intensification of the exploitation of SOFT factors – in order to achieve managerial efficiency, there is a need to intensify the SOFT factors of the managerial system that will contribute to the efficiency of achieving organizational objectives through the effective use of human potential;
- the implementation of modern management methods – the application of modern management methods will help companies to collaborate effectively with all their stakeholders and to overcome the challenges imposed by the pandemic.

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