

MANAGEMENT SCIENCE VERSUS BUSINESS PRACTICE – ANALYSIS OF SELECTED ASPECTS OF THE PROBLEM

Henryk DŹWIGOŁ^{1*}, Dariusz DŹWIGOŁ²

¹ Silesian University of Technology, Faculty of Organisation and Management, Zabrze;
henryk.dzwigol@poczta.fm, ORCID: 0000-0002-2005-0078

² Bumech SA; dariusz.dzwigol@bumech.pl, ORCID: 0000-0002-2273-2865

* Correspondence author

Purpose: The aim of the paper was to determine whether the purpose of the discipline, i.e. management science, is to support the practical aspects of economic life.

Design/methodology/approach: In order to find answers to the said research questions, 401 theoreticians of management science were surveyed by means of an anonymous survey questionnaire.

Findings: Conclusions resulting from the conducted research and the analysis of the literature clearly indicate the need to carry out research work embedded in both theoretical and practical terms.

Originality/value: It is indicated that the main disadvantage associated with the management science is the impermanence of the claims made. It should be remembered that it also cover theoretical research within its scope, as no science can develop without theoretical background. It is also worth noting that the relationship between the management science and business practice is bilateral and additionally complex.

Keywords: management science, methodology, research methods and techniques.

1. Introduction

In modern science and economy (21st century), we are witnessing the development of management science that is moving towards the use of uncomplicated and complementary methods to consider all aspects of the same problem (Coghlan, and Shani, 2016; Collins, 2010). Modern businesses need to be able to adapt flexibly to the economy facing uncertainty and continuous dynamic changes (Harrington, and Voehl, 2016).

In the global economy, a variety of concepts, related to management, can be distinguished. They include (Hair et al., 2019; Dźwigoł, 2018):

- sustainable development and enterprise,
- responsible business,
- partnership,
- flexibility and changeability of behaviour and organisational solutions,
- intellectual capital and knowledge, entrepreneurship.

In modern business management, it is therefore necessary not only to improve efficiency itself, but above all the value of the company (Gerring, 2017). Increasing the company's value will depend, among other things, on its ability to cooperate with its environment in a sustainable way, as well as on flexible changes in the organisational culture, which should be supported by IT technology. The use of IT technology enables the company to balance and quickly adapt to changes taking place in the environment, as well as in various areas of the company's operations (Tonidandel et al., 2016).

The changes that are taking place in the company's environment thus necessitate the development of new rules, principles and ways of functioning of the company, but also new management systems (O'Leary, and Hunt, 2016). The complexity of modern enterprises and their relations with the environment also means that employees in the enterprise must possess a higher level of knowledge in terms of organisation and multi-disciplinary commitment. Therefore, it can be concluded that the survival as well as the development of an enterprise is determined by (Hair et al., 2019; Dźwigoł, 2018):

- the ability to anticipate change,
- focus on the company's operational processes,
- adapting existing management methods to new implementation conditions,
- effective management of the processes of changes taking place and being introduced,
- focus on creating effective attitudes and behaviour of employees,
- focus on creating efficient processes.

As a result, management science in the 21st century had to adopt a new paradigm, based on the ability to cope with continuous changes. It is recognised that a change is the only lasting phenomenon, process in the modern economic world (Sloan, and Quan-Haase, 2017).

The new management paradigm includes in particular:

- teamwork,
- constant learning,
- implementation of projects as part of one's own experience,
- good communication,
- integration and cooperation,
- partnership with customers and suppliers,
- agility and innovation.

Creating an enterprise of the future, based on the paradigm of management science in the 21st century, requires, among other things: rebuilding the management structure, rebuilding the rules of data collecting, more efficient use of resources (Hair et al., 2019).

What is more, in contemporary enterprises one can notice changes to their organisational structures. As a result, any bureaucracy and hierarchy are left behind, whereas economic processes run within the 'so-called' inter-organisational networks. A particular emphasis is put on the concepts of the following organisations: smart, virtual and organic (e.g. network and cluster-related) and relation-related ones (Almalki, 2016; Boddy, 2016). In order to establish an organisation based on the above concepts, it is necessary to develop the organisation's resource, which is knowledge. Proper knowledge management will therefore determine the competitive advantage.

Analysing the above solutions, it should be stated that management science and the methods used in it should support business practice and, to some extent, provide instructions to executives and managers. Management should be treated as a normative science, the aim of which is to formulate the principles of effective and efficient functioning of enterprises (Dźwigoł et al., 2019). Research results obtained during the research process in the field of management science should be applied in practice. Should this requirement be not met, management science shall be exposed to allegations of being science of lesser importance.

It is worth noting that the science on management was created and has been changed in accordance with the changes taking place in the economy, and thus it has developed in response to the economy's needs. The development of the economy triggered and still triggers the creation of an increasingly complex reality and space in which enterprises operate. Therefore, the sources of the creation of management science can be considered as typically practical (Apuke et al., 2019). The more complex economic and social life, the more complex and changeable the conditions of economic and social activities become. As a result, science is becoming increasingly practical. It can therefore be concluded that management science in the modern economy is very often the key to the development and competitiveness of enterprises (Hessen et al., 2019).

Unfortunately, the main disadvantage associated with the management science is the impermanence of the claims made. This impermanence results, among other things, from the fact that (Jokiel, 2006):

- the subjects of the research are most often variables that modify over time, e.g.: under various conditions: action, atmospheric, legal, social, environmental, etc,
- research facilities (e.g.: enterprises) are very diverse and complex,
- qualitative factors must be taken into account, and they are difficult to measure,
- the proposed and applied methods are evaluated differently by theoreticians and practitioners depending on the period of history,
- problems with verifiability of test results,
- have a normative character,
- verification of the claims is only done by putting the results of the research into practice.

Despite the impermanence outlined above, cooperation between science and practice should be strategic in the process of managing any 21st century enterprise. Taking into account the above considerations, the aim of this paper is to define the purpose of management science as supporting the practice of business life.

2. Research method

Conclusions resulting from the analysis of domestic and foreign literature on management sciences indicate the need for a diagnosis of how considerable the impact of science on business practice is. Therefore, the research problem was formulated as follows: Is it necessary for the research works carried out within the discipline of management science to be embedded in both theoretical and practical terms?

With reference to the above, the following research questions have been posed:

Q1. Is the management science aimed at supporting the practice of economic life?

Q2. Should the researcher provide methods of implementing patterns of effective solutions?

Q3. Is it necessary that the research works, carried out within the scope of management science, are embedded both in theoretical and practical terms?

Q4. Is the impermanence of the statements made the main disadvantage associated with the management science?

Q5. In the management science, does the time between posing a problem, its analysis and finding a solution and implementing it affect the effectiveness of the solution negatively?

Within the scope of the survey run from October 2016 to April 2018 a questionnaire form was used. The questionnaire consisted of three parts. The first part contained questions about the importance of approaches, processes, methods and techniques in a research process within the scope of management sciences (5 questions). The second part consisted of questions related to the problem of the improvement of a research process (33 questions). The third part contained demographics (3 questions). The respondents answered open, rank questions, as well as questions based on the 5-point Likert scale. The majority of the target group consisted of 401 management theoreticians.

3. Research results

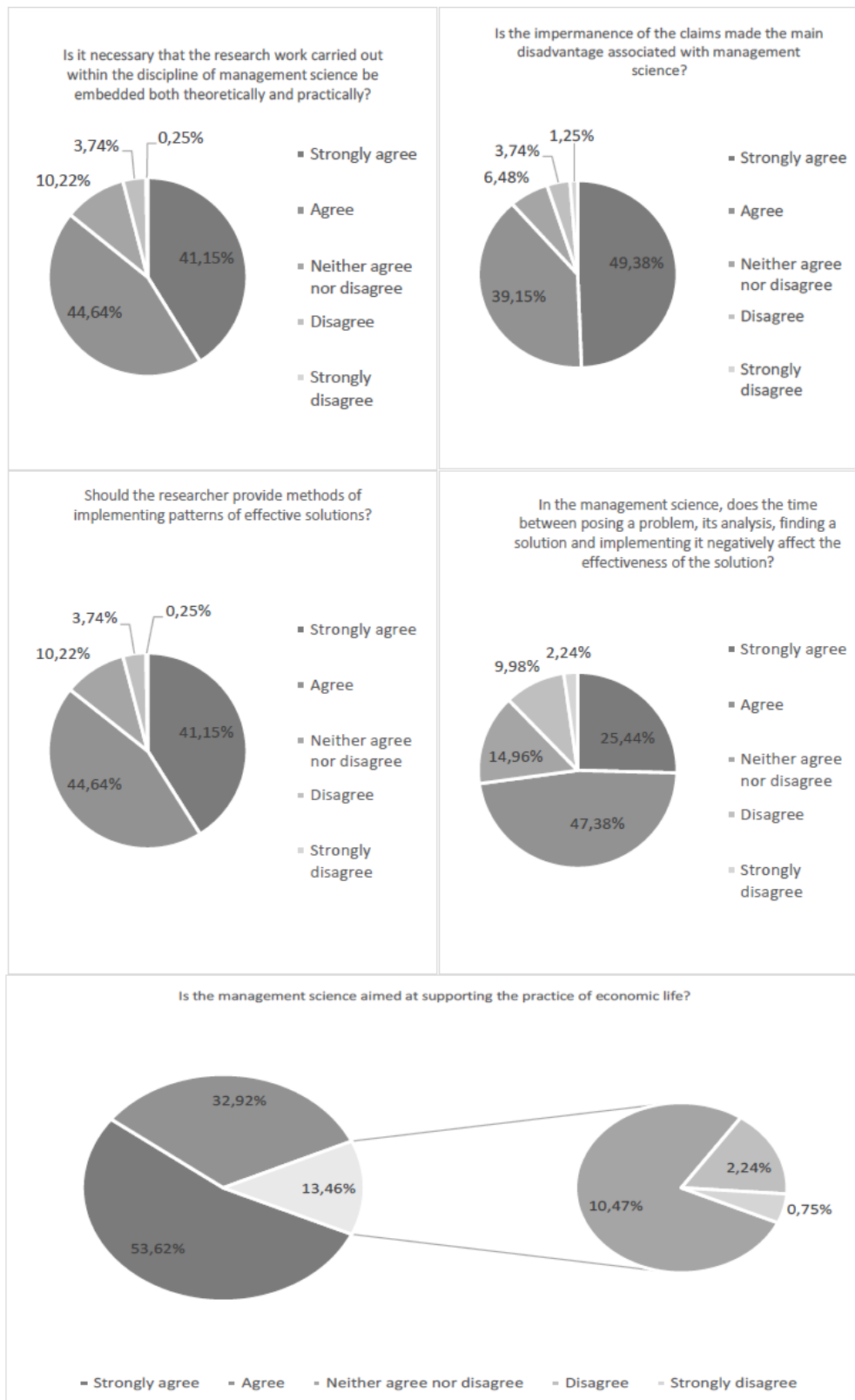


Figure 1. Impact of management science on business practice – research findings. Author’s own research.

When analysing the results obtained, it can be clearly stated that:

- It is necessary that the research work carried out within the discipline of management science should be embedded both theoretically and practically.
- The main disadvantage associated with management science is the impermanence of the claims made.
- The researcher should provide methods for implementing patterns of effective solutions.
- In the management science, the time between raising a problem, analysing it and finding a solution, followed by the latter's implementation negatively affects the effectiveness of the solution.
- The aim of the discipline of management science is to support the practice of economic life.

There is a significant link between science and practice. This relationship arises from the fact that scientific research is always, or to a large extent, induced and conducted by the occurrence of a problem or phenomenon in the real world. Given the existing relationship between science (research) and practical human activity, science or research can be divided into:

- theoretical (basic) science (research),
- practical (applied, development-related) science (research).

Theoretical sciences aim to explore the natural and social world without asking how the research results will be used by humans in their activities. Practical research, on the other hand, is directed in advance to solve or describe a problem or phenomenon occurring in practice. Therefore, the practical layer must be accompanied by the theoretical layer and vice versa.

The mission of the management sciences is to provide knowledge and appropriate methods for investigating problems in this discipline. The proper selection of methods for the analysed issues is a fundamental methodological issue. The foundation of science is not a set of laws or findings, but the process of creating accumulated knowledge (Joslin, and Müller, 2016).

In research, relevance refers to the legitimacy of reasoning as well as the validity of arguments. In empirical research, on the other hand, the concept is understood as the extent to which a specific research conclusion adequately reflects the truth (Roe, and Just, 2019). There are many types of relevance in the literature, but in the management sciences, relevance is most often assessed (Gibbert et al., 2008): internal, structural and external.

4. Summary and research findings

The aim of the article was to determine whether the purpose of the management science is to support the practice of economic life. Conclusions resulting from the conducted research and literature analysis clearly indicate that:

- It is essential that the research works carried out within the scope of management science is embedded both in the theoretical and practical context.
- The main disadvantage associated with management science is the impermanence of the statements made.
- The researcher should supply methods of implementing patterns of effective solutions.
- In the management science, the time between posing a problem, its analysis and finding a solution and implementing it negatively affects the effectiveness of the solution.
- The aim of the management science is to support the practice of economic life.

Moreover, the clash between the methodological potential of management science and the challenges of the modern scientific and business environment allows for better identification of fundamental problems that the methodology of this scientific discipline faces. These are

- external conditions,
- breakthroughs in its development, including globalisation processes,
- looking forward to new, more efficient methodological proposals.

Therefore, the key to the development of this science is the need to elaborate the principles of application of the methods that constitute the pragmatic methodology, to disseminate methodological paradigms identified especially in the approach of contemporary methodology of management science, which would make it easier for both theoreticians and practitioners to choose a specific research method more easily and efficiently (Bryman, 2006; Vaivio, and Sirén, 2010).

Assuming that the purpose of the discipline of management science is to serve the practice of economic and social life through: providing models of effective solutions in the area of organisation and management, providing methods of implementation of these models, it should be noted that science and related research works are more and more closely connected with economic practice than before (Hair et al., 2019).

It is therefore essential that the research work carried out within the discipline of management science is embedded in both theory and practice. Although management science is most often treated as applied or practical science, it should be remembered that it also undertakes theoretical research within its scope, as no science can develop without theoretical research. It is also worth noting that the relationship between management science and business practice is bilateral and additionally complex. Therefore, it seems appropriate to refer to the management sciences as 'medicine of an organisation'. The science deals with 'health and diseases of organisations, and at the same time managing the art of disease prevention and treatment'.

The following relationship between science and management practice can be identified: inseparability of theory and practice. 'The theory essentially arises from the needs of the practice. The practice poses questions to the theory, but also the theory demands that the practice be enforced.'

- There occurs a short-term discrepancy between the expectations of science and practice. The aim of science is to search for objective truths in a specific area of reality, whereas practice expects, above all, effective algorithms and procedures for dealing with and solving existing problems.
- In the case of solving problems of minor importance in the field of science, which are raised by enterprises on a casual basis, science becomes deprived of its depth and the position and authority of the presented solutions is lowered.
- There is a considerable time lag between the problem being posed and analysed, a solution being found and implemented, which also affects the effectiveness of the solution and the possibility of its evaluation.
- In management science there are no universally developed concepts, solutions to problems. It often happens that the achieved research results are only applicable in individual cases.

Management sciences are a set of disciplines, subdisciplines and scientific fields, which derive from other branches of sciences, and hence they lack their own kit of methodological and cognitive tools. Thus, a researcher, while analysing a given research problem, is forced to enormously struggle so that he/she could find the right research method to analyse the given phenomenon. Furthermore, he/she should also elaborate a research programme that would cover not only a defined area of research, but also a precise research problem and its purposes. More often than not the choice of the tool kit may depend on the adopted research aim.

Nowadays, in order to increase the credibility of the conducted research and the probability of finding a solution, the principles of triangulation are frequently used, i.e. employing numerous different procedures to find answers to the research questions raised. However, this creates a certain risk associated with the use of methods by the researcher, which he/she does not fully understand and know.

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