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SCIENTIFIC RESEARCH METHODOLOGY IN MANAGEMENT SCIENCES

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Abstract: In the article the author attempted to analyse research methods which are to affect, in an explicit and reasonable way, conducting of a correct and reliable research process, with consideration given to practical and theoretical aspects of management. The management science methodology along with the management methodology were presented. The author also discussed originality in scientific research.

Keywords: scientific research, science methodology, management methodology.

Introduction

Research studies constitute complex processes aimed at solving given problems. Their results may be, *sensu stricto*, of cognitive character. Nonetheless, research may be carried out in order to achieve determined practical goals. Performed in all branches, research consists of fixed elements, i.e. analysis and synthesis. The contribution of particular elements depends on the character of the phenomena being examined.

Empirical research methods are proper methods for management sciences. It needs to be underlined that one should employ proper methods allowing to verify research hypotheses and answer research questions. Deductive methods, analogical reasoning, complemented with intuition should be a source of research hypotheses or a basis for formulating research questions. Carrying out research as to management sciences requires more research discipline than the above-mentioned intuition (Niemczyk, 2011, p. 19-20).

Research methods and techniques have been, over past years, subject to thorough changes and developments. In management sciences, one can observe a trend of rejecting traditional thinking in favour of combinative thinking. Traditional thinking is based on standard patterns limited to determining goals and classifying them as general (main) and detailed ones, to establishing goal review systems and providing them with formal structures.

A starting point for each marketing research is to determine a sample size. Since each research addresses a different need as to decision-making process, there are no two identical

research. Each research consists of a few stages which form a certain closed cycle. Each step requires different courses of actions in the research process.

A researcher should put a particular emphasis on creating a correct research methodics, while distinguishing basic notions used in the management sciences. The basic notions are as follows:

Method – a conscious, model, systematically applied set of activities, enhancing the efficiency and cost-effectiveness of actions. The method in itself includes a normative element. It imposes how actions are to be performed, in the sense that it deals with a notion of good labour (Hejduk, 2000, p. 103).

Research method – in management sciences – it is a method which is systematically and repeatedly used in order to study various problems. One uses the results of the said research to create theoretical generalisations and empirical principles of practical nature. It is a set of activities and methods used to solve scientific problems and assess the research results (Pieter, 1975, p. 40).

Methodology – a branch of knowledge about methods used in science. It is reduced to the analysis of a research process. The methodology comprises the following methods: deductive and inductive methods, analysis and synthesis. The methodology is a theory of proficient, effective and economic methods of cultivating science (Such, 1969, p. 7). The methodology of management sciences is aimed at elaborating systematic and effective procedures for recognising and developing organisations and their management. Basic issues refer to both epistemological and pragmatic apparatuses (Sułkowski, 2005, p. 14).

Methodics – is a methodologically correct set of directives, showing manners of working and methods of operation. Methodics stipulates actions not only for a given area of scientific research, but also for practical applications (Pszczółkowski, 1988, p. 119).

Organisational Methodics – indicates what methods and techniques are used to complete specified organisational tasks (Pszczółkowski, 1988, p. 119).

Typology of methods and management techniques is a science about types. It encompasses the process of ordering, putting into groups and dividing research methods and tools, used in management sciences.

In order to discuss methods necessary for execution of scientific research as to management sciences, one needs to define basic notions. Among basic notions, one might include research methods, research processes or classification of research methods. The author posed the following research questions:

1. Should the research methodics be reviewed in terms of their usefulness for finding a solution to a given research problem?
2. What criteria should be used when assessing the usefulness of a given method or technique for the said research process?
3. Should one elaborate a concept for a model of diagnoses, that would help to assign methods, techniques to a given research process?

4. Is it possible to create model research methodics, to be applicable in each research process within the management sciences?
5. How to elaborate rules of methodological coherence of research, as well as scientific integrity of research and its interpretation?
6. How to create a set of tools for researchers, which set would allow to overcome obstacles in conducting research?
7. What criteria should be employed to verify scientific solutions that would provide for the applicability of research findings and implementation of managerial solutions into practice?

The author attempted to elaborate a concept of a model to diagnose research methods and techniques from the perspective of a given research process. He has been trying to elaborate a tool that would support a process of selecting methods and techniques as to the research process, as well as a tool that would enhance the applicability of the research findings. The aim also includes the most essential methods and techniques in the research processes within the management sciences – according to experts.

The author can boast his many-year experience in managing large and medium-sized companies, he has also held numerous expert and advisory functions to board of directors in companies. He has been employed as an interim manager. He has been an academic manager in international projects. He has run an international research project as to justifiability of creating new research methodics, supporting the process of selecting relevant methods, techniques and procedures in *Management sciences.* He has also developed international research project on competencies and features of managers necessary to play the role of interim managers. He has published his research findings in more than 220 national and international publications.

1. Research in management sciences

According to Polish classifications, management sciences are a scientific discipline within the scope of economics sciences. They are also classified, non-formally, as social sciences. It is thus indicated that empirical research methods are proper methods for management sciences (they allow to verify research hypotheses or find answers to research questions) (Niemczyk, 2016, p. 17).

The development of science may be of **cumulative** (it involves enhancement, enrichment and development of scientific knowledge, where knowledge falsifiability rules are, more often than not, blurred) or **eliminative** character (it involves a constant verification of existing knowledge and developing, on its basis, a new knowledge; knowledge falsifiability rules should therefore be as precise as to allow for eliminating false or outdated knowledge). In case of social

sciences it is difficult to unambiguously assign it to one of the said sets (Amsterdamski, 1987, p. 590). The development of science can also be similar to **evolution progress**. It features a slow verification and enhancement of ongoing knowledge, sceptical approach to new ideas and consequential introduction of new solutions or **revolutionary** introduction of changes. Social sciences adopt, more often than not, a form of evolutionary changes (Niemczyk, 2016, p. 18).

Deductive sciences are characterised by the fact that the process of developing scientific knowledge is performed by accepting conditions that were logically justified. It is not necessary to verify the knowledge in an empirical way. **Deduction** is aimed at creating scientific statements and their falsifiability. It is based on application of formal logics. An important role as to shifting the deduction importance and place within the science methodology was played by I. Kant who believed that our experiences were not entirely objective, since the cognition through experiences was also affected by statements based on reasoning. Thus, the statements can often unconsciously affect the determined findings. Hence, one can draw a conclusion that it is not possible to separate an object of research from the cognition of the research subject (Hempoliński, 1987, p. 156). The said conclusion in question also applies to management sciences; it might be concluded, within the scope of the said sciences, that it is not possible to conduct a research process without deductionism. On the other hand, K. Popper (Popper, 1977; Popper, 1999) presented the following notion – so-called **deductive hypothetism**. The latter advocates the predominance of a deductive approach in all branches of sciences, economic sciences included. The notion emphasises the role of human minds in the process of discovering new scientific theories, it also underlines that the deductive way of reasoning is the most valuable one (Niemczyk, 2016, p. 20).

In spite of beliefs by I. Kant and K. Popper, **empiria** is regarded as a prevailing methodology in social sciences. Within the scope of **empirical science**, knowledge is formed through a research-related verification of research hypotheses; it makes use of both induction logics and classical formal logics (especially in astronomy and physics). In economic sciences (including management sciences) it is recommended to create scientific theories in accordance with this concept, i.e. through shifting from details (observed facts) to generalisations (general laws of science) (Niemczyk, 2016, p. 21).

Empirical research mostly refers to the size-related evaluation of a set of potential logical sentences that confirm a given hypothesis. To this end, a few solutions were elaborated, namely (Niemczyk, 2016, p. 21):

a. *complete enumerative induction*, which involves verifying hypotheses on the basis of sentences that describe all possible cases (e.g. finding out about success strategies of companies from the power sector in Poland during recession);
b. *incomplete enumerative induction,* which involves verifying hypotheses on the basis of just some occurring cases. It allows to discover certain general truths or generalisations

(e.g. an answer to the following question – what strategies may be successful strategies for companies during recession);

c. an analysis of just one specific phenomenon occurring in a determined space- and time-related dimension (e.g. why was this particular company successful?).

A distinctive feature of empirical research to be found in social sciences is conducting research of 'people by people'. In this context S. Nowak (Nowak, 2007, p. 83) underlines that the said social sciences provide researchers, apart from sense-related experiences acquired through observations, with experiences connected to the experience of introspective sensations of the researcher himself/herself and of people whom he/she examines. It is of particular importance in situations when a researched group can deliberately distort research results, e.g. in opinion polls by means of surveys forms or direct interviews.

It needs to be emphasised that the empirical theory will turn into deduction through classifying some statements as of key importance and proving that the remaining statements have stemmed from the former (Wójcicki, 1987, p. 76). So far it has been impossible to settle a conflict as to which approach – empirical or deductive one – should be predominant in the development of science. J. Niemczyk (Niemczyk, 2016, p. 20) indicates that one of the most common mistakes in this area is to ignore one of the approaches during one's research, e.g. to use, for the sake of formulating statements in a given theory, solely the principles of strict logics (deduction).What is more, he claims that the dispute is very often of substitute character, since it is difficult to imagine, at this stage of science development, deductionism along with strict rules of logics or such areas of social knowledge where empirical cognition (sensual) will be the only source of verification for research hypotheses.

In the social science methodology one can distinguish two research approaches: **nomothetic** and **idiographic**. The *nomothetic approach* involves seeking general laws and rules existing in the nature. Typical research procedures as to the approach in question are: experimenting, inspecting and correlating, whereas the approach-related characteristic methods are the following: interviews, surveys, observations, experiments and tests. The *idiographic approach* is based on explaining phenomena in such a way as to identify external events that may shape the said phenomena in a qualitative way. As far as the latter is concerned, a case study is the right research procedure to this end, whereas the methods involved are as follows: document analyses, interviews, observations or projective tests (Chełpa, 2002, p. 351; Niemczyk, 2016, p. 22). According to W. Windelband and H. Rickert, the fact that the *idiographic approach* was mentioned is a result of one's focus on seeking characteristic traits which distinguish the given phenomena from the others (Thomae, 1999, p. 189).

On the basis of a common classification of sciences, economic sciences perform an utilitarian function or theoretical and normological one. Due to the fact that management sciences are a part of economic sciences, they also play the same role. **Nomothetics** shall occur when a general law will be developed on the basis of an analysis of an individual case. On the other hand, **idiographic methodics** occurs where the aim of the research will cover a desire to

know, explain the essence and features of a given occurrence, as well as desire to understand the said occurrence (Niemczyk, 2016, p. 23).

A science paradigm determines what tools are to be selected in order to facilitate comprehension and explanation of a given phenomenon, particularly in social sciences, despite of the fact that the professional literature suggests that quantitative research is treated as 'better' and providing with more reliable knowledge than the qualitative research. Nonetheless, in numerous cases the research needs to have qualitative character, at least due to the features of a given problem (Niemczyk, 2016, p. 23-24).

Quantitative research means empirical research; it involves measuring of determined variables in a quantitative way, by means of quantitative measurement tools. The research is used when a given problem and research findings may be described with the help of quantitative measures. The set of quantitative research also encompasses surveys that are aimed at verifying formulated hypotheses through analysing the frequency of utterances (Niemczyk, 2016, p. 23-24).

Qualitative methods involve, among others (Niemczyk, 2016, p. 23-24):

- field research,
- standardised and anthropological interviews,
- observations (with a special consideration given to participant observations),
- focus or expert groups,
- panel discussions,
- text analyses.

Quantitative laws are elaborated with the use of mathematical formulas (a successor). A preceding action (a predecessor) in the case of these laws involves enumerating conditions that would determine the occurrence of the said relationship. **Qualitative laws** means laws defined by means of a language typical to a given branch of sciences, they are aimed to determine features of a given class of objects. The laws in question feature a less accurate description of a predecessor, as opposed to quantitative laws. It needs to be underlined that the context of qualitative and quantitative laws is not necessarily related to qualitative and quantitative research (Such, 1987, p. 516).

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 (Krzyżanowski, 1999, p. 134). 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 (Niemczyk, 2016, p. 23-24).

Currently, in order to improve the credibility of the research being conducted and the probability of finding a solution, one uses, more often than not, *triangulation methods*, i.e. many various procedures are employed in order to find an answer to the research question. However, there is a risk that a researcher may use methods which he/she has not been entirely familiar with (Niemczyk, 2016, p. 25).

The view is confirmed by T. Mayer (Mayer, 1996, p. 37) who suggested that economists, viewed as researchers, show a greater tendency to make excessive use of tools employed in science, diminish the importance of tools from other social sciences, use complicated theories to overly simplistic issues, promote such notions as "optimization", withdraw from other social sciences and deal with social problems as if it was a respectable mission. Taking the foregoing into account, an honest and reliable researcher should successfully combine the following features (Mayer, 1996, p. 25):

- skills,
- imagination,
- inquisitiveness.

The core of the research process is to find a solution, not a tool which might help to find the solution.

2. Management methodology

Each research discipline is built, in most cases, upon cognitive methods being of the greatest use to it. Practical science, however, has at its disposal additional pragmatic methods. Management methodology, having no universal and timeless character, relies on considerations on how management methods are developed in order to allow, both a researcher and a manager, to penetrate the world of organisations (Sułkowski, 2016, p. 29).

Management methodology has been developing quite fast, deriving inspirations from several other disciplines. Apart from that, it is endowed with other methods that characterize various cognitive and practical effectiveness (von Krogh, and Roos, 1995). The term *method* comes from Greek (*metahodos*) and means a course of action. Thus, the method is a way of acting, a result of which is to find a solution to a given problem, and a sequence of actions aimed at achieving a defined goal (Ostasz, 1999, p.10). Management methodology is looking for rules that lead, mainly, to achieving reliable knowledge and to changes that trigger the improved effectiveness of organisational actions (Sułkowski, 2016, p. 29).

Both **ontological** and **epistemological** bases lay foundations of management and organisation methodology. The management ontology is evaluated through the prism of learning about the organisation and its management process. Cognitive assumptions have been changed along with the development of the discipline. According to Ł. Sułkowski (Sułkowski,

2016, p. 29) the **methodology** steams from the epistemological level (it involves evaluating cognitive and pragmatic effectiveness of the management method; it encompasses both cognition and development of the organisation) and **management methodics** (a set of methods that allow to solve management problems in a proper way) (Sułkowski, 2016, p. 29).

The management uses four basic types of methods (Ostasz, 1999, p. 11-17; Sułkowski, 2016, p. 31):

- pragmatic (*objective: improved effectiveness of the organisation management*),
- empirical (*objective: recognising an organisation and management system, understood as recognisable real beings – realistic approach*),
- formal (*objective: creating a logical or mathematical structure of methods*),
- understanding (*objective: recognising the organisational pattern of the management systems, understood as constructivist beings – interpretative approach*).

The oldest group of research methods applied in the management sciences are the **pragmatic** ones, being of common-sense character. What distinguishes them is their ability to solve practical problems that human beings need to face, instead of striving to find the truth. In its essence, their basic value-related criterion is their change-related effectiveness, which can trigger an enhanced effectiveness of organisations. Pragmatic methods reap from executive techniques, both related to law and engineering in terms of common sense (Sułkowski, 2016, p. 31).

Empirical methods relate to quantitative methods in social sciences (e.g. survey method) natural history methodics (e.g. observation or experiment). The methods mainly refer to seeking a truth on the basis of experience, while providing for such conditions that reflect the reality to the greatest extent. The cognition is based on the induction (Popper, 1999; Sułkowski, 2016, p. 31).

On the other hand, **formal methods** refer to the hypothetical thinking, that is to mathematics, logics, statistics and deduction. Their application is reflected in the area of numeric and probabilistic methods. The results, however, can have practical and cognitive effects (e.g. operational and econometric research) (Sułkowski, 2016, p. 32).

The last group of methods covers the so-called **interpretative** (understanding) methods. In their essence the methods refer to humanities and philosophy. They cover: analysis of the notions being used, dialectics, phenomenology and hermeneutical analysis Gadamer, 1993). The methods are applied in the ethnology of organisations (e.g. field observation, ethnological interview, text analysis), as well as in interpretative and cognitive sociological methods (e.g. ethnomethodology, grounded theory methodology, social intervention method) (Sułkowski, 2016, p. 32).

J.B. Miner (Miner, 1984, p. 296-306) indicates that **credibility** and **effectiveness** of research methods are one of the most crucial problems in the management sciences. According to M. Honorowska (Honorowska, 2007) **the credibility** may be translated into a notion of relevance (determining whether a given method or technique or a research tool is measuring

what was determined to be measured) and reliability (it is connected to the measurement accuracy). On the other hand, **the effectiveness criterion** is, as T. Kotarbiński (Kotarbiński, 1972) claimed, of crucial importance for applied and practical sciences. However, it mainly refers to pragmatic methods (they are not only to describe the reality, but also its change, in the positive sense of the word).

In the **neo-positivist trend,** stemming from engineering and economic sources, the division between research methods and pragmatic ones is considerably distinctive. The drive to determine and apply an ideal method, both in the pragmatic and cognitive fields, equals the drive to achieve such organisation- and management-related knowledge, which may be regarded as perfect. As a result, the organisation is becoming more and more effective. In the **critical trend,** *the research* should, by definition, be engaged and focused on an emancipation-related change (Alvesson, and Willmott, 1992, p. 432-462). On the other hand, the **interpretative and symbolic paradigm** and in **postmodernism**, as interpreted by K.E. Weick (Weick, 1995), the distance between a researcher and an organisational reality being researched is erased. To sum up, it is therefore impossible to separate cognitive methods from pragmatic ones.

L.J. Krzyżanowski (Krzyżanowski, 1999) agrees with statements by A.K. Koźmiński (Koźmiński, 1989). The latter claims that management has been outdated from the methodological point of view. He also suggests borrowing, in a skilful way, from other scientific areas. Nonetheless, A.K. Koźmiński (Koźmiński, 1989, p. 32) underlines that there is no need to separate and disjointly develop specific methods; however, there is a need to integrate, on a trans-discipline level, overly specialised sciences.

Among various management methods one can distinguish: 1) **methods borrowed** from other scientific disciplines (they mostly refer to organisation and management), such as: survey methods (derived from social sciences), observations (taken from natural sciences), ethnological methods (derived from anthropology), casuistic ones (derived from legal science), para-experimental (derived from social and natural sciences), documentative methods (derived from history and social sciences), but also 2) **proper to the management** (they refer to the development of organisations and management systems) (Sułkowski, 2016, p. 35).

The management as a discipline rejected the methodological fundamentalism which stringently defines the scientific character of a method, evoking neo-positivist models in natural sciences. In the literature related to management sciences one can find recommendations advocating **pluralism,** or even **anarchism** in this area, which is reflected by a conviction that it is necessary to make use of numerous cognitive methods and organisation developing methods, and of methodological triangulation. All that is reflected in the **methodological eclecticism** formula (Sułkowski, 2016, p. 35).

A dominant paradigm is an approach of neo-positivist, functional and systemic character. The paradigm refers to both **cognitive methods,** designed to deliver objective and certain knowledge on organisation and management, as well as **pragmatic methods,** providing with

reliable results and reinforcing the improvement in effectiveness. In the neo-positivist trend there occurs intertwining of methodics applied in the area of economics, mathematics, statistics, social sciences, psychology, engineering sciences, and even epistemology of logical empirism. The commonly used methods are as follows: mathematical modelling, statistical analyses, interviews and surveys, project methods, cybernetic and systemic method (Sułkowski, 2016, p. 38). The research conducted within the trend in question is based on the following methods (Armstrong, 1993, p. 3-6):

- strategic and operational management,
- human resource management, finance and information management,
- the measurement of effectiveness and efficacy of management.

All methods classified as belonging to neo-positivist paradigm are accused of, among others: lack of flexibility, excessive purism, as well as inability to grasp psychological and social processes (Sułkowski, 2016, p. 39).

On the other hand, **the alternative paradigm,** referring to social sciences originating from humanities, is represented by (Flick, 2002; Sułkowski, 2016, p. 39-40):

- psychological methods of management, based on qualitative and quantitative studies (in the **research-related area,** psychometrics and projection methods are used, such as: psychological tests, experiments and para-experiments, as well as the depth psychology methods. In the **pragmatics-related area,** one may use the following techniques: creative techniques, creating and combining teams, researching attitudes and motivations, leadership development), to name a few;
- organisational anthropology (e.g. field method);
- ethnomethodology, coined by H. Garfinkel (it applies conversation methods – it aims at extracting colloquial, repeatable language categories that structure social situations);
- sociological intervention, coined by A. Touraine (based on assumptions of an active researcher within the scope of developing groups; it leads to creating situation-related solutions);
- the grounded theory (it recommends creating pluralistic research strategies, combining qualitative and quantitative techniques);
- case studies (a set of qualitative methods, widely used and refined in the management);
- *participatory action research* (a form of social intervention);
- discourse analysis and metaphoric methods.

The above-mentioned methods focus on qualitative and field research. With reference to the foregoing, they are applied by both academic bodies and consulting companies (Sułkowski, 2016, p. 42). It may be concluded that, as far as alternative paradigm methodology is concerned, numerous research techniques are employed, among others, participant observations, in-depth interviews, group interviews, social intervention techniques, discursive techniques or critical incidents techniques (Halkier, 2020, p. 327-358; Flanagan, 1954, p. 327-358).

However, the alternative paradigm methods have certain flows. The heterogeneousness of methods brings about that comparing results is difficult, ineffective and inefficient in case of reviewing massive processes. Due to the fact that intersubjectivity is its underlying factor, it is difficult to prove objectiveness of findings and their reliability. Moreover, the commitment of the researcher, as seen in the alternative paradigm, stirs ethical controversies (Guba, and Lincoln, 1994, p. 105-117; Sułkowski, 2016, p. 42; Czakon, 2011, p. 60-61; Babbie, 2003, p. 334-336).

3. Originality in scientific research

Originality can be perceived as a factor that accelerates science; it is a determinant of a researcher's competencies and identity. One needs to make a clear division between originality in scientific research and 'being original' in every day's life. The originality does not require to explicitly dissociate oneself from any hints and environmental inspection. What is more, one needs to underline two basic differences between the scientific and every day's originality, i.e. a subject that is seen as an original one and a way to accomplish it (Strużyna, 2016, p. 70, 77-78). Seeking originality in social sciences may take form of three ways (Strużyna, 2016, p. 79):

a. **a traditional pattern**, where a problem is set in the present and where achievements are further pursued,
b. **problematization**, where a problem is set in the present or when a researcher looks into the future and questions what is present now,
c. **looking for initial obviousness,** i.e. coming back to where the problem originated and then questioning it or pursuing it.

The existence of multiple factors, pace, character and time, and spatial diversity of the growth of knowledge on a given discipline will affect the way the originality of the research work is evaluated. The process of the social development of knowledge can have two alternative forms (Davis, and Christopher, 2005, p. 332-343; Pfeffer, and Fong, 2005, p. 372): 1) eclectic justification of an issue being researched, and consequently a considerable acceleration in creating new threads and research works, combined with a dispersion of research results, difficult to order and systematise, 2) drive to build a logically coherent and integrated structure of scientific ideas, i.e. fill with relevant content the 'identified knowledge gaps', as identified by predecessors. In reality, original effects achieved by the second form are positively evaluated by worldwide publishers, and they contribute to a transparent and continuous development of the theory (Strużyna, 2016, p. 51). According to R. Dubin (Dubin, 1987) each theory can be understood through answering the following questions what?, how?, why?. Each new suggested

answer can, either collectively or individually, be regarded as an original improvement of the existing theory.

What is particularly important in this case is an answer to the 'what' question. However, due to the specific character of management theories, one should take into account five issues related to the originality of the answer, namely (Strużyna, 2016, p. 51-63):

1) **new elements or new fragments introduced to well-known constructions**, which may derive from a need to take into consideration new social phenomena and technical advancement, or to increase an initial number of variables. Such actions, in order to be classified as original research propositions should: create a different picture of an initial concept (Czakon, 2005, p. 5-8); explicitly indicate the need to complement, and the relationship between new solutions and their initial version (Dooley, and van de Ven, 1999, p. 358-372); reflect a current discussion on limitations of grounded theories; enrich the solution and avoid blurring a clear division between constituents of the original concept; present something more than subjective limitations of the original idea, acknowledged by the author.
2) **creating new concepts**. In order to be classified as original, the propositions are required to meet the following conditions: a) it allows to comprehend the structure of the subject not only by the very author of the said concept, b) it simplifies current complexities and c) it makes current solutions complex enough for people to comprehend them intellectually. In this context it is worth mentioning that not all research findings related to determined issues should become a coherent, homogenous and simultaneously original theoretical subject.
3) **synergy of management-related knowledge with the knowledge derived from other theories**. It needs to be mentioned that the attempt in question requires a proper recognition of the given proposition, extensive knowledge related to management sciences, including its application practices, and consequently a clear indication how the said solution is to contribute to the development of management theories.
4) **impact of developing management-related subdiscipline on the management theory**. In this case the evaluation of originality will be the easiest; detailed research findings will complement management theories, whereas their author will clearly indicate why his/her results are to be included in the management sciences. It often happens that subduing the entire scientific work to criteria that are crucial to the said subdiscipline may bring about that the work findings will be original solely from a considerably narrow point of view. Thus, the evaluation of work results in management sciences may be rendered difficult.
5) **creating a new management theory on the basis of other theories**. Within the scope of the approach in question, one may distinguish three ways of how to build a theory: 1) creating a unique and specific theory for the subject-matter and issues related to the management, which theory will be approved by all management representatives, and

that is virtually impossible, 2) creating theories as a result of partial research of individual researchers, where financial and factual support, granted by respected worldwide academic centres, is of particular importance, 3) adapting theories derived from other sectors or disciplines to management sciences. It is reasonable to focus, while creating new theories on the basis of other theories, on the following matters: a) having knowledge related to constituents of other theories being currently adopted to the new theory, as well as the management itself; b) analysing the relationship between practical and theoretical aspects when the process of theory development is connected to practical experiences of a researcher; c) understanding the difference between compilation and scientific value of science-related eclecticism and bricolage (Boxenbaum, and Rouleau, 2011, p. 272-296).

It needs to be emphasised that the above-mentioned collation should not be treated as a decisive one, with a growing importance of originality. It might happen that a pursuit to create a new theory may be less favourable than a properly selected and original supplementation of existing theories whose recipients are already known – the scientific environments which often share their views, making it thus possible for researchers to find acceptance for their works (Strużyna, 2016, p. 61). What is more, looking for an answer to the 'what' question requires to take into account the following approach stating that a theory is a relationship between two variables, instead of a set of notions (Homans, 1964, p. 951-977). Therefore, it must be taken into consideration in terms of answers to 'how' and 'why' questions.

With reference to the foregoing, it is possible to determine a procedure of research behaviour, aimed at complementing, in an original way, a management-related research gap, i.e. (Strużyna, 2016, p. 61): 1) in-depth studies on the collected management theory (with consideration given to the knowledge from other sciences, practices, grounded views and ideas or circumstances), 2) identification of knowledge gaps, 3) elaboration of concepts and attempts to complete the identified gaps, 4) evaluation of originality and importance of an achieved research result, 5) making generalisations as to the achieved results and their connections with other sciences, 6) institutionalizing original and highly-valued effects.

In order to achieve the originality of research papers one may have recourse to so-called **problematization**; the latter was skilfully employed in the management sciences by M. Alvesson. In co-operation with J. Sandberg (Alvesson, and Sandberg, 2013, p. 128-152) the researchers indicated that nowadays there is a distressing lack of new ideas and a scarcity of strong impact of research findings in the management sciences on practical aspects. It needs to be mentioned that traditional ways of broadening the knowledge, e.g. attempts to fill the 'knowledge gaps', to create one theory on the basis of the other ones or collecting and interpreting empirical data are not as productive as it was commonly believed. What's more, M. Alvesson, along with D. Kärreman (Alvesson, and Kärreman, 2007, p. 1268) underline that data does not necessarily have to generate an original and interesting research problem, and that it does not make one ponder on it. Moreover, the researchers claim that it is pointless to

minimise the impact of a researcher's personality and subjectivity of his/her choice as to theoretical assumptions. When the issues are ignored, one loses a factor that enhances the environment's ability to identify interesting issues and trying to comprehend them better. Thus, an indelible element of the research process should be a focus not on a data processing process but on breaking assumptions and basics underlying the given theory.

Problematization is a methodical, conscious and rational way of developing research questions for each work. It is not connected to a natural evolution of opinions. The core of problematization is to find contrasting ideas to one's own and other researchers' assumptions, combined with a drive to reach a dialectic synthesis (Strużyna, 2016, p. 67-68). However, M. Alvesson and J. Sandberg (Alvesson, and Sandberg, 2011, p. 247-271) state than non-reflective implementation of their ideas may result in a surplus of new assumptions or may confuse and contradict the positive functions of sciences. Consequently, there may appear even greater discrepancies in the attitudes that contradict the said assumption. That is why the researchers in question recommend including the problematization into the process of creating original theories, by means of posing key questions, both in relation to empirical material, as well as any remaining constituents of the given construct. What is more, they emphasise the need to introduce changes to the academic environment and the necessity to adjust the problematization to the social process of seeking balance between new and conventional ideas.

A problematization-based research programme should in the first place encompass answers to the following two questions (Strużyna, 2016, p. 68): 1) what types of assumptions are substantially connected to considerations, and 2) how might the assumptions be identified, expressed and questioned in order to promote the development of an interesting theory.

As far as the first question is concerned, it is important to distinguish five wide sets of assumptions which may, separately or jointly, create problematization fields. The assumptions are as follows: 1) internal ones, 2) source metaphor, 3) paradigm, 4) ideology and 5) field (Alvesson, and Sandberg, 2011, p. 254).

The process of finding an answer to the second question should be carried out in accordance with the following rules (Strużyna, 2016, p. 68-69): 1) identifying an area of literature, 2) identifying the assumptions of the area, 3) assessing the area assumptions, 4) creating an alternative assumption, 5) analysing propositions in terms of their recipients, and 6) assessing the alternative assumption.

J. Strużyna (Strużyna, 2016, p. 71) states that the assumptions, as presented by M. Alvesson and J. Sandberg, should be completed with an additional criterion, i.e. 'a social evidence of the need' to conduct a given study, as the criteria of the above-mentioned authors encompass already existing sets of assumptions, whereas a determined cause must have appeared earlier for the sake of which paradigms, research schools or research fields were created. In the management sciences, the return to the core, the uncovering of the lower layers of knowledge may only help to get away from any fashions. The results achieved by popular scientific research are, as a matter of fact, virtually incompatible to old paradigms, schools, ideologies or

fields (Czakon, 2014). Fashions can only give a delusion of originality and exert a growing pressure on providers of scientific ideas, at the expense of lower quality of findings (Benders, and van Veen, 2001, p. 33-53). With reference to the foregoing, one can determine three steps allowing to **reactivate the primary curiosity** which used to inspire researchers, i.e. (Strużyna, 2016, p. 72-74): 1) identifying commonly approved foundations for such types of research, 2) formulating suppositions as to the reasons underlying the coherence, differences and origins of their successful application, 3) stirring hope to recreate the scale of implementation of individual obviousness expressed in subsequent texts.

Taking into account the above-mentioned ways of seeking originality, one needs to focus on their social determinant factors. K.E. Weick (Weick, 1989, p. 516-531; Weick, 2005, p. 394-413) stated that it is essential to discover social choice criteria and assessment criteria related to theoretical propositions, to complement the process of comparing research findings against the objective criterion of truth. One should also focus on relations between a subject matter of the research and opinions expressed by key entities in the academic environment. The support of the latter will help to achieve highly valued scientific originality. Moreover, K.E. Weick (Weick, 1989, p. 516-531; Weick, 2005, p. 394-413) maintains that the original contribution of social sciences is not connected with the confirmation of the knowledge authenticity; it relates to triggering and reinforcing, in the social awareness, connections which no-one suspected. A typical criterion, in this case, is credibility, which might be particularly reinforced by the use of such words as: ‘it is interesting’, ‘it is obvious’, ‘it is meaningless’ or ‘it is absurd’.

Conclusions

The development of scientific knowledge requires some discipline and professional science-related approach. That is why, in order to select a correct research methods for the sake of carried-out research, one is required to be familiar with differences between determined research methods or approaches in social science methodology.

Management methodology combines both cognitive and practical objectives. The objectives may be of convergent character, however, in certain situations they might contradict each other (Gill, and Johnson, 1997). It needs to be mentioned here that many methods combine features of various methods as presented in the above-mentioned classification.

Within the scope of all methods aimed at seeking originality, one should enumerate, as the first step, the necessity to become familiar with the current knowledge. A reliable fulfilment of the condition in question allows to verify the reviews of research ideas or results achieved in previous years (Strużyna, 2016, p. 77).

While determining the research problem it is difficult to select a single method allowing to fully diagnose the given problem. It is necessary to employ diverse research methods allowing

to provide answers to the posed problem. Thus, it is a necessity to make use of numerous methods and research approaches.

A properly elaborated research process allows to achieve scientifically valuable results. Achieving the valuable results also depends on the researcher's ability to select and make use of research methods (Sudoł, 2007).

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