

Research article

THE QUALITY DETERMINANTS OF THE RESEARCH PROCESS IN MANAGEMENT SCIENCES

Henryk Dzwigol

Abstract. The purpose of the article is to identify the quality determinants of the research process in management sciences. Additionally, the author aims to indicate the relationships and differences in the identified determinants of quality depending on the adopted idiographic and nomothetic approach in management sciences. To achieve the intended purpose, the author used the survey data based on an expert group consisting of 401 scientific employees. In addition, a cluster analysis was used to identify the determinants of research process quality, conducted both for the entire sample studied, as well as in individual groups representing the idiographic and nomothetic approaches in management sciences. Based on the conducted research, 7 general determinants of research process quality in management sciences have been identified. In addition, the analysis of the results showed that the determinants of the research process quality are consistent between the idiographic and nomothetic approaches. The main contribution of this article focuses on the developed recommendations regarding the identified determinants. Applying the guidelines presented in the article may result in an increase in the quality of the research process in management sciences, regardless of the adopted research approaches.

Keywords: quality determinants; research process; management sciences; research methodology; research approach.

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1. Introduction

In recent years, the field of management sciences has undergone significant changes and advancements [1,2], with new theories, methods, and approaches being developed to address the complex challenges facing modern organizations [3–11]. Besides, the concept of sustainable development [12–16] has also modified the management research. Management researchers need to conduct high-quality research to keep up with these advancements and to contribute to the field's progress [17]. However, achieving high-quality research is not always straightforward, and researchers need to be aware of the factors that influence the quality of their research.

One of the key quality determinants of the research in management sciences is the skills and knowledge of a researcher [18,19]. Researchers need to have a solid understanding of the relevant theories and methods, as well as the ability to apply them effectively in their research [20]. Additionally, the availability of resources, such as funding, data, and access to participants, can also affect the quality of research. Without adequate resources, researchers may struggle to conduct rigorous and comprehensive studies [21–25]. Moreover, the quality of research design and the rigor of data analysis are crucial factors that impact the quality of research in management sciences. Researchers need to design studies that are robust, valid, and reliable, and they must employ rigorous data analysis techniques to ensure the validity and reliability of their findings.

The above factor directly results from the adopted research process, which is emphasized by many scholars. In addition, comprehending how scientific research can aid in broadening both theoretical and practical knowledge is a significant obstacle for advocates of management sciences [30–34]. The objective of disquisition methods and techniques in management sciences is to comprehend the principles and guidelines that oversee organizations and enhance them [34]. Despite the chosen research method or technique, the scholar must always adhere to a particular research process [35], which comprises various components that must be meticulously planned based on consistent decisions made to ensure the reliability and credibility of research outcomes.

Therefore, the purpose of the article is to identify the quality determinants of the research process in management sciences. Additionally, it aims at indicating the connections and differences in recognized determinants of quality depending on the adopted idiographic and nomothetic approach in management sciences. To achieve the intended goal, the author used survey data based on an expert group of 401 academic staff. Furthermore, to identify the quality determinants of the research process, a cluster analysis was used, which was conducted for the entire sample as well as for individual groups comprising the idiographic and nomothetic approach. By understanding the quality determinants of the research process in management sciences, researchers, practitioners, and policymakers can work together to improve the quality and relevance of management research, thereby contributing to the advancement of the field and the improvement of organizational practices.

2. Literature Review

The objective of research methods and techniques in management sciences is to comprehend the principles and guidelines that regulate organizations and to enhance their effectiveness [36]. A method refers to a deliberate and consistent approach to research that facilitates the accomplishment of the desired outcome [37–47]. On the other hand, a technique refers to a tool or instrument employed to address problems [48]. However, the distinction between method and technique is often blurred in practice, and these terms are used interchangeably in literature, making it challenging to categorize them with precision [37–49].

Irrespective of whether a research method or technique is adopted, a scholar must always adhere to a specific research process that involves careful planning and continual decision-making to ensure the accuracy and validity of research outcomes [50,51]. The research problem is the starting point for developing a research concept, which encompasses several elements. Firstly, it involves analysing the problem in the light of literature on the subject [52]. This includes an exploration of existing research and literature related to the research problem to identify knowledge gaps and ascertain the current state of knowledge. Secondly, it requires the identification of necessary data sources and research methods [53]. This entails determining the most appropriate methods and tools to collect relevant data to address the research problem [54]. The choice of research methods and data sources depends on several factors, including the nature of the research problem, the research design, and the availability of resources. Thirdly, it involves adopting necessary assumptions, hypotheses, and theses. This entails the formulation of preliminary assumptions, hypotheses, and theses, which serve as the basis for the research concept [36,37]. These assumptions, hypotheses, and theses are tentative and subject to revision and refinement during the research process.

The research process involves several stages [55], including data collection, data analysis, and the interpretation of results. The process requires continuous evaluation and decision-making to ensure that the research objectives are achieved effectively [56]. Effective research in management sciences is critical to developing practical solutions to organizational challenges and enhancing organizational performance [57]. Research methods and techniques provide a systematic approach to investigating organizational issues and developing evidence-based solutions to improve organizational effectiveness [20]. Moreover, the research process enhances the research skills of researchers and contributes to the development of knowledge in management sciences.

In the contemporary world of management, there is a growing recognition of the importance of methodological eclecticism in scientific research [59,60]. This approach advocates for the use of both inductive [61] and deductive methods [62], with the aim of gaining a more comprehensive understanding of complex phenomena [11]. It recognizes that in management, there are no clear or final conclusions that can be presented as immutable universal laws. Rather, each analysed phenomenon or problem is unique, and may have several potential solutions that quickly become outdated in the rapidly changing world of business.

Consequently, in the conduct of scientific research, particularly in the field of management sciences, clarity and precision are of utmost importance [63]. Vague and imprecise statements should be avoided, as they can create only the illusion of scientific rigor. Researchers must

carefully analyse the literature related to phenomena and problems of interest to them, and carefully consider the potential solutions proposed by other researchers. To ensure the veracity of their findings, researchers must be guided by the principle of intersubjective verifiability [20,64], which requires that the results of other researchers' studies be rigorously tested and verified [65].

O'Leary [48] and Labarca [49] highlight the significant challenge faced by management science proponents in comprehending how scientific research can contribute to expanding theoretical and practical knowledge. The limited applicability of research results to management science and practice often relates to the issue of knowledge transfer [66]. It can be assumed that practical knowledge in organizational management stems from scientific knowledge, and thus, the translation and diffusion of research results are crucial for practice [53,67]. However, this is only possible when the research process is appropriately conducted using suitable research methods [68], including a narrative approach that emphasizes organizational discourse [69]. The process of creating theoretical knowledge, whether in a narrative approach or not, should enable the explanation of key research issues, thus facilitating the understanding of complex organizational phenomena [70]. This understanding could be achieved through effective communication and the dissemination of research findings, which requires the adoption of a clear and concise language that avoids technical jargon and vague statements that may create the illusion of scientific rigor.

The cycle of the research process is a phased and staged framework for cognitive procedures that is appropriate for analytical and project-implemented research. It is a complex action that involves posing and solving theoretical and practical problems, resulting in specific statements, rules, assessments, and projects. Each research process must begin with identifying a research problem and end with finding the most optimal solution for it. All conducted research involves the need to accomplish many tasks, consisting of various activities. The way in which individual activities, and thus tasks, are carried out depends on the thematic area in which the research is conducted, among other factors such as the methodology adopted, and the research methods used [71]. Research is a multi-element process that requires careful consideration and planning in such a way that the diligence and accuracy of the obtained results cannot be questioned.

3. Methods

The purpose of the article is to identify the quality determinants of the research process in management sciences. Additionally, it aims at identifying the links and differences in recognized determinants of quality depending on the adopted idiographic and nomothetic approach in management sciences.

For the purposes of achieving the intended goal, additional specific goals related to the adopted research process were adopted:

- E1: Identification of quality determinants of the research process in management sciences.
- E2: Recognition and comparative analysis of quality determinants of the research process in idiographic and nomothetic approaches.

- E3: Operationalization of identified determinants according to current literature on the subject.
- E4: Development of recommendations for increasing the quality of the research process in management sciences.

In order to reach the intended goal, the author carried out a global quantitative study on a group of expert academic researchers who were involved in conducting research in the field of management sciences. The questionnaire was developed after reviewing relevant literature on research methodology and having discussions with other scholars. The survey was divided into three parts. The first section consisted of five questions that asked about the importance of various approaches, processes, methods, and techniques used in the research process in management sciences. The second section contained 33 questions related to improving the research process. The third section was based on metrics and contained three questions. The questionnaire was primarily made up of closed-ended questions arranged in a matrix format with a five-point Likert scale, which helped to streamline the process of completing it.

For the purpose of this article, the statistical analyses performed focused only on the 33 questions included in the second section of the survey. The survey employed a theoretical sampling method that involved selecting experts who had the best understanding of the subject matter under study [72]. The study was carried out on a global scale, and a survey questionnaire was distributed to over 23 thousand academic researchers associated with management sciences. To ensure that the sample was representative, the sample size was calculated based on assumptions such as: a fraction indicator: $p=50\%$, an error size related to the fraction indicator: 5% , and a significance level $\alpha: 0.05$. After the calculations, the minimum number of questionnaires required was 385. The research ultimately surveyed 401 management science experts, satisfying the criteria for sample representativeness.

In order to achieve the research objective, the obtained sample was divided into two groups based on appropriate idiographic and nomothetic approaches. The number of experts who declared using the idiographic approach was 239, which accounted for 59.60% of the total respondents. On the other hand, 162 researchers, representing 40.40% of the respondents, declared using the nomothetic approach.

4. Results

To identify the determinants of research process quality in management sciences, data segmentation or grouping was employed using a cluster analysis, a widely used method for data exploration [53]. This approach aims to create clusters of similar objects within the same group while maintaining dissimilarity with those in other groups [73]. The analysis was conducted based on specific methodological assumptions, only including questions directly impacting the research process. A total of 33 questions were selected, which were measured on a five-point scale. The primary statistical characteristics of the chosen factors are displayed in Table 1.

Table 1. The primary statistical characteristic of the variables.

Variable	Symbol	M	SD
Supporting the practice of economic life is the goal of the Management Sciences discipline.	P1	4,364	0.817
The researcher should provide models of effective solutions in the area of organization and management.	P2	4,352	0.783
The researcher should provide methods to implement patterns of effective solutions.	P3	4,227	0.797
The research work conducted within the discipline of Management Science should be embedded both in theoretical and practical terms.	P4	4,317	0.850
The main downside associated with the Management Sciences is not the instability of the statements made.	P5	3,723	1.049
The variables dependent on e.g.: atmospheric, legal, social, environmental conditions, etc. are often the objects of research.	P6	3,776	0.997
The complexity of research facilities (e.g., enterprises) can negatively affect the credibility of research results.	P7	3,653	1.126
The inclusion of factors of a qualitative nature, difficult to measure, can affect the quality of the research process.	P8	3,828	1.074
The proposed and applied methods are assessed differently by theoreticians and management practitioners.	P9	4,057	0.851
There are problems with verifiability of the results of scientific research conducted in the discipline of Management Science.	P10	3,953	0.895
Cooperation between science and business practice should be strategic in the management process of a contemporary enterprise.	P11	4,222	0.859
The time spent between managing the problem, its analysis and finding a solution, and implementation can negatively affect the effectiveness of the solution in the Management Sciences.	P12	3,838	0.991
There is no universalism of developed concepts or solutions to problems in Management Sciences.	P13	3,486	1.116
Methodological triangulation is a necessary condition in research processes.	P14	3,736	0.957
Quality methods in research processes should be supported by case studies.	P15	4,035	0.812
It is necessary to verify the developed methods, procedures or models in practice in order to make testing credible.	P16	4,150	0.832
Pilot studies are heading towards the research process.	P17	4,185	0.739
It is necessary to develop a model, procedure, tool, or approach to the research process.	P18	4,202	0.835
The researcher has the possibility to choose methods in terms of the nature of the conducted research.	P19	4,267	0.668
The researcher influences the combination of quantitative and qualitative methods in the research process.	P20	4,229	0.719
Pilot studies have an impact on the course of the research process.	P21	4,190	0.688
The development of a model, procedure, tool or approach in the research process is not necessarily a guarantee of the reliability of results.	P22	3,526	1.102
It is necessary to develop assumptions to create a research methodology.	P23	4,155	0.837

Variable	Symbol	M	SD
The development of recommendations for learning and management practice based on research results raises the quality of science and practice.	P24	4,219	0.807
The developed model, procedure, tool, or approach to selecting methods in the research process has a significant impact on the quality and applicability of research results.	P25	4,195	0.712
Selected quantitative and qualitative methods should be analysed for the initial selection after the research problem is identified.	P26	4,292	0.705
Pilot studies form an integral part of any research process.	P27	3,721	1.045
The verification of the developed methods, models or procedures is an indispensable condition to combine learning and management practice.	P28	4,010	0.903
Methodological triangulation supports research processes.	P29	4,110	0.727
The case study gives the possibility of a deep analysis of the research problem.	P30	4,077	0.844
Group expert assessment should be the basic method for verifying the direction of the conducted research.	P31	3,616	1.011
Observing the conducted research in natural conditions, where the researcher cooperates with the surveyed entities, is important.	P32	4,077	0.766
Observational interventions that take place as part of managerial actions in the studied entities and where the researcher has a direct influence on the decisions made are important.	P33	3,833	0.900

Source: developed by the author.

Given the requirements of this research, the methodological principles of a cluster analysis as described by Granato et al [73], the utilization of a five-point rating scale, the unprocessed state of the data, and the expert evaluations that were subjective in nature during the study process, the following approaches were employed:

- Urban distance (Manhattan, City block) – Sum of absolute differences between position values. In most cases, this distance measure provides similar results to the regular Euclidean distance. However, it should be noted that in the case of this measure, the influence of individual large differences (outliers) is suppressed due to not squaring them Granato et al [73].
- The method chosen for grouping objects was the Ward method, which falls under the category of hierarchical methods. This method determines distance through an analysis of variance approach, as emphasized by its effectiveness and popularity according to the studies [53,73–75].
- Literature suggests using several measures to determine the number of clusters [76,77]. For the purposes of the analysis being conducted, it was decided to use two of them:
- identification of the maximum of the measure

$$g_i = d_i - d_{i-1} \quad (1)$$

- calculation of the T. Grabiński measure [32]

$$q_i = \max\left(\frac{d_i}{d_{i-1}}\right) \quad (2)$$

where d_i is the length of the i -th branch of the tree

The following sections present the results of the analysis conducted while maintaining the above methodological assumptions for the entire population, as well as for grouping based on the adopted idiographic and nomothetic approaches.

4.1 The quality determinants of the research process for the entire population of researchers being studied

Based on the assumptions adopted, an agglomeration of 33 variables (Table 2) was obtained in 32 steps for the general determinants of the quality of the research process in management sciences. To determine the number of clusters and make a decision on where to cut the dendrogram, the assumptions of the individual indicators were calculated:

- The maximum measure indicator was 434.329.
- The T. Grabiński indicator was 1.757.

Based on the obtained results, a decision was made to choose 7 clusters (Fig. 1) by cutting the dendrogram at a linkage distance of 434.329. After operationalizing the obtained linkages with regard to the variables that determine them, they were named as follows:

- S1 – Assumptions in the process of building a research methodology.
- S2 – Assumptions for the research process.
- S3 – Reliability of the research process.
- S4 – Complexity of the research process.
- S5 – Factors determining the success of the research process.
- S6 – Course of the research process.
- S7 – Approach in the research process.

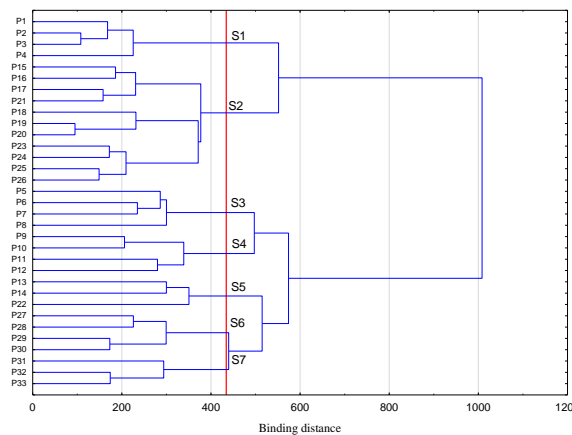


Figure 1. Classification of variables based on the identified quality determinants of the research process in management sciences.

Source: developed by the author.

4.2 The quality determinants of the research process in the idiographic approach

The idiographic approach concentrates on the individuality and exceptional qualities of every case or phenomenon being investigated [78]. Rather than striving to make universal conclusions that can be extended to a broader population, this approach aims to obtain an in-depth comprehension of the particular circumstances and environment of each case.

In order to define the quality determinants of the research process using an idiographic approach, exactly the same analytical procedure was adopted. Based on the results of calculations of the adopted measures, a decision was made on the cut-off point of the dendrogram. In the case of the measures of the difference distance ($g_i = 287.7326$) and the product distance ($q_i = 1.8504$), the splitting point indicates the highest value of the indicator. The clustering of the identified four determinants of research process quality in the idiographic approach is presented in Figure 2.

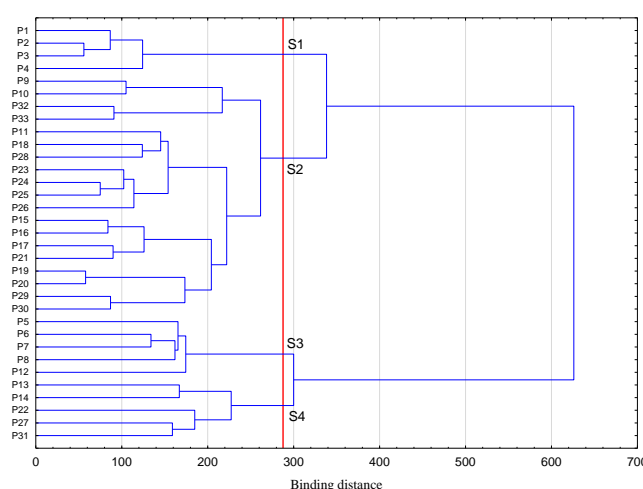


Figure 2. Classification of variables based on the identified quality determinants of the research process in the idiographic approach

Source: developed by the author.

After operationalizing the obtained linkages with regard to the variables that determine them, they were named as follows:

- S1 – Assumptions in the process of building a research methodology.
- S2 – The quality of the research process.
- S3 – Reliability of the research process.
- S4 – Factors determining the success of the research process.

4.3 The quality determinants of the research process in the nomothetic approach

The goal of the nomothetic approach is to recognize universal principles, laws, and theories that can account for behaviour in a more extensive population or group of cases [30,79]. It endeavours to expose regularities and connections that remain steady across various cases or circumstances [80].

Similarly, to the other analyses, a decision on the cut-off point of the dendrogram was made based on the results of the calculated measures. The value of the difference distance measure was 248.248, while the value of the product distance measure was 1.956. For the nomothetic approach, the clustering identified only 3 determinants of research process quality (Fig. 3).

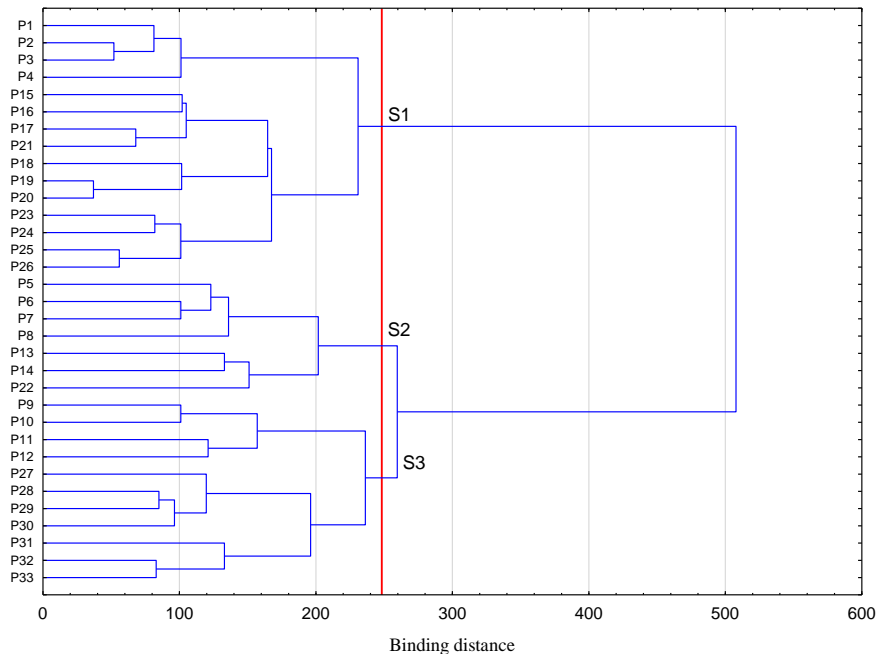


Figure 3. Classification of variables based on the identified quality determinants of the research process in the nomothetic approach.

Source: developed by the author.

After operationalizing the obtained linkages with regard to the variables that determine them, they were named as follows:

- S1 – Assumptions in the process of building a research methodology and the research process
- S2 – Reliability of the research process and factors determining the success
- S3 – The quality of the research process

5. Discussion

In the ensuing discussion, the author endeavours to elucidate the identified determinants of research process quality in the field of management sciences, while also providing recommendations to augment the level of research process quality.

S1 – Assumptions in the process of building a research methodology

Research methodology is the backbone of any research and plays a critical role in achieving the objectives of the Management Sciences discipline. The primary objective of this field is to support the practice of economic life, which requires the researcher to provide effective

solutions in the area of organization and management [81–85]. However, providing solutions is not enough. The researcher must also provide methods to implement these solutions, ensuring that the research work conducted within the discipline is practical and grounded in theory.

To achieve this, the researcher must make valid and reliable assumptions during the development of the research methodology. These assumptions form the basis of the study and influence the research outcomes. Therefore, it is crucial to ensure the accuracy and appropriateness of these assumptions to avoid questionable results and ineffective solutions being proposed. A poorly constructed research methodology may lead to incomplete or biased data collection, which can significantly impact the validity of the study.

The Management Sciences discipline requires researchers to provide models of effective solutions that can be applied in both theoretical and practical terms. This means that the research must be reliable, consistent, and grounded in sound theories and practices. The importance of a well-constructed research methodology cannot be overemphasized, as it determines the success of the study and the quality of the proposed solutions. Ultimately, the goal of the Management Sciences discipline is to provide practical and effective solutions that enhance the practice of economic life. Achieving this objective requires a rigorous and systematic approach to research methodology.

S2 – Assumptions for the research process

Assumptions play a vital role in research, and they can take various forms, such as related to research design, data collection methods, sampling techniques, or data analysis procedures. The validity and reliability of these assumptions are critical to the overall quality of the research process and its outcomes. Assumptions should be formulated carefully and should be based on a thorough understanding of the research problem and the available literature. Case studies should be used to support the use of qualitative methods in research to ensure that the research is credible and applicable.

Pilot studies are essential components of the research process as they help shape the direction of the study and ensure its success. Pilot studies can identify potential problems and help refine research methodologies. Researchers must develop effective models, procedures, or approaches based on the nature of the research being conducted to ensure that the research is successful. Researchers have the freedom to choose methods based on the nature of the research, and this choice can affect the combination of quantitative and qualitative methods used in the study. In addition, quantitative and qualitative methods should be analysed initially for suitability after identifying research problems. This analysis can help ensure that the selected methods are appropriate for the study.

The research assumptions are crucial for quality research, and effective models, procedures, and approaches are critical to ensuring research success. Researchers must carefully formulate assumptions, use case studies to support quality methods in research, conduct pilot studies, and select appropriate methods to ensure the research validity and reliability. Finally, recommendations for practice based on research results can raise the quality of both science and management.

S3 – Reliability of the research process

Reliability is one of the essential determinants of the research process, and it refers to the consistency and stability of research outcomes. It is crucial that research results can be replicated to demonstrate the reliability of the process. However, the complexity of research facilities, such as enterprises, can negatively affect the credibility of research results. This is because various factors that affect the research process, such as social [86,87], environmental [88–92] and economic conditions, can change over time, thereby affecting the reliability of the results. Furthermore, the inclusion of qualitative factors that are difficult to measure can affect the research quality. Therefore, it is essential to incorporate reliable and valid measures that accurately represent the concepts under study to ensure the research credibility.

It is worth noting that the main downside associated with management sciences is not the instability of the statements made. Rather, it is the complexity of the research facilities and the difficulty in accurately measuring qualitative factors. These factors can make it challenging to establish causality between the variables under study, leading to inaccurate or incomplete conclusions. To ensure reliability in the research process, scholars must choose appropriate research designs, data collection methods, and data analysis procedures that accurately capture the concepts under study. Additionally, pilot studies can help establish the reliability of the research process before embarking on the actual research study. Overall, maintaining reliability in the research process is essential to ensure that the research results accurately represent the concepts under study and can be replicated in future studies.

S4 – Complexity of the research process

The complexity of the research process in the field of Management Science is affected by various factors such as the research design, data collection methods, and data analysis procedures. However, the assessment of the proposed and applied methods may differ between theoreticians and management practitioners, leading to potential discrepancies in research outcomes. Moreover, the verifiability of scientific research results in Management Science can be challenging, leading to potential doubts about the research validity and reliability.

To overcome these challenges, there needs to be strategic cooperation between science and business practice in managing contemporary enterprises. This collaboration can help bridge the gap between research and practice and ensure that research outcomes are applicable in real-world settings.

Another factor that can negatively affect the effectiveness of solutions in the Management Sciences is the time spent between a problem of management, its analysis, finding a solution, and implementation. It is crucial to minimize the time spent between these stages to ensure that solutions are timely and effective.

Therefore, the complexity of the research process in Management Science should be carefully considered, and efforts should be made to ensure that proposed and applied methods are valid, reliable, and applicable in practice. Collaboration between science and business practice is essential, and timely implementation of solutions is critical for effective management.

S5 – Factors determining the success of the research process

In addition to the existing assumptions, there are further factors that can impact the success of the research process in the field of Management Sciences. Firstly, it is important to recognize that there is no universalism of developed concepts or solutions to problems in Management Sciences. This means that solutions or concepts developed in one context may not be suitable for another context. Secondly, methodological triangulation is a necessary condition in research processes. This involves using multiple methods to collect data in order to enhance the validity and reliability of the research outcomes. Thirdly, the development of a model, procedure, tool, or approach in the research process is not necessarily a guarantee of the reliability of results. The suitability of the model, procedure, tool or approach must be assessed in the context of the research problem and the available resources.

The success of the research process in the Management Sciences is influenced by various factors such as the quality of the research methodology, the skills and expertise of the research team, the availability of resources, and the suitability of the research environment. It is important to consider these factors and additional assumptions such as the lack of universalism of concepts, the necessity of methodological triangulation, and the need for efficient implementation processes to ensure the reliability and applicability of research outcomes.

S6 – Course of the research process

In the context of management sciences, the course of the research process can impact the quality of the research outcomes in several ways. For example, if the research process is poorly designed or executed, the research findings may not accurately reflect the reality of the situation being studied.

On the other hand, a well-structured research process, which includes elements such as pilot studies, methodological triangulation, and case studies, can help to ensure that the research outcomes are reliable, valid, and applicable in real-world settings. As a result, the quality of the research is improved, and the likelihood of making informed decisions based on the research results is increased.

S7 – Approach in the research process

In addition to the philosophical and methodological approach, there are other assumptions that can impact the research process and outcomes. One such assumption is that group expert assessment should be the basic method for verifying the direction of the conducted research. This means that the research direction should be determined through consultation with experts in the field, who can provide valuable insights and ensure that the research is heading in the right direction.

Observing the conducted research in natural conditions, where the researcher cooperates with the surveyed entities, is also important. This allows the researcher to gain a deeper understanding of the subject matter by observing it in its natural setting, rather than relying solely on data and information collected through surveys or other methods.

Another important assumption is that observational interventions that take place as part of managerial actions in the studied entities and where the researcher has a direct influence on the decisions made are important. This means that the researcher should be actively involved in the decision-making process within the studied entities, and that their interventions should be observed and studied in order to determine their impact on the outcomes of the research.

These assumptions underscore the importance of a comprehensive and collaborative approach to the research process, which takes into account not only the philosophical and methodological approach, but also the context in which the research is conducted and the role of the researcher in shaping its outcomes.

6. Conclusions

The article is aimed at identifying the factors that influence the quality of the research process in management sciences. Additionally, the author sought to examine the similarities and differences in these factors between the idiographic and nomothetic approaches in management sciences. The author used survey data from a group of 401 scientific employees and conducted a cluster analysis to identify the quality determinants of the research process for the entire sample and for individual groups representing the two approaches.

The analysis of the results showed that the quality determinants of the research process are consistent between the idiographic and nomothetic approaches. The author focused on analysing and making recommendations for seven general determinants, including assumptions in research methodology development, assumptions for the research process, research process reliability, research process complexity, factors determining research process success, research process course, and research process approach.

It is important to note that the accuracy and appropriateness of assumptions made during research methodology development are crucial to avoid questionable results and ineffective solutions. Researchers should develop effective models, procedures, or approaches based on the nature of the research being conducted to ensure successful research.

Reliability is a critical determinant of the research process, referring to the consistency and stability of research outcomes. Researchers should choose appropriate research designs, data collection methods, and data analysis procedures that accurately capture the concepts under study to ensure the credibility of the research.

Various factors affect the complexity of the research process in management science, including research design, data collection methods, and data analysis procedures. Strategic cooperation between science and business practice is necessary to manage contemporary enterprises effectively. Additionally, time spent on problem management, analysis, finding a solution, and implementation should be minimized to ensure timely and effective solutions.

The survey findings should be interpreted with caution as the research had limitations. The study was conducted on a particular group of specialists, which may impact the interpretation of the results. Additionally, the investigation relied solely on surveys as its source of data, potentially affecting the scope of the outcomes. Future research should include a wider pool of

participants and diverse data sources, such as interviews and observations, to overcome these limitations.

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