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## The case study– a useful research strategy in the field of military sciences

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### Abstract

This article argues for the usefulness of adopting the case study as an effective and sufficient strategy from the perspective of developing research papers in the field of Military Science. In the first stage, using Saunders' model, I showed the logical course of a researcher's reasoning up to the moment of establishing a suitable research strategy according to his object of study, the topic of interest or the problem formulated at the initiation of the scientific approach. Afterwards, I justified the motivation for choosing the case study as a research strategy, bringing to attention the main advantages and disadvantages that it entails. I thus had two objectives in writing this article: to emphasize the importance of clarifying and establishing certain research design, exemplified by going through the layers of Saunders' model, and subsequently to highlight the versatility and flexibility of the case study as a research strategy, as it is accepted and used in all fields of scientific research.

### Keywords:

case study; research strategy; research methodology; Saunders' model.

### Article info

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In realizing this article, I used the documentary analysis method, a method specific to qualitative research (Okoko, Tunison and Walker 2023, 140), to systematically review and evaluate the documentary sources in order to select, understand and synthesize the data contained about what the research strategy represents, focusing on the case study. Documentary analysis facilitated the collection, examination and interpretation of data regarding the conduct of case studies in scientific research, in order to subsequently understand their usefulness and how to capitalize on them in the field of military sciences in order to generate knowledge.

My purpose in this article is to bring to the attention of the novice researcher the rationale of Saunders' model, which he or she could use in establishing a viable research strategy in his or her own scientific endeavour. In my view, this model can be an important source of inspiration in approaching scientific research design. The initial temptation of the researcher is to directly address the research question or problem posed in his paper in order to establish a suitable research method, tool or technique, but by understanding Saunders' model, he will be guided towards a step-by-step process of establishing these research methods, tools or techniques. In this way, the concrete method of data collection and analysis - the central element of Saunders' model - ends up being "discovered", after the progressive passage of each layer and the clarification of the aspects related to the *research philosophy*, the *approach* with the related *methodological options*, *research strategy* or *time horizon*, applicable to the research in question.

The relevance of using the case study as a research strategy in military science lies mainly in its usefulness. It can provide a complete description of an entity or a phenomenon – the object of study, and facilitates an in-depth understanding of the characteristic aspects but also of the context in which the object of study manifests itself. From another perspective, the case study is used to describe both current practices and innovative practices adopted by an organization, but it is also suitable for analyzing the difficulties and benefits arising from the implementation of new tactics or procedures at the organizational level.

## 1. The path to choosing *the case study* as a research strategy

The decision to develop knowledge in a field of study is the foundation of any research project undertaken within scientific commitments, and in trying to clarify his scientific approach to large-scale work, the researcher will probably encounter in his initial searches the "research onion" model proposed by Mark N. K. Saunders, Philip Lewis and Adrian Thornhill (Saunders, Lewis and Thornhill 2019, 130). Although, in the beginning, the temptation of any researcher is to enter directly into the stage of collecting and analyzing data about the subject or thematic field considered "interesting", I believe that going through the other stages - the layers of Saunders' model - is mandatory to clarify essential aspects regarding the research

and the researcher such as the contextual paradigm, the approach type or the nature of the scientific approach carried out.

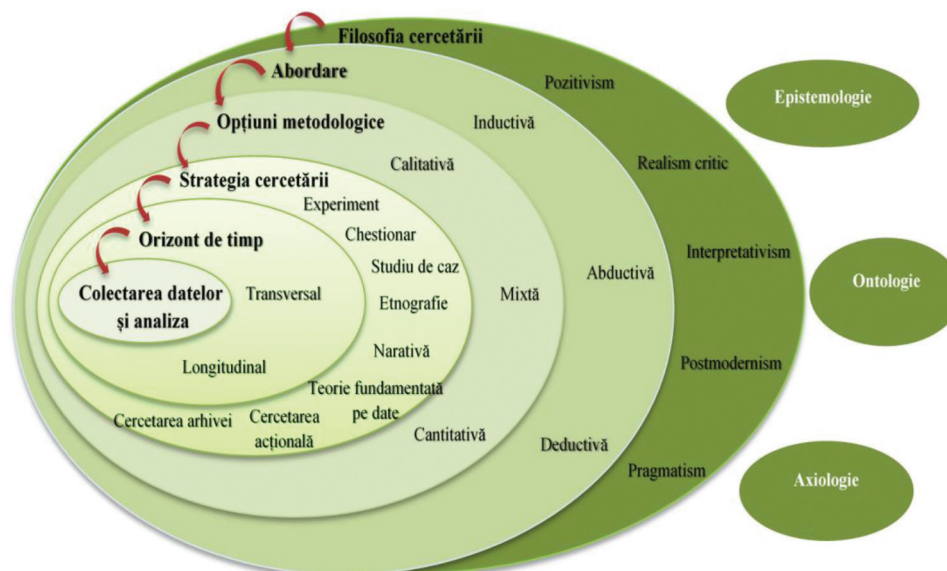


Figure 1 The „research onion” model  
Source: [Studypool 2021](#)

According to this model, scientific research is multidimensional, and the first step (**the first layer**) in this endeavour is the clarification (or awareness) of the aspects related to the outer layer, that of the *research philosophy* - ontology, axiology and epistemology. In essence, the ontological dimension aims at the knowledge that describes *reality*, the epistemic dimension aims at the validity of the sources of knowledge of this reality and the axiological dimension considers the influence of personal values on the research. Conscious or not, the preconceived ideas regarding these dimensions will influence the process of knowledge development in the field of study (in all its stages) since the “*discovered*” aspects of reality are inevitably viewed through the prism of the researcher’s own values. For these reasons, it is necessary, from the beginning of the scientific approach, for the researcher to understand his own philosophical perspective, namely the *paradigm*.

According to Thomas S. Kuhn, paradigms are scientific realizations that provide models for formulating and solving problems for a group of researchers and constitute complex entities comprising elements of a theoretical, instrumental and methodological nature ([Kuhn 2008](#), 19). These paradigms include tacit knowledge (as he called it), different from theoretical knowledge - from scientific statements and theories, based on which a researcher unconsciously models the formulation and solution of his or her own problem.

The main paradigms in which a researcher can be found are positivism, interpretivism and pragmatism, these emphasizing either the objectivity of reality that can only be observed, the influence of the sociocultural environment on

individuals or, respectively, the importance of using the most suitable tools in the process of research ([Phair and Warren 2021](#)).

Once the paradigm is clarified, the focus will be on the entity – the object of study, which can be represented by individuals, collectives, organizations (formal and informal), institutions, activities and social events, objects or activities with impact in the cultural field ([Haydam and Steenkamp 2020](#), 310). As we can see, the mentioned entities are also relevant in the field of military sciences and their clear determination as the object of the case study will further guide the research process. Although, in the field of military sciences, the beneficiary of the scientific results can establish from the beginning, through the formulated theme, the entity – the object of study, other aspects mentioned above remain relevant, therefore being necessary to clarify (raise awareness on) the paradigm in which the researcher is situated.

The entity object of study together with the formulated (identified) problem represent guiding elements to understanding the nature of the scientific research to be carried out. Choosing fundamental research to the detriment of applied research or vice versa is generally a decision made based on the two mentioned guiding elements. In terms of the **approach (the second layer)** to one's endeavour, the researcher needs to understand that *inductive* approaches involve generating theories from research rather than starting a project based on a theory, whereas *deductive* approaches start with a theory and seek to build on (or test) it through research ([Phair and Warren 2021](#)). Theories are built through induction and tested through deduction. The importance of clearly identifying the approach resides in the fact that it constitutes the basis of the actual scientific research activity, and will influence every stage of the researcher's decision regarding the concrete way of data collection and analysis within his study.

The **methodological choice (the third layer)** is directly dependent on the **approach** because, at this point, it will be clear to the researcher whether his scientific approach builds on something that is already there, that has a solid theoretical foundation or explores new directions that are not theoretically covered and that were not previously investigated. *Qualitative* research usually involves an inductive approach and focuses on the collection of text, audio or video data, while *quantitative* research aims to collect numerical, and statistical data about the object of study.

Establishing the **research strategy (the fourth layer)** comes to practically clarify, based on the proposed objective, the way the research process will be carried out. Due to the fact that *the case study* as a research strategy is the object of this paper, I did not address the other research strategies. I have tried further to argue the usefulness of this strategy in the field of military sciences because I consider it to be an easy tool, within the reach of any of us. The motivation for choosing the case study as a research strategy as well as the inherent advantages or disadvantages of this choice have been detailed in the following sections.

Once the case study is determined as a research strategy, one can opt for any combination of content elements in the following layers of Saunders' model. The **time horizon** can be both *cross-sectional* and *longitudinal* and the concrete methods of **data collection and analysis** will be chosen depending on the purpose and the concrete conditions for carrying out scientific research, the palette being quite comprehensive: *interview, questionnaire, direct observation, documentary analysis, content analysis, etc.*

## 2. Reasoning for choosing *the case study* as a research strategy

The researcher may choose to use *the case study* as a research strategy if, for example, he or she intends to study in detail a person, a group, an institution, an event or a phenomenon in order to gain an in-depth understanding of its characteristic aspects and to be able to later generalize what has been "discovered". It is worth mentioning that such a decision may provide clues about the path through the layers of Saunders' model since, from this perspective, the case study will also consider the social or cultural context of the object of interest and will usually be situated in the sphere of *qualitative* research.

From another perspective, an argument for choosing the case study in the military sciences is that it is considered an appropriate research strategy to answer research questions formulated using *How...?* or *Why...?* ([Pathirana, Jayatilake and Abeysekera 2020](#), 364) In these situations, events unfolding in an organizational context, events over which the researcher has little or no control, can be analyzed in depth.

In terms of research questions, case studies can be of three types: explanatory, exploratory and descriptive. Thus, the case study can be an appropriate research strategy to explain causal relationships in order to theorize about the object of study, to explore particular situations or processes, and also for descriptive analysis of cause-effect relationships.

Other specialists ([Collis and Hussey 2021](#), 61) mention four types of case study approaches: descriptive, illustrative, experimental and explanatory. While the descriptive case study aims to describe current practices, the illustrative case study is a research study of new and innovative practices adopted by some organizations. The third type, the experimental case study focuses on the difficulty of implementing new tactics or procedures in an organization in order to evaluate the benefits gained. The explanatory approach involves using existing theory to understand and explain what is happening in the case. The brief explanation of possible approaches through the case study demonstrates that such a research strategy is readily applicable to the military sciences.

Process tracing is a commonly used method in the military sciences, and is exploited in identifying causal relationships or testing hypotheses about causal relationships

(Venneson and Wiesner 2014, 93). Process tracing is suitable for determining causal mechanisms and explaining cause-effect relationships to thereby understand how a particular outcome was reached. The case study using process tracing can be conducted as a step-by-step test of the causal mechanism as opposed to a simple description of the events of the case under study (Beach and Petersen 2013, 5).

Another argument for choosing *the case study* as a research strategy is that it allows for an empirical investigation of a contemporary phenomenon in its context of manifestation (Hinkelmann and Witschel 2013). Through case study one can develop and deepen knowledge about aspects of the real world by coming, as I mentioned, with the answer to the questions *How...?* or *Why...?* is happening what is happening, taking also into account the contextual conditions relevant to the phenomenon under study.

A final argument, which I consider to be elementary, is the ease with which the case study can be understood and used as a research strategy. Each of us frequently uses case study principles when we refer to a person, when we relate an anecdote or an illustration of an incident, or when we relate personal experiences. Case study elements can be found also in short stories - commonly used in journalism, but also in various works exploring a phenomenon and its effects, where the author illustrates what is told with “lived” examples. The common aspects are the abundance of details of time, place, incidents and multiple experiences, and these aspects are also valid for scientific research through case studies. Because of its everyday exposure and frequent use, people generally associate case studies with storytelling. To be considered research however, storytelling must be a systematic investigation with the aim of generating evidence that will subsequently lead to the “discovery” of new knowledge in the field of study.

A simple way of phrasing case study research could be as follows (Collis and Hussey 2021, 61):

1. Selecting the case
2. Preliminary investigation
3. Data collection
4. Data analysis
5. Writing the report

Case selection is directly dependent on the entity being studied and the problem formulated at the time the research was initiated. Most likely a critical case will be selected that encompasses the issues of interest to the research. A selection of several similar cases may also be made if the objective is to demonstrate a generalization of the theory formulated. The choice of multiple cases is associated with performing multiple experiments. They may lead to similar or contrasting results depending on the objective of the research – to generalize a theory or to extend (modify) it.

Preliminary investigation is the process of familiarizing oneself with the context in which the research is conducted. Whether or not the researcher is initially familiar

with the field of study has advantages and disadvantages in both cases. It is the established purpose of the research and the awareness of the paradigm in which the researcher finds him/herself that matters at this point.

Data collection can be carried out by any of the methods outlined above that the researcher considers appropriate, but the most commonly used in the case study are documentary analysis, interview and observation. The sources of evidence (Chelcea 2022, 477) should be combined to ensure a high degree of reliability and validity of the study and the results obtained through this approach.

Data analysis may also be carried out by any method considered appropriate in relation to the purpose and concrete conditions of the case study. If the study concerns a single case, full familiarization of the researcher with the material is necessary in order to be able to construct detailed descriptions of the events or phenomena with a view to identifying patterns in their manifestation. The study of several cases should highlight those similarities and differences that assist the researcher in identifying common patterns.

Writing the report can become a challenge when searching for the most appropriate structure to demonstrate the relationship between analysis and obtained results with the multitude of data and information collected. The chronological approach is the easiest and, obviously, the most commonly used as it allows for a narrative of the unfolding of events as they happen.

### **3. Advantages and disadvantages of using *the case study as a research strategy***

A primary advantage of using the case study as a research strategy in military science is that it can be both *factual* and *fictional* in nature.

The factual case study deals with real (existing) entities or phenomena involving people, organizations or processes of interest to the researcher or the beneficiary of the study results. This type of case study has the advantage that it is based on realistic, practical events or solutions that can be verified. The usefulness of the factual case study in the military sciences can also be seen in the answers to the research questions, as mentioned above, such as *How...?* or *Why...?* and which concern military organizations, such as: *How did the military structure (object of study) solve a certain problematic situation?* or *Why did the solution (object of study) work in one military structure and did not work in another?*

The fictional case study is based on real (existing) entities or phenomena but, for various objective reasons, presents imaginary events and organizations, thus acquiring a purely theoretical character. This type of case study has the advantage, which can also be observed in military exercises, of facilitating, for example, the elaboration of problematic events or situations to be effectively solved (object of study) by military structures.

Another major advantage of using case studies as a research strategy is the lack of constraints on the use of certain scientific research methods or tools. Case studies are not method-dependent and are not constrained by time or resources (Leavy 2014, 458). It can be carried out over several years to explore changes in the field of study in order to explain what and why things have happened, but it can also be carried out over short periods to capture the actual, the contemporary. The case study is thus characterized by a high degree of flexibility which can be extended to the way in which the results obtained are recorded or communicated. The knowledge “discovered” through case studies in the military sciences can be recorded or communicated both in academic language, and in a consistent work, but can also be disseminated in the form of lessons identified – a concept also common in this field, to improve the work or performance of military structures in general.

### **Case study limitations**

Due to the deliberate selection of the cases studied, there is a risk of bias as there can always be a motivation or justification for the choice made. This can have both positive and negative influences on the way research is conducted and should always be recognized and assessed.

The data obtained are usually unique and specific to the object or phenomenon being studied and the conclusions researchers draw may be difficult to generalize. Sometimes the very validity or reliability of the research itself can also be a challenge. Furthermore, the conclusions of case study research are seen as rather subjective, which is why some sceptics in the quantitative research community consider it to be an *unscientific* method of research (Okoko, Tunison and Walker 2023, 70). However, the case study is one of the most widely used and accepted research methods or strategies in all fields of scientific research.

A disadvantage of using case studies as a research strategy is the uniqueness of the case being studied. There is a belief that only studying a sufficient number of identical cases can truly generate knowledge in the field, which is not universally true. A comprehensive and detailed description of a case that those interested in the military field are familiar with will highlight to the reader the similarities to or differences from what is known about that case or its particular context. In other words, military specialists will understand what is being described and the context in which the case being studied is manifested, will have their own interpretations and associations about their own experiences, and will thus gain knowledge and gain a new perspective on what is being studied. Another useful outcome can be observed when the researcher and the reader alike find that certain key concepts or processes addressed through the study of a single case are transferable, with the possibility of encountering them in other cases or contexts.



On the other hand, another disadvantage of using the case study strategy in the military sciences is the sensitive nature of the “truth” discovered, which, by being publicly revealed, could put the researcher, the beneficiary of the study or the military institution in general in a difficult position. This aspect can also be emphasized by the fact that the temptation for the researcher in the field of military science is to exploit data and information about the subject of the study or the “discovered truth” which can be classified or which, although unclassified, cannot be published and cannot receive the necessary approval from the security structures of military institutions.

The subjectivity of the researcher or participants in the study can be another disadvantage of the case study, which is valid in many other research methods, especially those specific to qualitative research. This can be seen as a research bias that needs to be countered; however, a dose of subjectivity is necessary in case studies to understand and interpret the perspective or experiences of the study participants. By implementing effective measures and procedures to discipline subjectivity in order to ensure the validity of the study participants’ representations of the “truth”, the researcher can demonstrate a reflexive approach by monitoring the potential influence of his/her own perceptions and values on the data collected, analyzed or interpreted.

## Conclusions

The case study can be a research strategy available to any researcher regardless of their field of interest. Conducting a case study is a familiar, small-scale application of what we experience on a daily basis, each of us consciously or unconsciously going through the characteristic steps of case studies. Perhaps this is one of the reasons why case studies are one of the most widely used and accepted research methods or strategies in all areas of scientific research.

As I have shown, by going through the layers of Saunders’ model, the researcher in military sciences will arrive at the moment of determining the research strategy and, depending on the object of study and the problem formulated, can exploit the advantages of the case study, having the freedom to choose the most appropriate methods and tools as well as the flexibility to record or communicate the “findings” and results obtained from his scientific endeavour. As for the disadvantages of using case studies as a research strategy, these must first be recognized and then mitigated in terms of influence, by implementing effective research measures or procedures aimed at ensuring the necessary degree of reliability and validity of obtained results.

The versatility of the case study as a research strategy in the field of military sciences also lies in its usefulness, for example, to describe actions or the context in which they were undertaken, to explain causal links that may intervene in an action or to explore new situations where the results of the action – the object of study – are unclear.

In my view, the case study has been, is and will remain an invaluable source of lessons identified (and subsequently learned), due to the fact that it involves a detailed description and analysis of aspects concerning the entities or phenomena of interest. The conduct of case studies in the military sciences develops knowledge by providing answers to questions such as *How...?* or *Why...?* through an empirical, experience-based investigation of the “interesting” incident or event and the way it unfolded in a particular context – real or fictional. The relevance of using case studies in the field of military sciences can be concentrated, in my view, in the statement that *Military Thinking* exists and is constantly developing due to the application of specific principles of conducting case studies.

## References

- Beach, Derek, and Rasmus Brun Petersen.** 2013. *Process-Tracing Methods Foundations and Guidelines*. Ann Arbor: The University of Michigan Press.
- Chelcea, Septimiu.** 2022. *Metodologia cercetării sociologice. Metode cantitative și calitative*. București: Editura Pro Universitaria.
- Collis, Jill, and Roger Hussey.** 2021. *BUSINESS RESEARCH a practical guide for students*. London: Red Globe Press.
- Haydam, Norbert E, and Pieter Steenkamp.** 2020. “A Methodological Blueprint for Social Sciences Research - The Social Sciences Research Methodology Framework.” *European Integration - Realities and Perspectives*. Galati: Danubius University. 304-325.
- Hinkelmann, Knut, and Hans Friedrich Witschel.** 2013. “How to choose a research methodology?” <http://knut.hinkelmann.ch>. Aprilie 17. Accessed August 5, 2024. [http://knut.hinkelmann.ch/lectures/project2013/p1\\_5\\_how-to-choose-a-research-methodology.pdf](http://knut.hinkelmann.ch/lectures/project2013/p1_5_how-to-choose-a-research-methodology.pdf).
- Kuhn, Thomas S.** 2008. *Structura revoluțiilor științifice*. București: Humanitas.
- Leavy, Patricia.** 2014. *The Oxford Handbook of Qualitative Research*. New York: Oxford University Press.
- Okoko, Janet Mola, Scott Tunison, and Keith D. Walker.** 2023. *Varieties of Qualitative Research Methods*. Saskatoon, Saskatoon: Springer Texts in Education.
- Pathiranage, Yasas L., Lakmini V. K. Jayatilake, and Ruwan Abeysekera.** 2020. “Case Study Research Design for Exploration of Organizational Culture Towards Corporate Performance.” *Review of International Comparative Management*, Mai: 361-372.
- Phair, David, and Kerry Warren.** 2021. *Gradcoach*. Ianuarie. Accessed August 8, 2024. <https://gradcoach.com/saunders-research-onion/>.
- Saunders, Mark N. K., Philip Lewis, and Adrian Thornhill.** 2019. *Research Methods for Business Students*. New York: Pearson CSC.
- Studypool.** 2021. *Saunders research onion model*. <https://www.studypool.com/documents/4112364/saunders-research-onion-model>.
- Venneson, Pascal, and Ina Wiesner.** 2014. “Process tracing in case studies.” In *Routledge Handbook of Research Methods in Military Studies*, by Joseph Soeters, Patricia M Shields and Sebastian Rietjens, 92-103. New York: Routledge.