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The role of rationality and intuition in creating strategic military documents

Eva Štěpánková

University of Defence, Brno, Czech Republic
https://orcid.org/0000-0002-0371-6659

Kristýna Binková

University of Defence, Brno, Czech Republic
https://orcid.org/0000-0002-6256-1108

Abstract

Background: Managers can plan strategically based on a rational and/or intuitive approach. In the past, intuition and rationality were seen as opposing approaches, one or the other of which was used. Currently available sources confirm the combination of both approaches as effective, and thus their complementarity.

Purpose: The main goal of the paper is to reveal the characteristics of using intuition and rationality in the process of creating the strategic documents of the Ministry of Defence of the Czech Republic (MoD CR). Further, there are two sub-goals: to analyse the proportions, characteristics and consequences of using the revealed ratio of intuition and rationality in the process mentioned.

Study design/methodology/approach: The general research design is a qualitative paradigm. The data were collected through a semi-structured questionnaire. The sample amounted to 18 authors of strategic documents of the MoD CR. The data were evaluated using the grounded theory method, which defines the procedures of open and axial coding of the text. The arrangement of relationships between the identified data categories was carried out using a paradigmatic model according to grounded theory.

Findings/conclusions: The conclusions confirm the use of a combination of intuition and rationality in the process of creating strategic documents. However, intuition prevails in the ratio of both approaches, which can be the cause of not quite optimal output. Processed strategic documents suffer from some shortcomings (i.e. inconsistency of formal and content aspects, insufficient measurability, objectivity and comparability), which are related to insufficient or incorrect use of exact methods and a systematic approach.

Limitations/future research: The conclusions are valid for the MoD CR, specifically for the process of creating strategic documents. It would be useful to compare them with other types of organizations in the state, public and private sectors. The use of intuition and rationality in other processes of strategic management can be examined and compared with the processes of middle and lower management.

Keywords

Strategic documents, intuition, rationality, military, the Ministry of Defence of the Czech Republic, grounded theory

Introduction

In the initial stages of studying managerial decisions, the primary focus was on perceiving strategic decision-making as a rational, analytical, linear, and systematic process (Cabantous & Gond, 2011). However, there is now growing recognition that conscious and deliberative processes may not always be the dominant factors driving strategic managerial decisions (Salas et al., 2010). Effective strategic decision-making could necessitate the incorporation of both rationality and intuition, and there are cases when rational thinking is insufficient for decision-making (Khatri & Ng, 2000; Katsikopoulos et al., 2022). Instead of a comprehensive analysis, more and more managers are openly acknowledging that they rely on intuition in their decision-making processes and embrace it as an effective approach to important decisions; therefore, intuition does indeed hold a crucial significance in management (Khatri & Ng, 2000; Miller & Ireland, 2005; Elbanna, 2006;

Elbanna & Child, 2007; Akinci & Sadler-Smith, 2019; Crossan & Bedrow, 2003; Woiceshyn, 2009; Kopalle et al., 2023). Klein (2002) emphasizes that even those who claim that they do not rely on intuition do, and have to, without being consciously aware of it.

For this reason, management theorists have been increasingly focusing on the conceptualization of intuition in recent times (e.g. Khatri & Ng, 2000; Sadler-Smith & Shefy, 2004; Dane & Pratt, 2007; Akinci & Sadler-Smith, 2012) and studying its impact on strategic decision-making (Behling & Eckel, 1991; Burke & Miller, 1999; Sadler-Smith & Shefy, 2004; Miller & Ireland, 2005; Sinclair & Ashkanasy, 2005; Dane & Pratt, 2007; Hodgkinson et al., 2009). According to Parikh et al. (1994), intuition is the most important in creating corporate strategy and planning.

Although there has been a recent increase in attention to intuition within management theory, there exists limited research regarding the role of intuition in the context of creating strategic documents.

The research questions of the investigation carried out and presented here are as follows:

1. What is the ratio of using the intuitive and rational approach of the authors in the process of creating strategic documents of the MoD CR?
2. What is the impact of the ratio of intuition and rationality on the output of the process, or the quality of the resulting document?

The essential structure of the study involves a case study of the organisation. The selected organisation is the Ministry of Defence of the Czech Republic (MoD CR). The major scope of authority of the MoD CR is to secure the defence of the Czech Republic, management of the Army of the Czech Republic (ACR) and administration of Military Regions. The organization ensures the planning and implementation of the armed forces enhancement concept, proposes strategic measures for national defence, and establishes collaboration with NATO's allies and other foreign armed forces' defence departments.

Military strategic management encompasses development, training, and deployment of the armed forces, formulation of defence policies, and effective management of material, financial, and human resources. The strategic documents (SDs) of the MoD CR, which are the focus of this study, are formulated in the aforementioned strategic domains.

The MoD CR employs approximately 35,000 employees, 27,000 of which are part of the Czech Armed Forces. With regard to significant changes in the security situation in 2022, the MoD CR clearly intends to further increase the number of military employees in the department.

Strategic documents in the defence department are a tool for the conceptual development of the capabilities of the Ministry of Defence (MoD) and the Army of the Czech Republic (ACR) in the medium and long term (Procházka, 2018).

1. Literature review

1.1. Definition of intuition

Rationality denotes a decision-making mechanism that is analytical, systematic, rule-based, and explicitly structured (Hodgkinson & Healey, 2011). When relying on rationality, managers search and evaluate relevant objective information from all potential sources, and have a preference for employing quantitative tools when evaluating and selecting from various alternatives (Hart, 1992; Grünig et al., 2005). However, there are objective obstacles accepting rationality (Elbanna, 2006; Dean & Sharfman, 1993; Miller, 2008). The organizations might lack the appropriate resources or competencies to collect data and analyse information. Moreover, because of its methodical and well-organized characteristics, rational decision-making can be slow, requiring considerable time and effort. Therefore, it may not always be suitable for addressing the time constraints, intricacies, and uncertainties involved in innovation decision-making (Dane & Pratt, 2007). In such situations, managers tend to rely on an intuitive decision-making process (Dane & Pratt, 2007; Gore & Sadler-Smith, 2011).

In intuitive decision-making, managers do not perform analyses, but their solutions look very mysterious in the way they emerge from their heads (Papulova & Gazova, 2016). Intuition is usually defined as insight that bypasses reasoning or perception of reality resulting in judgments that emerge from swift, subconscious, and comprehensive associations (Dane & Pratt, 2007; Hodgkinson & Healey, 2011; Samba et al., 2022; Frantz, 2000).

Neither the antithesis of rationality nor a haphazard guessing process (Paprika, 2008), intuition is commonly understood as an inexplicable “hunch” or “gut feeling”, as opposed

to explicit, systematic analysis that tells a person what to do (Vaughan, 1979; Elbanna et al., 2013; Elbanna & Fadol, 2016; Miller & Ireland, 2005; Shirley & Langan-Fox, 1996). Managers are unable to clearly articulate or justify the reasons for a particular decision – in essence, they know, but do not know why (Nutt, 1998; Covin et al., 2001; Sinclair & Ashkanasy, 2005; Paprika, 2008). Thus, there are situations, in which an experienced manager will reject a course of action simply because he "feels it's not right", even in situations when all the data available for conscious consideration points in the other direction (Luoma & Martela, 2021). Buchanan & O'Connell (2006) called it "one of the X-factors separating the men from the boys".

Describing intuition may pose challenges, but recognizing it tends to be more straightforward (Sadler-Smith & Shefy, 2004). Some say it is a built-in capacity born with us (Agor, 1997), while some believe that intuition is "simply analysis frozen into habit and into the capacity for rapid response through recognition" (Simon, 1987), thus accentuating its experience-based nature as it is not straightforward and requires years of experience in problem-solving and intimate knowledge of the situation (Simon, 1987; Isenberg, 1991; Eisenhardt & Zbaracki, 1992; Seebo, 1993; Khatri & Ng, 2000; Miller & Ireland, 2005; Dane & Pratt, 2007; Paprika, 2008; Gore & Sadler-Smith, 2011; Duggan, 2013; Ahangaran et al. 2016; Teece, 2018; Giampaoli et al. 2019; Jutidharabongse et al., 2020). Walsh et al. (2022) identify four different categories of intuition: expert, creative, social and temporal. Sadler-Smith & Héliot (2021) adds a fifth type – spiritual intuition.

1.2. Intuition in context

Empirical studies have investigated how particular sets of circumstances shape intuition (e.g. Agor, 1986; Isenberg, 1991; Parikh et al., 1994; Shapiro & Spence, 1997; Khatri & Ng, 2000; Hayashi, 2001; Dayan & Elbanna, 2011; Elbanna & Fadol, 2016) or how intuition influences decision outcomes and organizational performance (e.g. Wally & Baum, 1994; Khatri & Ng, 2000; Covin et al., 2001; Sadler-Smith, 2004).

Decision-makers are shaped by the requirements of the specific situation or task at hand (Wu, 2022; Svenson et al., 2023). There are certain situations in which intuitive decisions may be as good as or even superior to the rational ones (Dane & Pratt, 2007; Hammond et al., 1987; Khatri & Ng, 2000; Schweitzer et al., 2020). According to Leavitt (1975), intuition is perceived as a valuable tool to counteract excessively analytical practices, a concept he termed "analysis paralysis". Intuition is regarded as a potent approach to decision-making, particularly in strategic scenarios where decision-makers grapple with intricate and ambiguous problems (Shapiro & Spence 1997; Clarke & Mackaness 2001; Dane & Pratt, 2007; Elbanna et al., 2013). Henry Mintzberg elucidates that strategic thinking necessitates creativity and synthesis, and intuition is better suited for this purpose than analysis (Mintzberg & Westley, 2001). Studies also suggest that intuition is useful in time pressure and such environments with a dynamic setting, high level of uncertainty and complexity (Agor, 1986; Orasanu & Connolly, 1993; Kuo, 1998; Claxton, 1998; Burke & Miller, 1999; Khatri & Ng, 2000; Miller & Ireland, 2005; Hodgkinson et al., 2009; Malewska & Sajdak, 2014) insofar as they remain familiar and the decision-maker is equipped with a sufficient experiential basis and set of competences, such as decision-making readiness or generating innovative solutions (Hodgkinson et al., 2009; Kahneman & Klein, 2009; Hodgkinson et al., 2009).

In organizational settings, even classical theorists like Carl Jung, Chester Barnard, and Abraham Maslow have acknowledged the significance of intuition (Dane et al., 2012). Nevertheless, the literature has presented inconsistent results regarding the direct impact of intuition on strategic decision outcomes. Various empirical studies have demonstrated a positive correlation between the utilization of intuitive decision-making approaches and improved planning effectiveness or organizational performance (e.g. Songkajorn et al., 2022; Kim et al., 2021; von Diest et al., 2020; Aujirapongpan et al., 2020; Aujirapongpan & Hareebin, 2020). However, there is also empirical evidence indicating no significant relationship between these two variables (Chaston, 2009; Elbanna et al., 2013; Giampaoli et al., 2019). Both intuition and analysis have their strengths and weaknesses (Hallo & Nguyen, 2021). According to Wally & Baum (1994), Khatri & Ng, (2000), Miller & Ireland (2005), Dane & Pratt (2007), Ritchie et al. (2007), Dayan & Elbanna (2011), Kaufmann et al. (2014), Sadler-Smith (2004) or Szanto (2022), the use of intuition can result in good-quality decisions and is generally associated with good results. It is most often attributed to faster decision-making speed (Khatri & Ng, 2000; Hodgkinson & Sadler-

Smith, 2018). On the other hand, managers might make decisions very fast without considering facts and ignoring important details (Elbanna, 2006; Elbanna et al., 2013). Its weakness is also the fact that it can contain subjective views, incorporate several cognitive biases and lack arguments (Khatri & Ng, 2000; Tabesh & Vera, 2020). Moreover, the strategy of relying on intuition is likely to fail in novel or rapidly changing situations (Dane & Pratt, 2007; Woiceshyn, 2009; Kahneman & Klein, 2009). For these reasons, analytic methods need to be used (Korherr et al., 2022). As a result, numerous authors (e.g., David, 2013; Bullini Orlandi & Pierce, 2020; Baldacchino et al., 2023; Manesh et al., 2022) propose that combining intuition with analysis is essential to establish a solid foundation for strategic decisions.

1.3. Empirical research on intuition

Some researchers explored how managers perceive intuition and how they use it across a variety of organizational contexts. According to some scholars, when making decisions, many executives rely on intuition more than formal analysis (e.g., Burke & Miller, 1999). Fields (2000) showcased the regular use of intuition in business practices. Similarly, in Catford's study (1987) involving 57 business professionals, it was evident that intuition was commonly employed as a business tool.

Agor (1986) conducted research on a sample of 200 managers and demonstrated that senior managers exhibited more intuition compared to middle or lower-level managers. Paprika (2008) asserted that entrepreneurs frequently rely on intuition in their decision-making more than executives. In a study of 234 Hungarian companies, Szanto (2022) found evidence suggesting that those better prepared and capable of managing change effectively tended to utilize intuitive decision-making approaches more than those less responsive to change. Sleesman et al. (2022) conducted a study involving 222 Multiteam Systems consisting of United States Air Force Captains, which revealed that leaders with an intuitive leadership style had a positive impact on the performance of multiteam systems operating under high information load conditions. Elbanna et al. (2013) conducted a study confirming a negative relationship between the use of intuition and firm size, indicating that decision-makers in smaller firms rely more on their intuition and personal experience. In a study focused on Slovak companies, Papulova & Gazova (2016) found that intuition was less commonly used and applied as a type of thinking, with a higher preference for it in small and micro companies by 18.72% (compared to large companies at only 2.56%). Moreover, Khatri & Ng (2000) conducted research on a total of 141 physicians, revealing that intuition played an essential role in the strategic process, frequently exhibited by top-level personnel in their strategic decision-making. A total of 18 interviews with Dutch sewer asset managers in a study by Van Riel et al. (2014) demonstrated that intuition was applied to decision-making to ensure the continuity of daily practice. According to a study by Vanlommel et al. (2017), intuitive expertise appeared to be the most important basis for the decision-making of 17 primary school teachers, conducted in Belgium. Also, design professionals often exhibit an inherent and prevalent inclination towards intuitive decision-making when approaching innovation (Michlewski, 2008; Andriopoulos & Lewis, 2009; Stigliani & Ravasi, 2012). Tensions can arise from the contrast between the primarily intuitive approach of design professionals and the rational decision-making commonly embraced by the managers of the companies that employ them (Cabantous & Gond, 2011). Parikh (1991) conducted a significant survey of 13,000 managers worldwide, and their responses attributed 80% of their business success to intuitive decision-making (Buchanan & O'Connell, 2006).

Emmanuel et al. (2010) argue that decision-makers in large UK manufacturing companies, who are experienced executives, incorporate intuition into their strategic investment decision-making practices. In Paprika's study (2008), which examined twenty top-level managers, a combination of analytical and intuitive problem-solving approaches was observed. Some managers in this study preferred to be perceived as rational, while others took pride in relying on their instincts to address specific cases.

Previous studies have attempted to combine intuition and rationality by considering them as distinct decision-making approaches (Dayan & Di Benedetto, 2011; Dayan & Elbanna, 2011; Elbanna & Child, 2007). In academic studies concerning planning and strategic decision-making, there has been a conventional tendency to contrast them, and approach them as alternative, distinct and contradictory decision-making processes (Khandwalla, 1977; Covin et al., 2001; Elbanna, 2010; Calabretta et al., 2017; Kaufmann et al., 2017; Wang et al., 2017; Deligianni et al., 2016; Petrou et al., 2020), assuming that managers are

either rational or intuitive when making strategic decisions (Kolbe et al., 2020; Petrou et al., 2020). However, the dual-process approach has become widely accepted, describing a model of decision-making guided by both rationality and intuition since these quite often complement and interact with each other (Evans, 2008; Hammond, 1996; Kahneman & Frederick, 2005; Kaufmann et al., 2014; Calabretta et al., 2017; Woiceshyn, 2009; Vieira et al., 2020; Troise et al., 2022).

For example, Pondy (1983) noted that rationality and intuition were equal partners, each providing a context in which the other could operate. Similarly, Simon (1987), Agor (1986), Yukl (1994), Kuo (1998), Berry & Broadbent (1987) Lewicki et al. (1988), Barnard (1995), Mintzberg & Westley (2001) or Sadler-Smith (2004) observed that, to be effective, any organization must use both analysis and intuition when creating strategy, switching from one to the other as needed (Thanos, 2022). Relying on intuition or rationality separately will not help managers to implement successful decisions. Hough & Ogilvie (2005), based on a study of 749 managers, as well as Thanos (2022), based on a study of 103 decisions made by service firms in Greece, concluded that managers who simultaneously combine analysis and intuition are more successful than managers who independently use rationality or intuition. Hence, any theory related to strategic decision-making must encompass both rational and intuitive processes (Khatri & Ng, 2000).

According to Agor (1986) and Isenberg (1991), intuition follows the rational process. In this way, the experience and gut instincts of managers act as control mechanisms for the results of rational decision processes, leading to better decision-making. According to Kaufmann et al. (2017), rationality is guided by intuition; thus, using details and data, it checks all important steps before making a decision. According to Dane & Pratt, (2007), intuition both precedes and follows the rational process. In this way, rationality acts as a control mechanism for intuition and vice versa.

2. Methods

The chapter defines the basic characteristics of the research realized, particularly its goal, research sample, applied methods and collection procedures, analyses, and data interpretations.

The goal of the paper is to identify the ratio of rationality and intuition in the process of creating the strategic documents of the MoD CR and to analyse the impact of the revealed ratio on the quality of documents (process outputs). The research questions are defined in the Introduction of the paper.

The chosen research design is qualitative in nature, aiming primarily to uncover new insights and patterns. The researcher identifies topic or questions, collects information from various sources and discovers the answers emerging from information available (Hancock et al., 2021). The qualitative approach is distinguished by its focus on a limited number of cases while gathering a substantial amount of data and associated information. It relies on an inductive approach, often exhibiting relatively low reliability but high validity (Blaikie, 2007; Hendl, 2016).

The purpose of qualitative research is not to test a stated hypothesis, but to explore a new topic and to answer the research questions. Its objective lies in acquiring fresh insights and formulating new theory and understanding. Given the limited number of participants included, the generalization of results to the broader population (statistical generalization) is problematic. Instead, qualitative research relies on analytical generalization, a process involving the extension and generalization of theory. The researcher strives to generalize a particular set of results to a broader theory (Yin, 2019). The new theory is initially valid only for the studied units. It is a new knowledge to be subjected to further investigation or verification of the emerging new theory on a larger sample. This iterative process gradually leads to the confirmation or refutation of the validity of the new theory within the broader context or the entire population.

Various qualitative research methodologies exist - ethnomethodology, ethnography or narrative analysis. For the purpose of the present research, a basic framework suitable for the case study, coupled with selected grounded theory procedures, was employed.

Case studies are characterized by their empirical exploration of a topic, focusing on one specific case that can encompass multiple variables of interest. It looks at the subject in depth and from many angles (Thomas, 2021). The authors used a multiple-case study design, offering greater credibility and persuasiveness of the results compared to a single-case study.

2.1. Data collection

The data collection involved creating a semi-structured questionnaire, followed by conducting

personal interviews with the members of the MoD CR. The questionnaire encompassed a diverse array of questions, but for the purpose of this paper, only the specific questionnaire areas listed below were examined:

1. The ratio and characteristics of using intuition and rationality in the process of creating strategic documents at the MoD CR.
2. The consequences of the revealed ratio of intuition and rationality.

Regarding the mentioned topics, the questionnaire comprises a total of five open-ended questions and two partially closed questions. At first, the questionnaire was presented to two respondents within the so-called pilot studies.

2.2. Sample

For the sampling method, intentional (purposive) sampling was chosen, representing one of the non-probability sampling techniques (Babbie, 2020). In this research, 22 respondents were invited to take part, and 18 of them consented to the personal interviews.

The primary criterion for including a respondent is their involvement in creating strategic documents for the MoD CR. The respondent must have been either a creator or a member of a team actively engaged in creating strategic documents for a certain period within the last ten years.

Among the entire group of 18 respondents, there are 10 civil employees and 8 active military personnel (comprising 2 generals and the remaining being colonels or senior officers). Concerning the duration spent in positions involving creating strategic documents, a total of 13 respondents held such positions for a period ranging from 2 to 10 years, while 4 respondents served in these roles for over 10 years, with the longest tenure being 15 years.

In qualitative research, it is challenging to precisely determine the sample size, that is, the number of respondents (or other data sources) necessary to create a sufficiently comprehensive database and a high-quality theory. The data collection process concludes when theoretical saturation is achieved (Miovský, 2006; Hendl, 2016). This moment occurs when additional cases do not yield new insights but merely confirm the findings from previous cases. Theoretical saturation was attained within the research data when it only repeated (and thus validated) previous discoveries, making any further data collection unnecessary.

2.3. Data processing and analysis

Considering the character of the objective and the specifics of the determined plan, the authors opted to employ the principles of the grounded theory method in handling the data. Grounded theory has two main perspectives, with well-known proponents being Barney Glaser (Glaser & Strauss, 1999) and Anselm Strauss along with Juliet Corbin (Corbin & Strauss, 2015). Although the fundamental perspective is similar, the concept of the coding process differs between the two. In this article, the latter approach (Corbin & Strauss, 2015) is applied.

During the interviews, the data was recorded as written notes and later transformed into a written text. Subsequently, the grounded theory's coding procedures were employed to process and analyse the text. The fundamental principle of the grounded theory involves organising qualitative data through the application of specific text coding approaches:

- Open coding – identification and categorization of concepts, their properties and dimensions of these properties (dimensionalising).
- Axial coding – a process of establishing connections among the primary categories and subcategories using the so-called paradigm model.

The mentioned types of text coding rely on constant comparison, questioning, and identifying similarities and differences. Then the process of dimensionalisation brings an initial idea of the relationships between key concepts – the categories revealed in the qualitative data.

The organization of a considerable amount of qualitative data is primarily achieved through data categorization and subsequent exploration of their interrelationships. The outcome of the grounded theory involves identifying key categories and subcategories of concepts - those that receive significant attention from respondents (high frequency of occurrence) and hold substantial importance. When the text contains sufficient depth, it becomes possible to subdivide the key discovered categories into subcategories.

The key output of the grounded theory is the design of a theory expressed by the paradigmatic model. The model puts the categories and subcategories found into interrelationships by breaking them down into causes, the phenomenon

itself, intervening conditions, strategies of action and consequences of action.

3. Results

The respondents clearly agree that when creating the strategic documents of the MoD CR, intuition and experience is always present. This is how 100% of respondents expressed their opinion.

According to the interviewed respondents, the ratio of intuition and rationality is difficult to estimate; nevertheless, most of them gave some estimate of the ratio.

More than 50 % of respondents agree on the involvement of intuition and experience (most often 50-80 %); the rest is the use of exact methods or rationality. The prevailing importance of intuition can be evidenced by the following statements of the respondents: "Intuition is key"; "Authors are expected to make a qualified estimate"; "In general, there must always be more intuition and experience than exact methods when creating strategic documents".

The findings can be evaluated in more detail as follows. Four respondents declare the involvement of intuition at about 50 %. Eleven interviewees agree on more than 50% involvement of intuition in the process of creating strategic documents compared to rational procedures. Five of these nine respondents estimate the use of intuition at even more than 70 %.

Three respondents out of eighteen report less than 50% involvement of intuition. One of them states about 30-40 % and adds that "expert estimates and a group view are used most, then intuition and exact methods take up the rest". Another respondent mentions minimal involvement of intuition – less than 10 %. This may be due to the fact that the respondent participated in creating strategic documents of the Military Police, i.e. a specific area - as he states, this area is "very bound by legislation, there is no room for greater involvement of intuition, it is necessary to work logically and precisely".

3.1. Factors affecting the ratio of intuition and rationality

Through coding the text (statements of the respondents) according to the grounded theory, the factors influencing the involvement of intuition and exact methods in the process of creating strategic documents were further revealed. The determined ratio depends on the factors listed in Table 1.

Table 1 Factors influencing using intuition/rationality

Experience of the author/s The more experience the author has, the higher the rate of using intuition ("*One intuitively knows how and what to use and what the output should be*"). The level of experience depends on the level of knowledge of the environment (MoD) and experience at all levels of management/command. Another statement can be added to this – "*if intuition is supported by knowledge, experience, then it has its place here [note: in the process of creating strategic documents"].*
Document type Each document has its own goal, required structure, form, and content. The intensity of the authors´ use of rational and intuitive decision-making depends on the specifics of each of them.
A specific part of the document The level of intuition and rationality involved in various parts of a document can differ. The more precise a section needs to be, the more accurate methods should be used. On the other hand, general parts require a higher level of intuitive thinking. For further information, please refer to the section on creating strategic documents below (subchapter 3.3.).
The time horizon, for which the document is created The longer the scope of the document, the more intuition and fewer exact methods are used. This is evidenced, for example, by the following statements: "*Intuition is essential and beneficial for creating the documents with a view of more than 10 years*" or "*For an annual document, the the ratio is 90 % of the exact method and only 10 % of intuition. For a document created for 10 years, the ratio is about 50/50*".
The role of the author in the process of creating strategic documents Different roles of the author (administrator, owner, layman, etc.) influence the representation of intuition and rationality.
The existence of a methodology for creating **strategic documents** With the existence of a methodology or a regulation for processing the task, the share of intuition decreases.

Source: the authors

3.2. Reasons for the predominant representation of intuition

Some of the interviewees mention the reasons for using intuition to a greater extent compared to the use of strategic and decision-making analysis methods:

- Time pressure. The reason for using intuition is primarily the fact that the authors of strategic documents have little free time. As a result of being overwhelmed with other tasks, there is no time left for analytical work; therefore, less time-consuming intuition and past experience are involved.
- The specifics of the field (the MoD) lead to a greater intuitive decision-making. One respondent states the following: "The

management process at the Ministry of Defence is essentially quite intuitive, based more on experience than being strictly exact." Another respondent adds that "Social sciences in general and military management as well – are always more about opinions – something simply cannot be quantified".

- Positive previous experience of the respondent(s) with an intuitive approach.

3.3. Intuition and rationality in the individual stages of creating strategic documents

Further, it has been investigated, in which stages of creating a strategic document intuition and rational approaches are used. It has already been mentioned that intuition has a higher representation in the more general parts of the documents (introduction to the issues, vision setting, etc.). Transparent analytical procedures are used to a greater extent when solving more specific problems.

Four of the eighteen interviewees stated that, in their case, intuition was used continuously during the entire process of creating strategic documents.

Half of the interviewees state that intuition and experience are used especially at the beginning of the process of creating strategic documents, while in the advancing stages, the processing team leans towards methodologically more precise procedures. One of the interviewees, for example, states that "In the first stage of creating a document (what will be done and how) an intuitive approach is used in up to 80 %. Towards the end of the document, it is about 50-60 %. There is a need to use more of a rational approach".

This is confirmed by another, more specific statement – intuition is applied especially in the stages of creating the outline (structure) of the document ("...in the preparation stage, formulating the starting points and basic parameters of the document...") and in the stage of data collection and their analysis. Exact methods are used to a greater extent in the stages of creating variants and determining criteria weights. However, one of the interviewees states that, according to his/her experience, intuition prevails even in the stage of choosing an optimal variant.

One respondent adds to the mentioned area – "What can be measured should be measured and abstract issues should be worked out using experience and intuition."

3.4. Advantages and disadvantages of intuition and rationality

Respondents see the advantages of intuition mainly in saving time. This factor has the highest weight or is most often explicitly declared – it is mentioned in some form by two-thirds of the respondents. Next, the advantages of intuition are listed as well as the disadvantages of rationality - lower costs, lower demands on the authors' competence, and the knowledge of the software.

On the contrary, the negative aspects of intuition are as follows:

- A condition (risk) when incompetent, inexperienced workers make intuitive decisions ("Using intuition fundamentally depends on the abilities of the person who uses it – it cannot be used always and everywhere", "Incompetent people make mistakes when making intuitive decision-making").
- Problems with verifiability of the accuracy of outputs and over-reliance on the status quo ("Less consideration of unknown or less likely and undeveloped ways of solving/reasoning").

The advantages of exact methods are obvious at the theoretical level. Nevertheless, we shall take a look at the practical experience of the authors of strategic documents at the Ministry of Defence and their perception of the benefits and pitfalls of exact procedures in creating strategic documents for the organization. The interviewees declare the following benefits of rational approaches:

- Higher quality of outputs ("A strategic document should not be formed only by intuition, but should be supported by 'hard' facts").
- Support of the argumentation. The higher the degree of use of exact methods and techniques, the more credible the submitted materials are for the contracting authority.
- Higher credibility of the output (in the eyes of the superior authority or approver/s) provides sufficiently convincing results of the analysis.
- The possibility of verifying the results and their modelling.
- Ensuring the consistency of individual documents (Štěpánková, Richter, 2022).
- Higher certainty for authors – "Not everyone is willing to take responsibility for an intuitive decision and rely on it.

Someone prefers to bet on safety by applying some method".

Analogous to the advantages of intuition, the respondents agree that a rational approach, or the application of strategic and decision analysis methods has the following disadvantages:

- Higher costs due to the following disadvantages of exact methods.
- Higher time demands compared to the intuitive approach.
- Higher demands on the authors´ competence and their analytical skills. This results in the risk of incorrect or ineffective application of strategic analysis and decision-making methods or application to a completely inappropriate type of problem. Another mistake is if the methods are used only formally, mechanically, or, on the contrary, their importance is overestimated.
- Higher demands on software and the associated necessary competence of authors to work with relevant software.

3.5. Impacts of lower representation of the rational approach

A significant conclusion of the open coding of data is the low rate of use of strategic and decision-making analysis methods. Exact methods are used here mostly informally or in a modified form (adapted to the needs of the MoD).

The method that is explicitly and informally used most often is a SWOT analysis. Other methods are stakeholder analysis, scenario method, GAP analysis, brainstorming, and data collection methods (mostly informal applications) (Štěpánková & Binková, 2023).

Respondents mainly point to the following shortcomings in the use of methods and data processing:

- Random, unsystematic selection and use of information, data sources, and rational methods.
- The application of strategic analysis methods is highly intuitive and informal.
- Unsystematic selection of appropriate methods, e.g. according to the erudition and experience of authors or contracting authorities (Štěpánková, Richter, 2022).

The authors are largely aware of the utility of exact methods, but they admit their frequent neglect. The reasons for the aforementioned statement, or, more precisely, the barriers to the use of exact methods, are categorized in Table 2.

Table 2 Factors influencing using intuition/rationality

1. Specifics of the organization and strategic document
▪ Inappropriateness of the method for a given document.
▪ The objectives of the document are given by the superior or departmental specifics.
▪ The application of the methods is not required by superior authority.
▪ High specificity of some documents.
2. Specifics of a particular method
▪ The level of complexity of the method
▪ The level of time requirement of the method.
▪ Uncertain data acquisition for the application.
3. Factors related to the personality of the author(s)
▪ Preference for an intuitive approach
▪ Diverse level of competence
▪ Misconception about the purpose of the method
▪ Being overwhelmed by other tasks (Štěpánková & Binková, 2023).

Source: the authors

In addition to the explicit and formally correct use of the methods, the rationality of the authors can also be seen in the modifications of the methods, or adapting them to the needs of the MoD. Even the rejection of some methods due to their irrelevance or the specificity of the MoD can be based on rational reasoning. Nevertheless, the prevailing ratio of intuition appears to be not quite optimal. According to the respondents addressed, the consequences of the absence of a holistic approach are mainly the following:

- Inconsistency and a lack of interconnection of both formal and content aspects of the documents. Inconsistency appears between individual strategic documents of the MoD, between individual versions of the same document, or even between individual parts of the same document.
- Insufficient measurability, objectivity, and comparability of the documents.

The rational approach is, therefore, clearly used to a lesser extent than the intuitive one. Respondents are quite clearly aware of the importance of rationality and perceive the negative consequences of neglecting it. They, therefore, express a relatively high motivation to balance intuition and rationality so that the output (processed documents) is of higher quality and the process of their processing more efficient. The most frequently declared idea is again that a combination of both approaches is necessary and effective *("Objective methods are clearly useful, but the process cannot be done without intuition").*

3.6. Key categories and paradigmatic model

The above-mentioned findings resulted from the open coding of the text according to the grounded theory. This is based on the search for concepts that are key to the investigated phenomenon from the viewpoint of the research question and the subsequent combining of similar concepts into categories and subcategories.

The key categories emerging from respondents' qualitative answers in the questionnaires on the use of intuition/rationality are listed in Table 3.

Table 3 Key categories of using intuition/rationality

1.	A combination of the intuitive and rational approach.
2.	Prevailing application of an intuitive approach over a rational one. Respondents always combine both approaches, but the vast majority of them declare a higher share of intuition compared to rationality.
3.	Factors affecting the ratio of intuition/rationality (the subcategories are: time allowance for processing documents, the experience/knowledge of the authors, specifics of the document, a specific part/stage of the document, time horizon of the document, and the role of the author).
4.	A low rate of using exact methods, or their unsystematic, informal or intuitive applications.
5.	Lower demands of intuition on resources (time, costs, SW, the competence of authors).
6.	he advantages of the rational approach – higher quality of outputs (consistency, systematicity), verifiability of results and higher certainty of authors, but also higher costs.

Source: the authors

Considering the research questions, the central category is "Combining intuition and rationality". This category is subsequently developed through the process of dimensionalisation, i.e. the identification of category properties and their placement on the scale. It is shown in Table 4.

Table 4 Ratio of intuition/rationality based on properties

Property	Range	Corresponding ratio of intuition/ rationality
Time allowance	low high	⇨ intuition ⇨ rationality
Experience/knowledge of the field and situation	low high	⇨ intuition ⇨ rationality
Experience/knowledge of exact methods	low high	⇨ intuition ⇨ rationality
Document stage	general specific	⇨ intuition ⇨ rationality
Time horizon of the document	short long	⇨ intuition ⇨ rationality
Existence of methodology	exists doesn´t exist	⇨ intuition ⇨ rationality

Source: the authors

According to the grounded theory, the next step is the so-called axial coding, i.e. searching for the relationships (connections) between the categories found. The goal is to organize the categories and subcategories found into meaningful relationships. In the grounded theory, the so-called Paradigm model (Strauss & Corbin, 1999) is proposed for this purpose, the structure is shown in Figure 1.

Causal conditions → Phenomenon → Context → Intervening conditions → Action and interaction strategies → Consequences

Figure 1 Structure of a paradigmatic model
Source: the authors

The researcher can use all of the classes listed to organize the categories found; however, they may omit some if nothing appeared in the data that could be assigned to a class.

The phase of axial coding is always accompanied by a certain degree of subjectivity. According to Strauss & Corbin (1999), it is quite legitimate that each researcher can generate different structures of interrelationships within the categories of phenomena under investigation.

The key categories and subcategories resulting from the qualitative data of the questionnaire were defined above. Figure 2 shows their structuring into a paradigmatic model and thus the arrangement of relationships between them.

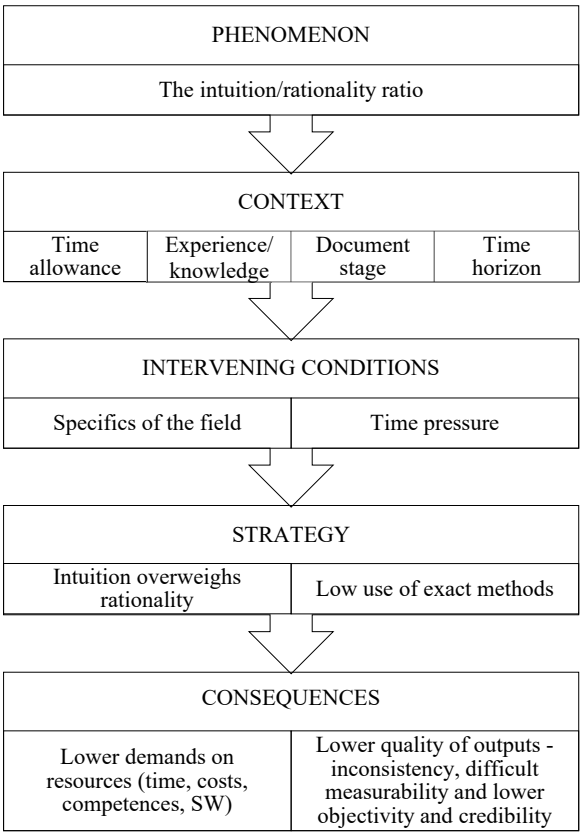

Figure 2 Paradigmatic model – using intuition and rationality
Source: the authors

The paradigmatic model in Figure 2 is a summary of knowledge about the examined phenomenon. Together with the dimensionalisation of the categories (Table 3), it describes the categories and subcategories revealed and the relationships between them.

Conclusion

It follows from the answers of the above-mentioned authors that they perceive it as effective to use a combination of intuitive and rational approach in the process of creating strategic documents. This is in line with many studies that suggest that combining analysis and intuition when creating a strategy leads to effective results (e.g. Barnard, 1995; Mintzberg & Westley, 2001; Sadler-Smith, 2004; Thanos, 2022). However, it is evident that more emphasis is placed on the intuitive approach - the estimates range between 50-80 %, similar to the studies by Burke & Miller (1999), Buchanan & O'Conell (2006), Vanlommel et al. (2017) or Stigliani & Ravasi (2012).

The reason for the prevailing intuitive approach, based on the experience of respondents, is mainly time pressure, the specifics of the field, incompetence of the authors in the area of exact methods, and previous positive experience with the intuitive approach. The reasons mentioned agree with the studies that include their time demands and, therefore, unsuitability in case of time pressure and the frequent incompetence of managers in the area of using exact methods among the most serious obstacles to the application of the rational approach (e.g. Dane & Pratt, 2007; Elbanna, 2006; Dean & Sharfman, 1993; Miller, 2008). The results also agree with the studies that highlight the speed of the decision-making process as one of the advantages of using the intuitive approach (e.g. Hodgkinson & Sadler-Smith, 2018; Khatri & Ng, 2000; Hodgkinson et al., 2009; Miller & Ireland, 2005; Malewska & Sajdak, 2014) and with the studies that perceive the aspect of experience in the field of intuitive decision-making as a key prerequisite for a successful outcome (e. g. Jutidharabongse et al., 2020; Giampaoli et al., 2019; Teece, 2018; Jutidharabongse et al., 2020; Dane & Pratt, 2007; Duggan, 2013; Ahangaran et al., 2016; Paprika, 2008; Gore & Sadler-Smith, 2011).

The factors affecting the ratio of intuition and rationality in the examined sample are the degree of experience of the author(s), the type of a document, a specific part of the document (output), the length of the time period, for which the document is processed, the role of the author and the non-/existence of a methodology for creating strategic documents.

Another important conclusion of open data coding is a low rate of application of strategic and decision-making analysis methods, if need be, the rational approach in the process of creating strategic documents of the MoD CR. Exact methods are used at the MoD CR to a low extent and mostly informally or in a modified form. The consequence is the inconsistency of individual parts of documents as well as individual documents with each other (hierarchical documents or different versions of one document). The results found confirm the results of studies pointing to insufficient or incorrect practical use of strategic analysis methods in the Czech Republic – for example, Straková (2017), revealing that only 40 % of the total number of 456 examined small and medium-sized enterprises in the Czech Republic demonstrate elementary knowledge of strategic analysis methods. Straková & Talíř (2020) reveal in another study that 60 % of the total number of 381 examined enterprises lack awareness of

procedures for development of essential strategic documents such as vision, mission and corporate strategy. The situation is the same abroad (e.g. Novikov, 2018).

The respondents believe that the benefit of the exact method application would be not only a higher consistency of outputs, but also their higher quality, measurability and credibility. Argumentative support, the possibility of verification and comparability of results are also identified as a potential advantage. Many studies in the field of strategic management and managerial decision-making confirm that strategic analysis has a significantly positive impact on the effectiveness of strategic decision-making. This is evidenced both by the studies dealing with strategic management decisions across sectors (e.g. Garbuio et al., 2015) and multinational companies. (e.g. Nwachukwu & Chládková, 2019). For example, Vasilescu (2011) in his paper supports the use of strategic analysis methods at the Ministry of Defence – he states that in today´s changing military environment, intuition is becoming less and less a reliable approach to strategic decision-making.

The listed categories and subcategories were subsequently structured using a paradigmatic model. Interrelationships between categories and subcategories are thus defined.

The central phenomenon is the ratio of intuition and rationality. The context of the phenomenon is determined by influences – time allowance, experience of the authors, document stage, document specifics, and the existence of methodology. The intervening conditions are mainly the specifics of the field and time pressure. The action strategies of the authors (respondents) are the application of a predominantly intuitive approach and the associated lower rate of use of exact methods and their informal or modified application. The consequences of the strategies mentioned are twofold: on the one hand, saving resources (time, costs, demands on competence and software). On the other hand, respondents declare a lower quality of outputs, based on a prevailing intuitive approach (inconsistency, lack of systematism, and lower objectivity).

A combination of intuitive and rational approach appears to be effective. However, the optimal balance or a greater emphasis on rational procedures, according to the data obtained, would generate more efficient work and a higher quality of outputs in the form of high-quality strategic documents of the MoD.

The conclusions of a qualitative investigation are always valid for a given sample and are by their very nature destined for further verification, mainly through quantitative approaches, but also qualitative investigations. The presented conclusions are valid for the MoD CR, specifically for the process of creating conceptual documents of this organization.

It is appropriate to further examine the development of the rate and method of using rational and intuitive approaches at the MoD CR. Specifically, the use of intuition and rationality in other processes of strategic management can be investigated. Further, it would be beneficial to compare the conclusions presented here with the processes of middle and lower management. In a broader context, it would be useful to compare the outputs with other types of organizations in the state, public and private sectors.

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✉ **Correspondence**

Kristýna Binková

University of Defence
Kounicova 65, 662 10, Brno, Czech Republic

E-mail: kristyna.binkova@unob.cz