



DETERMINANTS FOR USING INTUITION IN TOP MANAGEMENT DECISIONS

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Introduction

Currently, we can observe an increasing interest in intuition reported by both management theorists and practitioners (Sadler-Smith, 2016). This is a cognitively interesting area, but above all it has an applicability dimension. Highly dynamic and unstable environments limit the possibility of using an analytical approach based on comprehensive processing of obtained data. In addition, conditions such as time pressure, an excess of information or sometimes the incompleteness of data (lack of credibility) facilitate the use of intuition in decision-making practice (Orlandi, Pierce, 2020). It is ever frequently assumed that in certain specific decision-making situations, intuition may turn out to be more effective than the classic rational approach (Julmi, 2019).

The research question therefore arises, what factors lead decision-makers to use intuition? Most researchers dealing with these issues focus their attention on internal factors, there is no comprehensive proposal in this area that would include both internal and external determinants of the use of intuition in the decision-making process (Doherty, Kurz, 1996; Dane, Pratt, 2007; Salas et al., 2010; Blume, Covin, 2011; Gudonavicius, Fayomi, 2014). In the literature on the subject this issue is still relatively rarely discussed. There is a research gap in this area.

The objective of the article is to identify which determinants have an influence on the use of intuition in the

process of top management decision-making. With regard to this objective two research hypotheses have been formulated:

(H1): There is a positive relationship between having a high level of intuitive potential and the degree of using intuition in decision-making processes.

(H2): The most important determinants of using intuition in decision-making processes are external.

In order to achieve the objective formulated in this way, empirical research was carried out on a group of 300 top managers. The influence of individual determinants on the degree to which they used intuition in decision-making processes was determined using a simple regression model.

The article consists of four main parts. In the first stage, an attempt was made to define the ambiguous concept of intuition and its characteristics. Then, the literature in the area of intuition in management was reviewed in order to identify potential determinants of using intuition in decision-making processes. This made it possible to formulate an original typology of factors influencing the use of intuition in practice. The results of the research that concern the identification of significant determinants of using intuition in the decision-making process are presented in the section that follows. The article ends with conclusions and recommendations regarding future research directions.

The essence of intuition - literature review

In recent years, the issue of intuition has been explored by both practitioners and management theorists, becoming the subject of empirical research (Dane, Pratt, 2007; Hodgkinson, Sadler-Smith, 2018; Salas et al., 2010; Hayashi, 2001; Waters, 2017). This is mainly due to the specificity of the environment in which modern organisations function, which is characterised by changeability and unpredictability. This translates into reduced usefulness of rational decision models. Modern decision-making processes are conducted under conditions related to time pressure, information noise and the need to generate unique solutions due to global competition, giving rise to an increase in the frequency of using intuition.

The concept of intuition is definitely interdisciplinary (it is researched in the areas of psychology, sociology, and management), therefore there is no single, universally accepted definition of intuition. The authors note various aspects of this concept:

- the area in which decision-making process takes place – within consciousness (Westcott, 1968; Simon, 1987; Agor, 1998) or the subconscious (Rowan, 1987; Goldberg, 2000; Khatri, Ng, 2000; Hogarth, 2001; Sinclair, Ashkanasy, 2002; Sadler-Smith, Sparrow, 2008; Betsch, 2008),
- the results of using intuition – acquiring knowledge (Rowan, 1987; Goldberg, 2000; Sinclair, Ashkanasy, 2002),
- factors that influence the use of intuition – the knowledge and experience of the decision maker (Simon, 1987; Khatri, Ng, 2000; Sinclair, Ashkanasy, 2002; Klein, 2003; Sadler-Smith, Sparrow, 2008; Betsch, 2008).

When analysing the definitions of intuition proposed in the literature, it is noticeable that it is perceived as a mental process based on both facts and feelings; the effect of which is to obtain a solution to a decision problem. Intuition relates to the knowledge and previous experiences of the decision maker. Intuitive decision-making requires less information, effort, and time than the analytical process, which results in a shorter decision-making process. On the other hand, the differences in the interpretation of this concept relate primarily to the localisation of the intuitive process. As previously mentioned, some authors maintain that intuition is a mental process within consciousness (Westcott, 1968; Simon, 1987; Agor, 1998), while others consider it a subconscious process (Dane, Pratt, 2007, p. 40; Healey et al., 2015; Huang, Pearce, 2015).

Summing up the considerations regarding the concept of intuition, it can be concluded that (Malewska, 2018, p. 78):

- intuition is an automatic mental process (it is an unexpected process, and the knowledge obtained in this way is the result of a sudden “glare”),
- this process results from the knowledge and experience possessed (it is the ability to translate knowledge and experience into current action);

- it takes place, at least partially, without the participation of consciousness,
- it can result in feelings, physiological responses, or interpretations.

Intuition researchers often pay attention to the fact that it is used in certain conditions and in relation to specific types of decisions (Samba et al., 2019). Decision makers use intuition to make individual and unstructured decisions (Akinci, Sadler-Smith, 2019; Crossan, Bedrow, 2003; Eisenhardt, 1999; Simon, 1987). Attention is also paid to the benefits of using intuition; including shortening the decision-making process (Wally, Baum, 1994), increasing operational efficiency through greater decision effectiveness (Khatri, Ng, 2000; Ritchie et al., 2007) or the ability to function in high-risk conditions (Huang, Pearce, 2015).

It has been assumed in this article that there are three different categories: intuitive potential, intuition, and the degree of using intuition in decision making practice. Intuitive potential is a set of personality traits, abilities and predispositions that predispose the decision-maker to use intuition in decision-making processes. This potential can be improved, tested, and used to support decision-making processes. On this basis, it is possible to formulate a hypothesis according to which:

(H1): There is a positive relationship between having a high level of intuitive potential and the degree of using intuition in decision-making processes.

On the other hand, intuition can be defined as a not always conscious mental process, the result of which is understanding, cognition and gaining knowledge without the participation of rational inference based on previous experiences or the learning process. This means that a situation can occur in which the decision-maker has a high level of intuitive potential, but does not use it in making decisions, which translates into a low level of using intuition in practice. A reverse situation is also possible. Ultimately, the degree of practical use of intuition depends on many determinants, both internal and external. The characteristics of these factors are proposed in the next part of the article.

Determinants for using intuition in the decision-making process

The decision-making process is complex and multi-threaded, and its effectiveness depends on many factors: such as knowledge, the experience and personality traits of the decision-maker, the methods of decision making, the quality of the available information, the structure of the decision problem, the nature of the decision situation, and the use of methods and techniques supporting decision making (Malewska, 2018). The analysis of these factors shows that they are general in nature and relate to different approaches to decision-making, regardless of the degree of using intuition or rational analysis. Therefore, the question arises whether there are specific factors that determine the use of intuition in decision making. What determinants

make the decision-maker more intuitive than rational? In the literature, there are only few extensive discussions on this subject; in this area there is definitely a cognitive gap. Most authors indicate the nature of the environment as the basic determinant of using intuition in the decision-making process. An environment conducive to the use of intuition is defined by them as complex, dynamic, changeable, ambiguous, uncertain, turbulent, hostile, unstable, characterised by the high dynamics of technological change, and the possibility of crisis situations (Agor, 1984; McCarthy et al., 1987; Harper, 1988; Eisenhardt, 1990; Cannella, Monroe, 1997; Khatri, Ng, 2000; Covin et al., 2001; Hayashi, 2001; Elbanna et al., 2013; Huang, Pearce, 2015; Elbanna, Fadol, 2016; Okoli, Watt, 2018). Only few authors consider the issues of factors influencing the use of intuition by analysing not only the specificity of the environment, but also internal factors (related to the decision-makers themselves). On this basis, it is possible to formulate another research hypothesis according to which:

(H2): The most important determinants of using intuition in decision-making processes are external.

Table 1 contains a list of the proposed in this area determinants for using intuition in decision-making processes.

Based on Table 1, it can be concluded that the authors identify similar factors influencing the use of intuition in the practice of decision making. They can be divided into three categories:

- related to the decision-maker – his knowledge, experience, and predispositions,
- related to the decision problem – its complexity, repeatability, and degree of structure,
- related to the environment – the conditions and situations in which decisions are made.

Taking into account the authors' considerations regarding the determinants for using intuition in decision-making processes, presented in Table 1, a typology of these determinants can be proposed (Malewska, 2018). On the other hand, the question of their real impact on the level of using intuition in decision-making practice remains open. It seems justified to verify this impact by looking for statistically significant relationships between the above-mentioned variables and the degree of using intuition in decision-making processes.

Methodology of the research procedure

The objective of the research is to identify which determinants have an influence on the use of intuition

Table 1. List of determinants for using intuition in decision-making processes proposed in the literature (in chronological order)

Author	Determinants for using intuition in decision-making processes
E. Dane, M.G. Pratt (2007, p. 41)	<ul style="list-style-type: none"> • knowledge patterns (heuristic and expert, determining the use of intuition in the decision-making process to a greater or lesser extent), • features of the decision problem resulting from uncertainties in the environment (complex, individual, unstructured problems),
D. Kahneman, G. Klein (2009, pp. 515–525)	<ul style="list-style-type: none"> • expert knowledge (resulting from innate and acquired skills), • the nature of the environment (an environment in which there are constant interactions between the objective signals constituting the basis for decisions and the events and processes occurring in the environment), • the ability of the decision-maker to identify regularities in the functioning of the environment,
E. Salas, M.A. Rosen, D. DiazGrandos (2010, pp. 941–973)	<ul style="list-style-type: none"> • related to the decision-maker (expert knowledge, information processing method), • related to the decision problem (problem structure, the possibility of obtaining feedback), • related to the environment (time pressure),
E. Salas, M.A. Rosen, D. DiazGrandos (2010, pp. 941–973)	<ul style="list-style-type: none"> • broad and well-developed knowledge base, • the ability to recognise patterns, • understanding the essence of individual events (arranging them and understanding what happened, what is happening now and what will happen in the future), • the ability to assess a situation and recognize the decision problem, • automatism, • mental excitement,
B.D. Blume, J.G. Covin (2011, pp. 137–151)	<ul style="list-style-type: none"> • experience, • expertise, • metacognitive skills, • emotional intelligence. <p>The above factors influence the use of intuition in making decisions, provided that the decision maker positively perceives intuition as a potential source of decision making. Acceptance of intuition, according to the authors, depends on the effectiveness of previous decisions, the ability to achieve goals, tolerance of ambiguity, self-confidence, and the use of an intuitive style of cognition.</p>
L. Gudonavicius, J.O. Fayomi (2014, pp. 24–29)	<p>The authors paid particular attention to one determinant of using intuition, which is the personality type of decision maker. Based on the personality types distinguished by J.L. Holland, L. Gudonavicius and J.O. Fayomi indicated two types of personality that predispose to using intuition in decision-making processes – the entrepreneurial type and artistic one.</p>

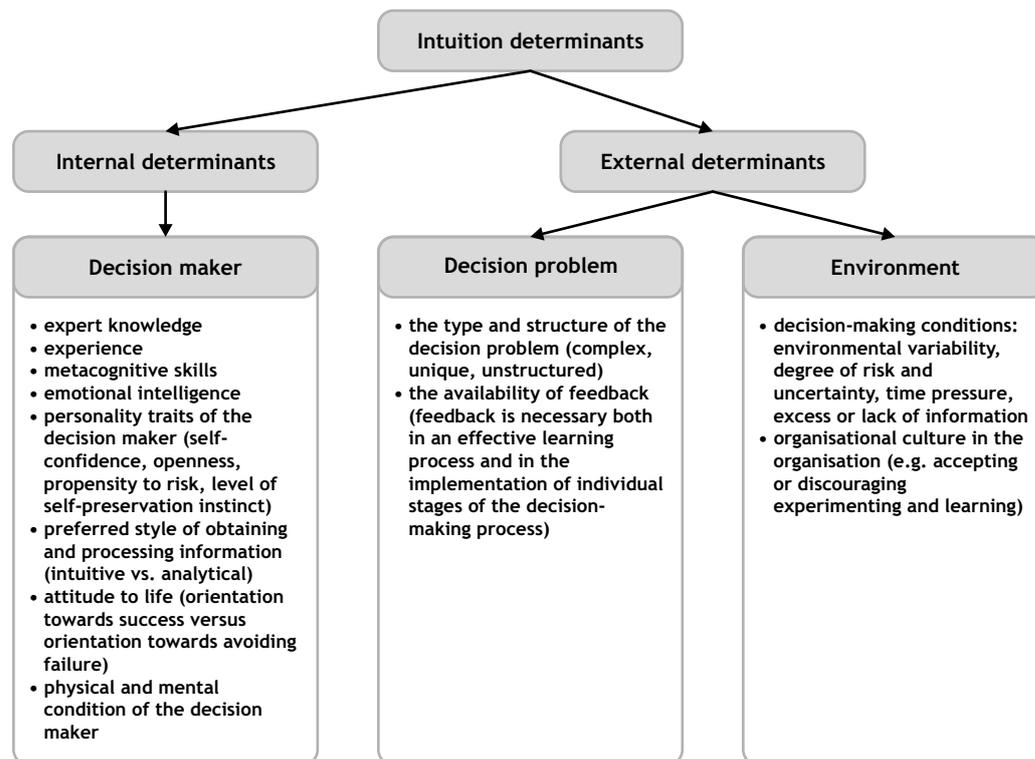


Figure 1. Determinants for using intuition in decision-making processes
Source: Malewska, 2018, p. 148

in the process of top management decision-making. With regard to this objective and on the basis of a critical analysis of the literature two research hypotheses have been formulated:

(H1): There is a positive relationship between having a high level of intuitive potential and the degree of using intuition in decision-making processes.

(H2): The most important determinants of using intuition in decision-making processes are external.

The list of determinants that were assessed by top managers was formulated based on the compilation and systematisation of the authors' proposals in this area (the formulated typology of the determinants is presented in the literature part of the article).

In order to implement the planned research procedure an original questionnaire was developed, consisting of four basic parts:

- a certificate,
- a part enabling the evaluation of determinants for using intuition in decision-making practice identified on the basis of a literature analysis,
- a part diagnosing the level of respondents' intuitive potential,
- a part determining the degree of using intuition in making decisions.

The objective of the study from the methodological point of view was to develop an instrument that would use the achievements of other authors in the area of intuition, but at the same time would also contain new proposals. Therefore, some solutions proposed in the AIM questionnaire designed by W.H. Agor were used (Agor, 1998). The

similarity between the tools is related to the use of a few questions regarding the measurement of intuitive potential. The part of the questionnaire that allows for determination of the degree of using intuition in decision-making processes is entirely the author's proposal.

The part of the questionnaire that allowed to identify the level of the decision-maker's intuitive potential consisted of 12 closed-ended questions relating to the characteristics, abilities, skills, and predispositions of the respondent. For each question, it was possible to choose one of the two proposed answers, each of which indicated a specific potential of the decision maker: analytical or intuitive. For the purposes of interpreting the obtained responses, it was assumed that if the respondents gave 7–12 responses in favour of rational analysis, this meant a bias towards the respondent's analytical potential and, analogically, in the case of selecting 7–12 responses in favour of intuition, it indicated a bias towards intuitive potential. The author assumed the existence of one more possibility – a balance between analytical and intuitive potential – which occurs when an equal number of responses is given, showing both an analytical and intuitive predisposition (6/12 answers in favour of intuition and 6/12 answers in favour of rational analysis).

In order to identify the degree of intuition used in decision-making process the final part of the questionnaire was prepared. This part was formulated based on a description of the two extreme approaches used in decision-making: rational and intuitive. An analysis and critical evaluation of Polish and foreign literature revealed aspects of the decision-making process that were generally taken into

account, so that the extent to which intuition was used in decision-making (the relationship between rational analysis and intuition) could be determined. At the same time, these aspects were the criteria for operationalisation and differentiation of intuition and rational analysis. They included the location of the decision problem, how it is solved, the evaluation of other decision variants, the approach to risk and uncertainty, the use of information sources, applying information processing procedures, documenting the decision process, the involvement of the decision-maker in the decision process, logic in thinking, awareness in action, and the ability to conceptualise the decision process. Respondents were asked to answer 12 closed-ended questions by choosing one of two possible answers. For each question the choice made clearly indicated the use of one of the two approaches to making decisions: rational (analytical) or intuitive.

The research procedure was based on the cognitive theory of the continuum (Allinson, Hayes, 1996), according to which analytical and intuitive approaches to decision making coexist in management practice. These are the two opposing approaches to making choices. In practice, there are rarely “pure” variations of these decision-making styles. Most often, decision-makers represent combinations of these two ways of cognition and thinking, namely quasi-intuitive (decision-making is more intuitive than analytical), balanced (the approaches are balanced), or quasi-rational (decision-making is more analytical than intuitive).

The classification of individual decision-making methods was based on the following assumptions:

- 11–12 pro-intuition answers meant they used the intuitive approach,
- 8–10 pro-intuition answers meant using a quasi-intuitive approach,
- 6–7 pro-analysis/pro-intuition answers meant a balanced approach was used,
- 8–10 pro-analysis answers meant using a quasi-rational approach was used,
- 11–12 pro-analysis answers meant a rational approach was used.

In order to evaluate the significance of the determinants, the respondents were asked to mark, on a scale of 1–5, to what extent the proposed factors force the use of intuition. The scale has been broken down as follows: 1 – the factor is of no importance, 2 – the factor is not very important, 3 – the factor is of average importance, 4 – the factor is important, 5 – the factor is very important.

Of course, the use of a questionnaire in an empirical study, particularly as regards such a complex phenomenon as intuition, has its limitations. Foremost among them is that the answers obtained in this way are burdened with a certain degree of subjectivity on the part of respondents. That subjectivity may represent their opinions to a greater extent than the reality which they are supposed to be describing. In order to reduce this risk, pilot studies were carried out and the reliability of the tool was analysed by verifying its internal consistency (the questions that significantly reduced its consistency were removed).

Quantitative surveys were carried out using the CATI method; ultimately resulting in 300 correctly completed questionnaires. The selection of the sample was random, layered, and disproportionate (so that companies of different sizes were included). The survey was addressed to top-level managers. 173 women and 127 men participated in the study. 83% of the respondents represented enterprises employing 10–49 employees, 15% – enterprises employing 50–249 employees. The rest were employed in large enterprises (employing over 250 employees). The vast majority of respondents had a university degree (60%) and experience in the range of 5–10 years (36%) and 10–20 years (27%). The functional areas represented by the respondents included mainly: sales, management, administration, and finance.

In order to determine statistically significant relationships between the identified determinants and the degree of using intuition in decision-making processes, statistical analyses were performed using the statistical package PQStat, version 1.8.2.156. These analyses were conducted by estimating simple regression models. In general, a regression model enables the study, analysis, and interpretation of the relationship between a dataset (Y) called a dependent or response variable, and an independent or explicative variable (X) through a linear function defined by $Y = aX + b$, where a and b are real constants (Núñez et al., 2011). Regression analysis is a data analysis technique that enables the modelling of data by applying a straight line. Consequently, it becomes possible to describe the relationship between the variables using a regression equation with two parameters: the constant and the slope. The interpretation of the strength and relationship between the variables is performed on the basis of the value of the beta standardized coefficient, on the basis of which the strength and direction of the relationship between the explanatory and explained variable can be determined. A probability test at the level of $p < 0.05$ was considered significant, and a probability test at the level of $p < 0.01$ was considered highly significant.

The results of empirical research

For the purposes of these considerations, the aforementioned assumption was made, according to which having intuitive potential (personality traits, abilities or predispositions facilitating the use of intuition in making decisions) is not the same as using intuition in practice. The literature highlights a number of additional factors conditioning this process (they are listed in the literature part of the article). However, analysing the collected data with the use of a simple regression model allows for the formulation of conclusions about the highly significant influence of intuitive potential on the degree of using intuition in the practice of decision-making (the test probability was < 0.0001). It means that the first hypothesis (H1: There is a positive relationship between having the high level of the intuitive potential and the degree of using intuition in decision-making processes) has been positively

Table 2. Influence of determinants on the degree of using intuition in decision-making processes – statistical analysis

Scale prediction - The degree of using intuition in decision making								
	Coefficient b	Standard error b	-95% confidence interval for the coefficient b	+95% confidence interval for the coefficient b	Test statistic	p-value	Standardized coefficient b	Standard error of the correlation coefficient
Intercept	1.8245	0.4387	0.9612	2.6878	4.1591	<0.0001		
Intuitive potential	0.6941	0.0703	0.5558	0.8324	9.8775	<0.0001	0.4966	0.0503
Intercept	4.0654	0.6403	2.8052	5.3256	6.3487	<0.0001		
Conditions for making decisions	0.5439	0.1816	0.1864	0.9013	2.9945	0.0030	0.1709	0.0571
Intercept	4.549	0.4952	3.5745	5.5236	9.1859	<0.0001		
Organizational culture	0.4366	0.149	0.1435	0.7297	2.9312	0.0036	0.1674	0.0571
Intercept	4.4655	0.7012	3.0856	5.8454	6.3687	<0.0001		
Type and structure of the decision problem	0.435	0.2039	0.0337	0.8363	2.1334	0.0337	0.1227	0.0575
Intercept	7.147	0.7314	5.7075	8.5864	9.771	<0.0001		
Expert knowledge	-0.3298	0.1916	-0.7069	0.0472	-1.7214	0.0862	-0.0992	0.0576
Intercept	6.6056	0.7242	5.1803	8.0309	9.1207	<0.0001		
Experience	-0.1776	0.1827	-0.5372	0.1819	-0.9722	0.3318	-0.0562	0.0578
Intercept	5.0636	0.5978	3.8872	6.2399	8.4709	<0.0001		
Emotional intelligence	0.2534	0.17	-0.0812	0.588	1.4903	0.1372	0.086	0.0577
Intercept	5.6247	0.7485	4.1516	7.0977	7.5143	<0.0001		
The ability of the decision maker	0.0834	0.2061	-0.3221	0.4889	0.4045	0.6861	0.0234	0.0579
Intercept	5.4325	0.7556	3.9455	6.9196	7.1895	<0.0001		
Awareness of your own cognitive process	0.1355	0.205	-0.2679	0.539	0.6611	0.5091	0.0383	0.0579
Intercept	5.5597	0.7768	4.031	7.0883	7.1575	<0.0001		
The preferred method of obtaining and processing information	0.1016	0.214	-0.3196	0.5228	0.4747	0.6353	0.0275	0.0579
Intercept	4.4022	0.7363	2.9532	5.8511	5.9791	<0.0001		
Personality type of the decision maker	0.4158	0.1967	0.0288	0.8029	2.1146	0.0353	0.1216	0.0575
Intercept	4.9771	0.6887	3.6216	6.3325	7.2263	<0.0001		
Attitude towards life	0.2595	0.1841	-0.1027	0.6218	1.4099	0.1596	0.0814	0.0577
Intercept	5.4548	0.5426	4.3871	6.5226	10.0537	<0.0001		
Physical and mental condition	0.1342	0.1491	-0.1593	0.4276	0.8999	0.3689	0.0521	0.0578

Source: own study



verified. However, it should be remembered that this is not the only factor determining the use of intuition (in the study, all determinants influencing the degree of using intuition in decision-making processes included in the proposed typology were assessed).

Based on the analysis of the collected data, it can be noticed that determinants that received the highest ratings from respondents (determinants to which the respondents rated 4 or 5 on a scale of 1–5), are the expert knowledge possessed by the decision-maker (223 ratings – 74% of respondents); experience in a specific area (217 ratings – 72% of respondents); meta cognitive skills or awareness of one's own cognitive process (177 ratings – 59% of respondents); the method of obtaining and processing information preferred by the decision-maker (173 ratings – 58% of respondents); personality type (171 ratings – 57% of respondents); and attitude towards life or success orientation (170 ratings – 56% of respondents). These ratings were given by the entire population of respondents, representing all potential ways of making decisions, i.e. intuitive, quasi-intuitive, balanced, quasi-rational and rational. It can be noticed that all determinants distinguished by the respondents are of internal nature, i.e. they are related to the decision-maker himself.

The main objective of this article was to determine the impact of individual determinants on the degree of using intuition in decision-making processes, i.e. to determine the factors that really induce decision-makers to apply intuition in practice. For this purpose, in the first phase of the study, respondents using intuition in making decisions were identified (respondents who qualified as using an intuitive or quasi-intuitive decision-making style). Only the questionnaires of these respondents were subject to further analysis. In order to determine the influence of determinants on the degree of using intuition, simple regression models were used where the independent variables were taken as individual determinants, and the dependent variable was the degree of using intuition in decision making. On this basis, four determinants were identified that have a highly significant impact on the degree of using intuition in decision-making processes. These determinants are as follows: decision-making conditions, organisational culture in the enterprise, the type and structure of the decision problem, and the type of personality of the decision-maker (see Table 2 for details). It should be noted that these determinants are mostly external (decision conditions, structure and type of problem, and organisational culture), except for the decision maker's personality type, which is of internal nature. Thus, the second research hypothesis was confirmed, according to which the most important determinants of using intuition in decision-making process are external (H2).

Based on the data included in Table 2, the following dependencies were recognised:

- the level of intuitive potential shows a highly significant ($p < 0.01$) influence on the degree of using intuition in decision-making processes. Increasing the level of intuitive potential by 1 point increases the degree of using intuition by 0.6941 points;

- the determinant „conditions for making decisions” (time pressure, risk and uncertainty, lack or excess of information)” shows a highly significant ($p < 0.01$) influence on the degree of using intuition in decision-making processes. Increasing the result of this determinant by 1 point increases the degree of using intuition by 0.5439 points;
- the determinant „organisational culture prevailing in the company” (e.g. accepting and encouraging experimentation and learning)” shows a highly significant ($p < 0.01$) influence on the degree of using intuition in decision-making processes. Increasing the result of this determinant by 1 point increases the degree of using intuition by 0.4366 points;
- the determinant „type and structure of decision problems” (unstructured, unique, complex problems)” shows a highly significant ($p < 0.01$) influence on the degree of using intuition in decision-making processes. Increasing the result of this determinant by 1 point increases the degree of using intuition by 0.4350 points;
- the determinant „type of personality of the decision-maker” (e.g. self-confidence, openness, propensity to risk)” shows a highly significant ($p < 0.01$) influence on the degree of using intuition in decision-making processes. Increasing the result of this determinant by 1 point increases the degree of using intuition by 0.4158 points.

Conclusions and discussion

The conditions in which modern enterprises operate, related to the complexity, changeability, and unpredictability of the environment, make it increasingly difficult for managers to act on the basis of a rational decision-making process. Unstructured problems and the need to cope with strong global competition force them to use intuition as an alternative or supplement to the analytical decision-making process. This approach enables the decision-making process to be shortened and non-standard solutions to be found, as the intuitive process is considered to be a creative mental process.

The use of intuition in decision-making processes is not an obvious process. Its course and effectiveness are influenced by many factors, both internal and external. Having an intuitive potential (specific personality traits, predilections, or preferences regarding the method of making decisions) is not a sufficient condition to use intuition in practice. However, based on the conducted empirical research, it can be noticed that the level of intuitive potential of a decision maker has a highly significant impact on the degree of using intuition in practice (an increase in the intuitive potential score by 1 point increases the use of intuition in decision-making processes by 0.6941 points). This means that decision makers having higher intuitive potential are more likely to use intuition compared to decision-makers with a lower level of this potential. However, it should be borne in mind that there are other factors influencing the use of intuition in

the decision-making process. The conducted research showed that the determinants influencing the use of intuition in decision-making are as follows:

- decision-making conditions (related to time pressure, the degree of risk and uncertainty as well as a lack or excess of information) – these conditions mean managers look for an alternative to time-consuming analysis in order to shorten the decision-making process; in addition, the necessity to function in conditions of strong competition forces the need to stand out and look for market opportunities; the answer to these problems may be the use of intuition – an automatic mental process that enables decisions to be made faster than with an analytical approach; due to the fact that intuition is a creative process, it facilitates the creation of a unique solution to a decision problem;
- organisational culture prevailing in a given enterprise – organisational culture supporting the process of experimenting and learning, building an atmosphere of mutual trust and openness, will positively influence the degree of using intuition in decision-making processes;
- type and structure of decision problems – contemporary managers face the need to solve unique, complex, unstructured problems, especially at the strategic level; these types of problems, requiring a creative and unconventional approach, are most often solved with the use of intuition;
- personality type of the decision maker (related to such features as openness, risk-aversion, or self-confidence) – in accordance with the personality typology proposed by J.L. Holland (1997), there are personality types that determine the use of intuition; these include the entrepreneurial and artistic type (possibly also conventional or sociable, which facilitate the integration of an intuitive and rational approach).

It should be noted that the determinants which, on the basis of statistical analysis, have been identified as having an impact on the degree of using intuition in decision making belong to the group of external determinants. Only one of them is internal and relates directly to the decision-maker (personality type).

Summarising the considerations presented in this article, it can be stated that intuition is a real phenomenon that plays an important role in the decision-making process. The conducted empirical research allowed for identification of the factors that have a highly significant impact on the degree of using intuition. These cognitive results may constitute a starting point for further in-depth research in this area. There are many models and empirical data suggesting the influence of intuition on the effectiveness of decision-making processes. However, the question of the factors influencing the effectiveness of using intuition in decision-making processes remains open and cognitively interesting. Finding an answer to this question would require both quantitative and qualitative research (possibly in the form of experiments). The issue of team intuition is also being raised more and more frequently in the literature

(Elbanna et al., 2015; Ali et al., 2016; Akinci, Sadler-Smith, 2019; Samba et al., 2019). It would seem justified to conduct more extensive research on this type of intuition, especially in the context of the determinants of its effective use. This is important due to the fact that decisions in enterprises are ever more frequently made in groups, while research on intuition is usually conducted in the context of an individual – a decision maker. There is also a need to conduct research on organisational factors that facilitate the use of intuition; such as organisational structures, strategy, and organisational culture. Another area of research in the field of intuition that requires exploration is to undertake further work on more detailed development and verification of the intuition management system, which would enable the assessment and development of the intuitive potential of employees (Jędrzejczyk, 2013). All of the above proposed future directions of research suggest that in the area of management there is a need to pay more attention to cognitive processes implemented in enterprises, including, above all, intuitive processes.

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Determinanty wykorzystania intuicji w podejmowaniu decyzji kierowniczych

Streszczenie

Celem artykułu jest określenie, jakie determinanty wpływają na wykorzystanie intuicji w praktyce podejmowania decyzji. Dążąc do realizacji tak sformułowanego celu, przeprowadzone zostały badania empiryczne na grupie 300 osób zarządzających. Wpływ poszczególnych determinant na stopień wykorzystania intuicji w procesach decyzyjnych określony został przy wykorzystaniu modelu regresji prostej.

Artykuł składa się z czterech zasadniczych części. W pierwszej podjęto próbę zdefiniowania niejednoznacznego

pojęcia intuicja oraz określenia jego cech charakterystycznych. Następnie dokonano przeglądu literatury z obszaru intuicji w zarządzaniu w celu zidentyfikowania potencjalnych determinant zastosowania intuicji w procesach decyzyjnych. Umożliwiło to sformułowanie autorskiej typologii czynników wpływających na wykorzystanie intuicji w praktyce. W dalszej części zaprezentowano wyniki badań będące weryfikacją zaproponowanej, w części literaturowej artykułu, typologii. Artykuł kończą wnioski oraz rekomendacje dotyczące przyszłych kierunków badań.

Słowa kluczowe

intuicja, racjonalna analiza, proces podejmowania decyzji, zarządzanie
