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Exploring Gender Differences in Strategic Thinking: A Five-Dimensional Profiling Approach

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Abstract

Aim: To identify gender differences in strategic thinking profiles using an original five-dimensional scale based on: the approach to change, the approach to the competitive environment, the information processing style, the level of participation and the level of flexibility.

Methodology: Data from 184 Polish top managers and company owners were collected using a CAWI technique and analysed through PROFIT (Property Fitting) analysis.

Results: The results reveal distinct strategic thinking profiles: women are more exploratory, relational and intuitive, whilst men are more analytical, competitive, and emergent. Women prefer an individualistic style during strategy formulation and a collective style during implementation, whereas men favour collaborative idea generation but top-down execution.

Implications and recommendations: The findings suggest that gender diversity in top management teams broadens strategic perspectives and increases organisational resilience in diverse environmental conditions. One of the future research directions is to include representatives of different cultures. Another direction in future research is to use PROFIT analysis to identify differences in other variables, such as respondents' age and field of education, to understand the antecedents of strategic thinking.

Originality/value: This study's contribution is to show gender diversity as a key to developing top teams with a broader perspective and more opportunities to build an effective strategy, and to use the PROFIT analysis which is not adequately popularised in management science.

Keywords: strategic thinking, PROFIT (PROperty FITting) analysis, gender differences

1. Introduction

Strategic thinking has been recognised as an individual mental activity and cognitive approach to discovering and solving unconventional problems influenced by both context and personal characteristics (Dixit et al., 2021; Wąsowska, 2014). It is seen as a creative, open-ended, and iterative process that precedes more deliberate, detailed, and formalised strategic planning (Heracleous, 1998). Given that strategic thinking is an individual activity, strategic thinkers themselves, defined as leaders making decisions in an enterprise (Eisenhardt, 1990) and bearing responsibility for the organisation's management (Bonn, 2005) are vital to this process, along with their personal attributes, predispositions and abilities.

The theory indicates that strategic thinking is a multidimensional construct. In previous stages of this research project, the authors identified five strategic thinking dimensions – see Table 1 (Piórkowska et al., 2022). Every strategist can be evaluated across each of these dimensions, leading to a unique combination of strategic thinking features in a personalised profile.

Strategist profiling assumes that strategic thinkers are not homogenous and that the way they think and make decisions can be considered a source of competitive advantage for an organisation (Bajcar, 2017; Czakon, 2022; Krawiec, 2003; Olson & Simmerson, 2015). Various studies on strategic thinkers highlighted differences among them, for instance, by age (Hambrick & Mason, 1984), education level (Goldman, 2007), and individual experience (Casey & Goldman, 2010), however scarce research has addressed gender differences in strategic thinking style, presenting a gap for further exploration.

Numerous stereotypes regarding the differences and similarities between men and women in leadership and entrepreneurial roles persist, often linked to varying life experiences shaped by societal roles, distinct attitudes and predispositions (Szymańska-Migut, 2012). However, many on feminine and masculine leadership styles have yielded inconclusive or conflicting results (Faizan et al., 2018). This paper draws on evidence suggesting that there is no substantial disparity between men and women regarding the quality of business decision-making (Johnson & Powell, 1994), however this does not preclude the existence of differences in the approaches and cognitive processes employed in decision-making.

This study aimed to determine if distinct strategic thinking profiles exist across genders, focusing on cognitive aspects measuring strategic thinking dimensions by employing the authors' own strategic thinking scale (Piórkowska et al., 2022). The following research questions[1] were addressed:

- Do men and women differ in any of the five strategic thinking dimensions: an approach to change, an approach to the competitive environment, information processing and decision-making style, level of participation, and level of flexibility?
- What features describing the five strategic thinking dimensions are characteristic of different genders?
- Do men and women represent complementary strategic thinking profiles?

The study applied a quantitative approach. The authors conducted questionnaire research using the CAWI technique with randomly selected company owners and top managers (n=184) responsible for formulating strategy and having at least five years of managerial experience, and used a 30-item, 7-point validated scale (Piórkowska et al., 2022). To examine the differences in strategic thinking profiles of women and men, PROFIT (PROperty FITting) analysis was employed, which offers distinct advantages over other statistical methods. Unlike traditional approaches such as correspondence analysis, PROFIT analysis provides a more insightful examination of data features, especially when dealing with complex datasets containing both categorical and continuous variables.

2. Theoretical Background

2.1. Multidimensional Framework of Strategic Thinking

Strategic thinking has been recognised as an individual activity influenced by the context in which it occurs and the personal attributes of strategic thinkers (Dixit et al., 2021; Liedtka, 1998; Rhee & Moon, 2025). The literature presents different views of strategic thinking, focusing on: (1) activities, such as scanning, questioning, conceptualising, and testing (Casey & Goldman, 2010), (2) purposes or outputs of strategic thinking, including groundbreaking visions and novel strategies (Heracleous, 1998), and (3) the features of the strategic thinking process itself. The latter perspective describes strategic thinking as unconventional, open-ended, creative, inductive, lateral, synthetic, holistic and iterative (Goldman et al., 2017), contrary to analytical, detailed and formalised strategic planning (Geier, 2024; Heracleous, 1998; Jammulamadaka, 2024).

The primary components of strategic thinking include a systems perspective, reflection, creativity, and vision (Bonn, 2005; Dhir et al., 2018; Srivastava & D'Souza, 2021). Additionally, some scholars incorporated trend analysis, pattern recognition and intelligent opportunism into the framework (Liedtka, 1998).

The variety of conceptualisations reveals strategic thinking as a complex and multifaceted phenomenon (Bajcar, 2017). To develop a comprehensive construct of strategic thinking, the study employed a systematic literature review, which enabled to identify five dimensions of strategic thinking – each represented by two extreme features – which constitute the endpoints of the dimension's continuum. The dimensions are: (1) an approach to change: exploitation vs exploration; (2) an approach to the competitive environment: confrontation vs game; (3) information processing and decision-making style: intuitive vs analytical; (4) level of participation: collective vs individualistic; (5) level of flexibility: deliberate vs emergent. All the strategic thinking features are neutral, and their combination builds an individual strategic thinking profile.

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[1] This study posed research questions rather than formal hypotheses, mainly for two reasons. First, the study is exploratory in nature, aiming to investigate a complex and under-researched phenomenon related to the role of gender in strategic thinking profiling. Formulating hypotheses a priori might have led to premature assumptions and constrained the scope of inquiry. Second, the research was practice-oriented, with the objective of generating typologies of strategic thinking profiling from a gender perspective. The research questions are more likely to align outcomes with practical applications.

Table 1. Dimensions of strategic thinking

Dimensions	Features	Description
Approach to change (Bonesso et al., 2014)	Exploration	Ground-breaking and brave visions, fast and radical changes, focus on new products and markets, strategies without resource limitations (stretch approach), high-risk acceptance
	Exploitation	Continuity, slow changes and optimisation focus on tested products and markets, strategies limited by resources (fit approach), low-risk acceptance
Approach to the competitive environment (Iriyama et al., 2016)	Confrontation	The market environment is seen as a war or battle, with a competitive mindset, competitors seen as playing unfair, highly competitive strategies focused on competitors' elimination, and win-lose strategy in the game theory lens
	Game	The market environment is seen as a game with established rules, a cooperative mindset, other actors seen as fair players or potential partners, focus on gaining a competitive advantage over rivals, and win-win strategies in the game theory lens
Information processing style (Goldman et al., 2017)	Intuitive	Fast information processing, holistic view, the use of heuristics and simple rules, strategic thinking is a creative process based on imagination, hunches, and intuition
	Analytical	Slow and conscious information processing, bottom-up view, decisions based on data analysis, detailed thinking, logical and rational approach
Level of participation (Bonn, 2005)	Individualistic	Strategic thinking as an individual and elite process, ideas and visions come from the guru, interactions during strategy development are rare, top-down strategy communication, lack of methodological support and group work
	Collective	Strategic thinking is seen as a group process, interactions, and two-way communication involving external experts and consultants, use of strategic workshops, seminars, and discussions
Level of flexibility (Meyer, 2007)	Deliberate/Planned	Focused on ex-ante goals and paths, rigid in following goals, unidirectional and consistent in thinking, sequential and sticking to time frames and deadlines, the plan always precedes decisions and actions
	Emergent	Flexible thinking, variant and non-sequential, open and opportunity-seeking, not sticking to time frames and deadlines, plans, decisions, and actions may intertwine

Source: own work.

2.2. Literature Review of Gender Differences in Strategic Thinking Dimensions

The research findings on the relationship between gender and strategic thinking ability are varied and, to some extent, contradictory. Some studies indicated that gender might influence strategic thinking, suggesting differences between women and men, whereas others found no significant gender-related differences.

For instance, Young (2016) suggested that gender could serve as a predictor of strategic thinking ability (vs non-strategic thinking), yet he clarified that this is speculative and that no concrete evidence supports or refutes this idea. Jelenc et al. (2016), in their search for demographic variables affecting strategic thinking, found that female entrepreneurs scored higher in system thinking and reframing, thus showing a higher overall strategic thinking ability. Similarly, a study by Dragoni et al. (2011) identified gender as a variable predicting strategic thinking competencies.

Other studies revealed no gender-related differences in strategic thinking competency. For example, Pisapia et al. (2009) examined 328 English-speaking students at The Chinese University of Hong Kong and discovered no significant gender differences in systems thinking and reflection.

The authors of this study looked for variance within the group of strategic thinkers through a five-dimensional model. In the research regarding these five dimensions, gender emerged as a potential factor influencing the strategic thinking profiles of individuals. The most critical literature findings regarding the five distinguished dimensions of strategic thinking in the context of gender are presented below.

The research on gender and ***approach to change*** in organisations (exploration *vs* exploitation) has returned mixed results. Some studies suggest that women may exhibit more exploratory approaches in strategic thinking and decision-making. For example, Kagzi and Patky (2023) stated that the increase in board diversity (more women) leads to more exploration than exploitation. Other researchers found that women evaluate both the process and the context of change more positively than men (Deprez et al., 2012), which points to a more positive attitude towards change and exploration. On the other hand, other studies showed that female entrepreneurs were less likely to pursue organisational growth than males (Verheul et al., 2002) and tend to be more risk-averse (Hitchcock, 2001) due to differing risk perceptions as women often rate certain risks as higher than men do. Thus, some studies indirectly stated that board diversity is positively associated with exploitative and exploratory capabilities of companies, as female senior managers bring other learning styles and perspectives (Singh & Sinha, 2023). The literature reveals that gender differences in approach to change may be highly influenced by contextual and social factors, cultural norms and organisational values (Filippin & Crosetto, 2016).

The dimension ***approach to a competitive environment*** refers to the type of mindset individuals adopt, whether confrontative or more game-oriented. Some previous studies indicated that men are more competitive-oriented than women. For example, in the experimental studies by Cashdan (1998), women and men differed in what they competed over and how they approached competition, with the general conclusion in line with the popular stereotype. Similarly, a study conducted by Niederle and Vesterlund (2007) based on an experiment with 80 University of Pittsburgh participants showed that men and women perform equally well, but women shy away from competitive environments. In the same vein, another line of research explored the reasons and explanations for this difference, identifying various influences such as biological factors, socialisation, environmental expectations (Tungodden & Willén, 2023) or differences in beliefs (Kesebir et al., 2020), but a gap still exists in the knowledge of male and female competitiveness. Firstly, the majority of the research examined behavioural and not cognitive aspects. Secondly, most studies on competitive-cooperative mindset focused on children and young adults (students), with a shortage of evidence concerning the comparison between women and men in top-level managerial positions.

Information processing style determines how decisions are made. According to research, men and women demonstrate the same quality of decision-making (Johnson & Powell, 1994), also in high-risk situations in which women perform comparably well as men (Hudgens & Fatkin, 1985). Despite women's decisions being as effective as men's, women tend to have lower confidence in their judgement (Lenney, 1977). Efforts have been made to understand these disparities. One of the theories grounded in cognitive psychology addressing this issue is The Selectivity Model (Meyers-Levy, 1989), which explains the different information-processing styles of men and women. According to research, men are selective in processing information – they often do not consider all available information, focusing on specific, clear-cut attributes and using heuristic methods to simplify information processing and reduce data (Graham et al., 2002), whereas women tend to analyse information more comprehensively, in detail and with sensitivity to subtle cues (Benyamini et al., 2000). They tend to make more associations between pieces of information than men (Arcand & Nantel, 2012), even considering contradictory and disadvantageous aspects of an option, which men tend to overlook. Chung and Monroe (2001) found that men's decision-making effectiveness decreases as task complexity increases, whereas for women it remains stable. This suggests that women may feel more uncertainty in decision-making due to a higher awareness of situational contradictions and ambiguities (Graham et al., 2002).

The next dimension refers to the preferred ***level of participation*** (individual vs collective). There is a visible shortage in the literature on whether women are more individual or collective than men in their strategic thinking. However, a similar debate is ongoing in the general management literature, where researchers search for differences between female and male managers in their approach to employees and leadership style. This perspective often focuses on behavioural aspects, lower managerial levels, and a narrowed sample (e.g. entrepreneurs, accountants, etc.). Some studies

found no differences between male and female managers concerning employee participation and delegation of tasks (Verheul et al., 2002), while others revealed significant differences. For example, Hurst et al. (1989) showed that women are more likely to possess a 'feeling' cognitive style, enabling to inspire confidence among peers and subordinates, share information and power, bring people together and respond to challenges. Similarly, other researchers suggested that women managers tend to employ more interactive and participative leadership style. The research suggests that women in top-level positions are more collective in their strategic thinking process: more consultative, inclusive, and using various forms of methodological support for the strategic thinking process and strategy formulation.

The last identified dimension of strategic thinking is the ***level of flexibility*** (deliberate/ planned vs emergent). From this perspective, there is no clear evidence of differences in strategic thinking between male and female managers. However, there are some studies regarding general gender differences in flexible and intuitive versus rigid and focused thinking. For instance, Brett and Miles (2021), examined social patterns in reliance on automatic and deliberate cognition. The results indicated that men tend to be more deliberate and less emergent, automatic, and intuitive thinkers than women, who showed less preference for deliberative processes. Similarly, Bao et al. (2022) investigated gender qualities in deliberative thinking, and confirmed that males had strong preferences for it in comparison to females who focus on flexible, intuitive thinking. However, some authors indicated that gender differences in flexible vs rigid thinking are also strongly determined by other factors, e.g. age (Oakland et al., 2000), making the topic debatable. Interestingly, research results on deliberate and emergent strategic thinking in terms of gender could align with the studies on cognitive flexibility, as it is assumed that cognitive flexibility positively correlates with goal orientation (Yalcin & Kurnaz, 2021), whilst some confirmed that females had enhanced cognitive flexibility, while males demonstrated greater persistence (Morande et al., 2024).

3. Research Methods

3.1. Research goals and methods

This research aimed to determine if distinct strategic thinking profiles exist across genders. The authors posed three research questions:

- Do men and women differ in any of the five strategic thinking dimensions: an approach to change, an approach to the competitive environment, information processing and decision-making style, level of participation, and level of flexibility?
- What features describing the five strategic thinking dimensions are characteristic of different genders?
- Do men and women represent complementary strategic thinking profiles?

A quantitative approach was employed to answer the research questions, preceded by a literature review on strategic thinking and gender differences within five dimensions. The authors conducted questionnaire research using the CAWI technique with randomly selected Polish company owners and managers (n=184) responsible for formulating strategy and having at least five years of managerial experience. The 30-item, 7-point scale was validated using face validity as well as item discriminant validity and internal consistency reliability tests (Piórkowska et al., 2022). PROFIT (PROperty FITting) analysis was used to search for gender differences in five dimensions of strategic thinking and answer the research questions. This method is an extension of multidimensional scaling (MDS) (Zaborski & Pełka, 2013), a statistical technique used to visualise and analyse the pairwise similarities or dissimilarities between a set of objects in multiple dimensions. It aims to represent complex relationships in a lower-dimensional space, facilitating the interpretation and understanding of the underlying structure or patterns in the data. As a subsequent step to MDS, PROFIT analysis allows for

a more detailed and in-depth examination of pertinent data features, as it provides an interpretation of the obtained dispersion of objects and explains differences in the similarity map generated by MDS concerning the examined variables. This combined approach enabled a better capture of subtle differences between women and men in strategic thinking dimensions, offering a more comprehensive understanding and valuable insights. Drawing lines on the MDS map as part of PROFIT analysis allowed for additional knowledge of the data structure and relationships between variables. Thus, PROFIT analysis helped to identify which variables contribute to shaping the differences between groups, providing essential insights into the data structure and the interpretation of the MDS map.

In earlier studies correspondence analysis was conducted, primarily focusing on examining relationships between categorical variables. This provided a basis for inferring the existence of dependencies between indicators describing dimensions of strategic thinking, thereby defining various strategic thinking profiles. PROFIT analysis goes a step further, allowing for a more detailed exploration of fundamental patterns and relationships within the dataset. PROFIT analysis is particularly advantageous when dealing with complex datasets that involve a mix of categorical and continuous variables, offering a versatile and robust tool for uncovering meaningful insights.

3.2. Analytical procedure

The research procedure was carried out according to the following steps. First, multidimensional scaling was performed using the Euclidean distance, thus reducing the number of dimensions to two. Next, the estimation of regression model parameters was conducted according to the PROFIT concept. As a result of activities carried out within the framework of the above-described statistical procedure, a perceptual map was created illustrating similarities between women, men, and the entire sample in terms of their level of indices describing each dimension of strategic thinking and showing how individual indices have contributed to the positioning of the respondent groups on the map.

To label strategic thinking dimensions for statistical analysis, the authors used the following codes:

- CHNG – for the approach to change (with chng1, chng2, chng3, etc., referring to the consecutive items in the questionnaire),
- COMP – for the approach to the competitive environment (with comp1, comp2, comp3, etc., referring to the consecutive items in the questionnaire),
- INFO – for information processing style (with info1, info2, info3, etc, referring to the consecutive items in the questionnaire),
- PART – for the level of participation (with part1, part2, part3, etc, referring to the consecutive items in the questionnaire),
- PLAN – for the level of flexibility (with plan1, plan2, plan3, etc., referring to the consecutive items in the questionnaire).

In the research sample, 47% were female, 52% were male, and two respondents indicated "other" in response to the gender question. Among the respondents, there were owners or chief executives (19%) and top-level and middle-level management personnel – 38% and 43%, respectively. All the participants declared direct involvement in formulating and implementing the company's strategies.

4. Research Results: PROFIT Analysis

To determine whether men and women have different strategic thinking profiles, each item of the dimension was assessed separately, considering all the questions of the scale (Piórkowska et al., 2022). This allowed a more refined understanding of each dimension and the building of a coherent narrative regarding the male and female strategic thinking profiles. The points on the biplots in Figures 1-5 represent women (W), men (M), and the entire sample (ALL) for each dimension separately. The points in the pictures located closer to each other on the map signified higher similarity, whilst those farther

apart indicated more significant dissimilarity between the objects in terms of the analysed variables (survey questions). Interpreting the lines involved tracing how variables influenced the distribution of objects on the map (each line representing the item/question). The objects on one end of the line were more similar based on the indicators the line represents, and forming one group, whereas those on the other end constituted another group.

The first examined dimension of strategic thinking was the ***approach to change (exploration vs exploitation).*** Analysing the differences between women and men, one could observe that women are more exploratory than men in general (see Figure 1).

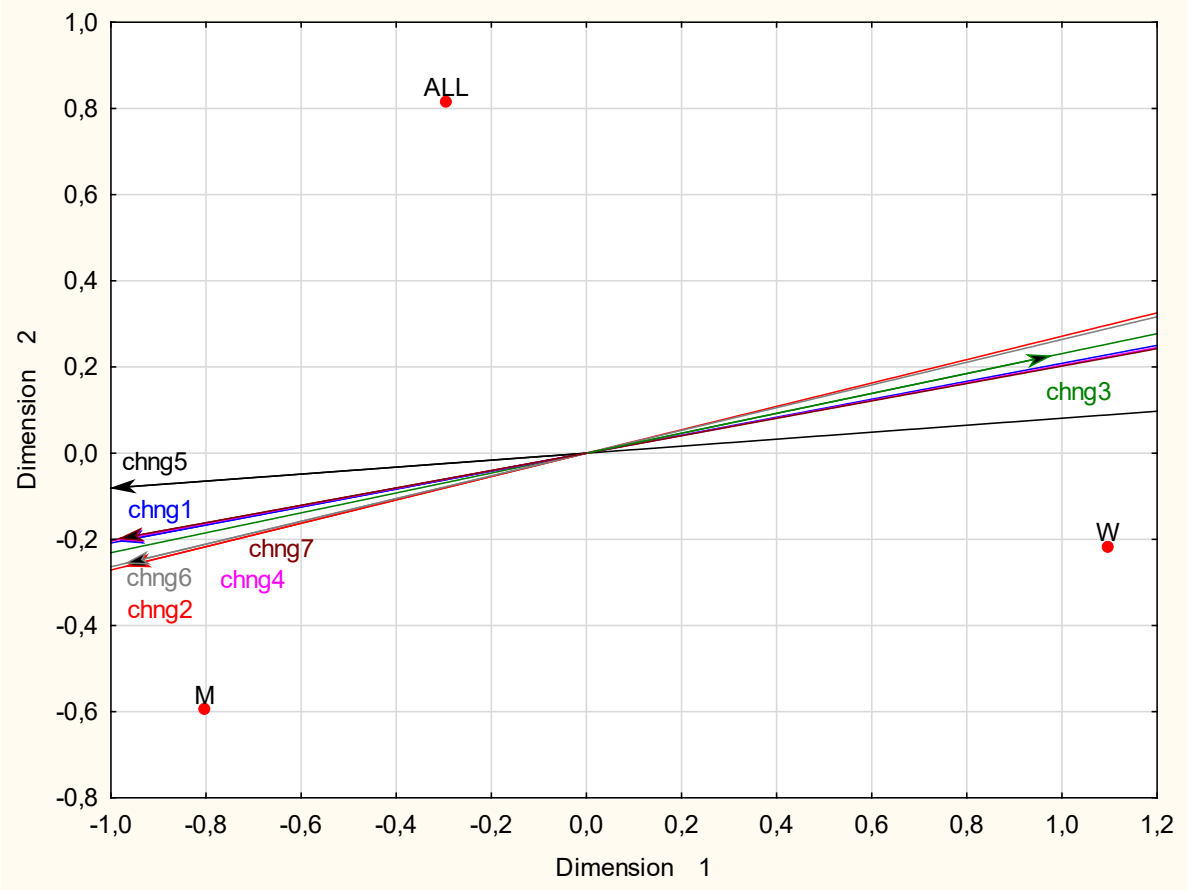

Fig. 1. Biplot of PROFIT analysis: an approach to change (exploration *vs* exploitation)

Key: W – woman, M – man, ALL – entire sample, chng – approach to change, chng1-chng7 – consecutive items in the questionnaire regarding the approach to change

Source: own study.

Women favour faster growth of the company (chng1) and more radical changes (chng2), as well as accept a higher level of risk in new projects (chng6, chng7). Men prefer more stable and balanced growth and low-risk strategies focused on optimisation. However, there is one exception concerning customers and markets, and one can see that women are more focused on maintaining and developing existing relationships and products (chng3) than men, who prefer looking for new customers and introducing new products. This observation shows that women may be more relational than men.

The second dimension of strategic thinking refers to the approach to the competitive environment (confrontation vs game). The PROFIT ANALYSIS shows differences between women and men in their attitudes both in the perception of the environment and planned actions against competitors (Figure 2).

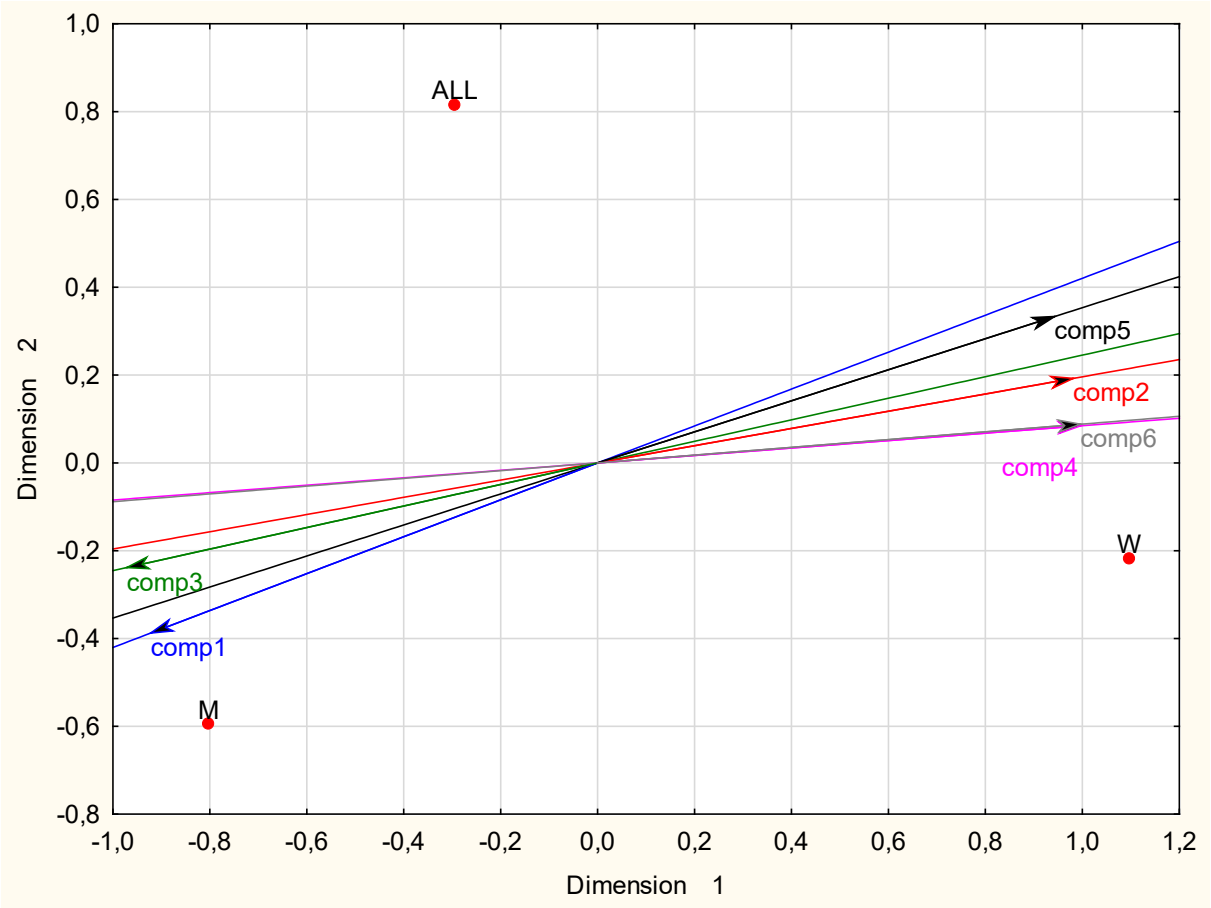

Fig. 2. Biplot of PROFIT analysis: an approach to the competitive environment (confrontation *vs* game)

Key: W – woman, M – man, ALL – entire sample, comp – approach to the competitive environment, comp1-comp6 – consecutive items in the questionnaire regarding the approach to competitive environment

Source: own study.

Women are generally less competitive and more focused on a game and cooperation. They declare using less aggressive strategies (comp4, comp5) and look for *win-win* strategies (comp6), seeing the market as a non-zero-sum game. Men, on the other hand, prefer more aggressive strategies, try to eliminate market rivals, and reveal a *win-lose* approach. They see the market as a zero-sum game through the lens of game theory.

At the same time, one can also observe that women show a lower level of trust towards the environment. They perceive the business environment as a war, not a game (comp1), and notice threats in the environment first before seeing the opportunities (comp3). However, when describing the real competitors, they are less competitive-oriented than men (comp2).

Differences between men and women can be seen within the dimension of ***information processing style***. When faced with a dilemma between an ***intuitive and analytical*** approach, men and women seem to gather, organise and evaluate data differently. Women present a somewhat more intuitive approach – they tend to make faster decisions based on rapid judgement (info1 and info2) and overview of the situation, prioritising speed over precision. Conversely, men present a more analytical approach, leading to more information gathering and consideration of alternatives and facts in decision-making (info2, info3) – see Figure 3.

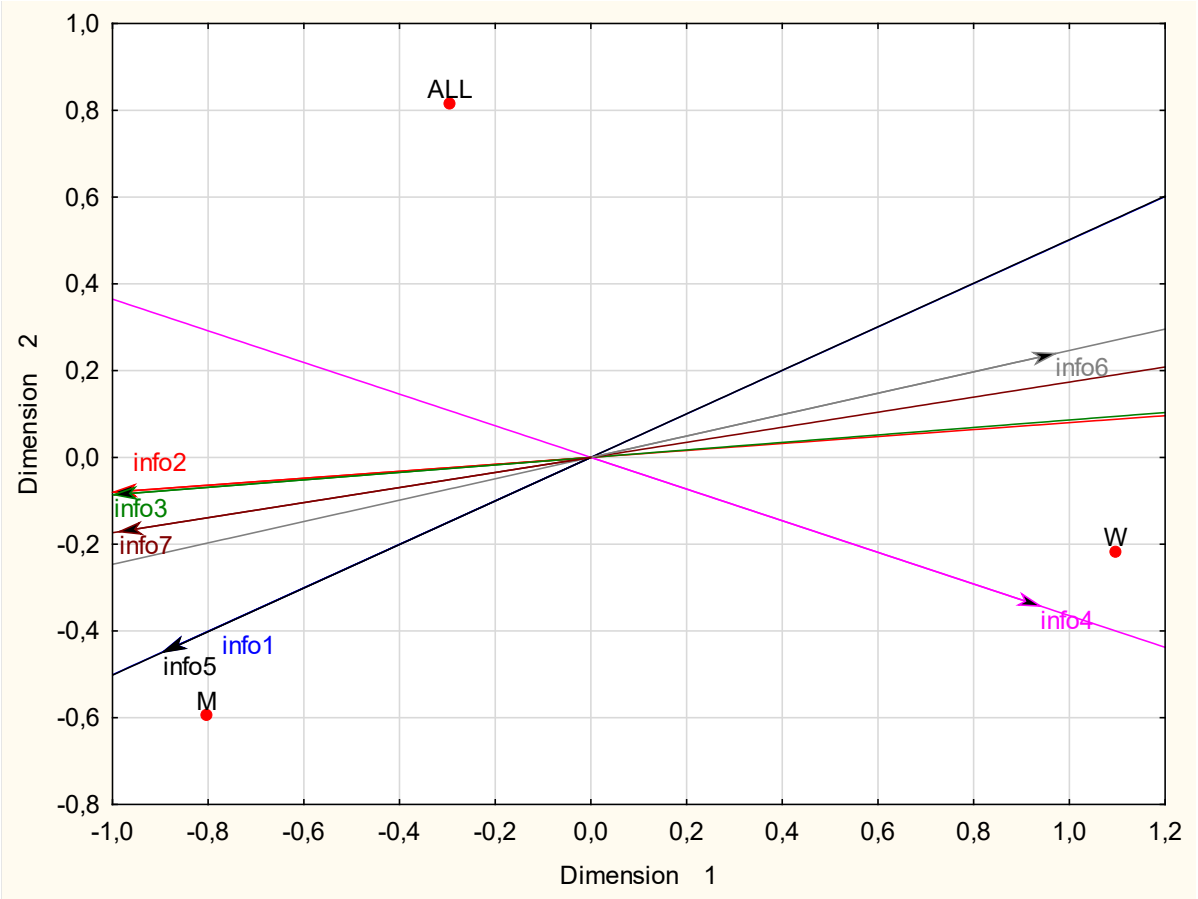

Fig. 3. Biplot of PROFIT analysis: information processing style (analytical vs intuitive)

Key: W – woman, M – man, ALL – entire sample, info – Information processing style, info1-info7 – consecutive items in the questionnaire regarding the information processing style

Source: own study.

For women, intuition is about trusting their experience and making rapid judgements of the overall situation (info2 and info5). It is not, however, about hot-headed or chaotic decisions (info4 and info6). For women, intuition is not erratic (info6) but quite the opposite – intuitive strategy making (info7) goes hand in hand with a structured and orderly approach (info6).

For men, the decision-making process is based on the precise analysis of facts and data and consideration of all the options (info1, info2, info3, info5). This is a slower and deliberate process, with a preference to work step by step and from start to finish (info7), however when making decisions, men are more at ease with a chaotic and fuzzy approach (info6) than women.

Regarding the ***level of participation*** in strategy-making, men and women prefer different approach. This dimension refers to the behavioural aspects of the strategic thinking style and determines the preference for a more ***individualistic or collective approach***.

In general, women are more individualistic about the sources of ideas and visions than men but more collective when it comes to strategy consultation processes (Figure 4).

Women see themselves as more individually independent and influential when creating a company's vision and inspiring the core directions and product ideas (part 1, part 2, part 6), and identify themselves as individualistic makers of the company's most strategic decisions. They also like to surround themselves with very few trusted advisors (part 5). Conversely, men prefer a more collaborative style of coming up with the company's visions and product ideas, choosing to look for inspiration among the team (part 1, part 2, part 6) and discussing strategic ideas with an extended group of consultants and advisors (part 5).

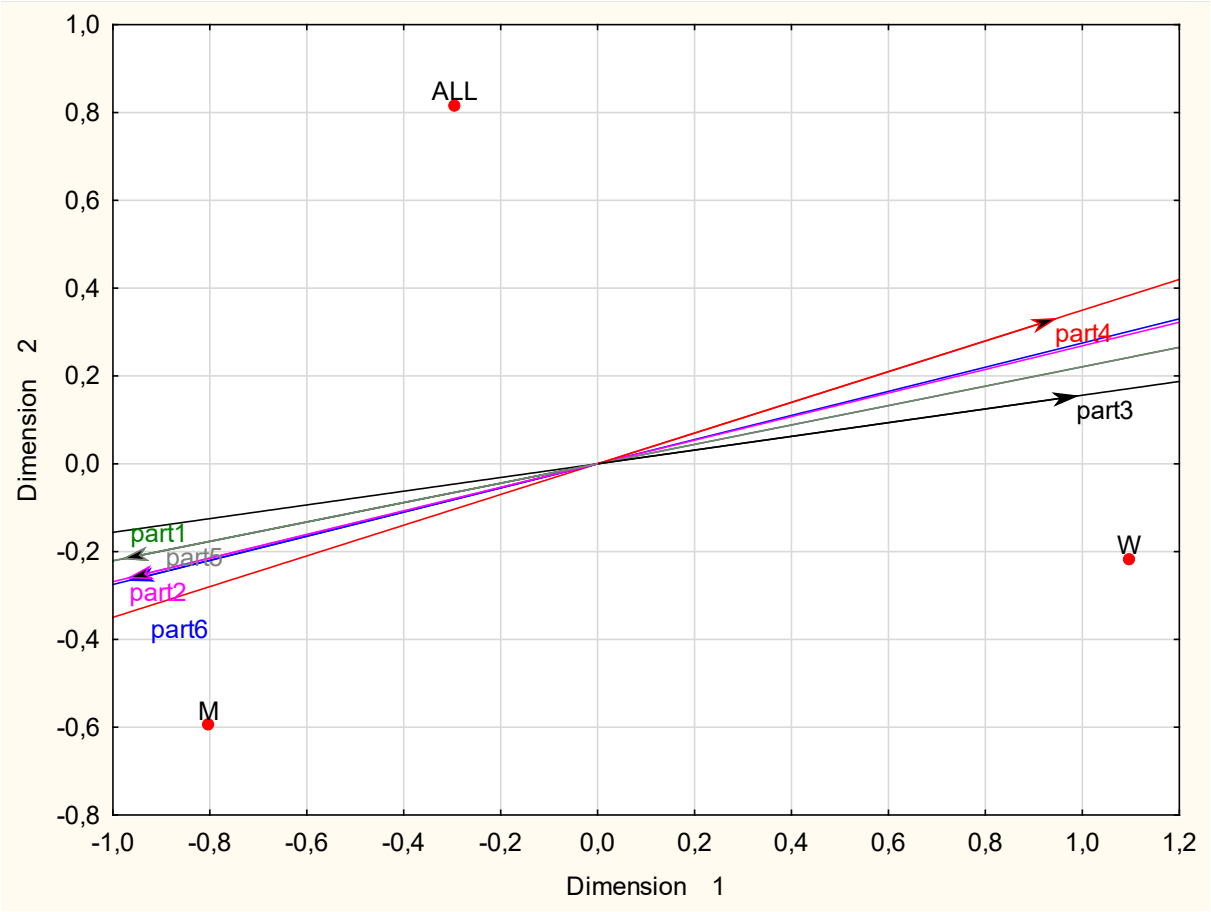

Fig. 4. Biplot of PROFIT analysis: level of participation (individualistic vs collective)

Key: W – woman, M – man, ALL – entire sample, part – level of participation, part1-part6 – consecutive items in the questionnaire regarding the level of participation.

Source: own study.

However, once the strategic decisions are made, men tend to act more 'top-down' and delegate (part 4), seeking support for what was decided rather than for further consultation. On the other hand, once the strategic decision has been made, women prefer more inclusive communication, collaboration, and consultations of specific solutions (part 3, part 4).

Women demonstrate a more individualistic style in setting up strategic direction, while men opt for broader ideas collection from the team and advisors, yet when it comes to strategy communication, women show more collaboration and are ready to consult ideas and gather feedback. Men focus more on passing the ideas down and securing support rather than further consulting.

The last investigated dimension of strategic thinking concerns the ***level of flexibility*** (***planned vs emergent***). Analysing the differences within this dimension, one can observe that men are generally more emergent than women in terms of flexibility of goals and time frames (see Figure 5).

Men are more adaptive in changeable environments (plan 1), and more flexible regarding time frames (plan 2). They are also more willing to change strategic goals when market opportunities appear to align with the strategy and make use of opportunities (plan 3; plan 4), whereas women are more focused on achieving established goals in the strategy, and feel more comfortable in the deliberate process of strategy-making with rigid time frames.

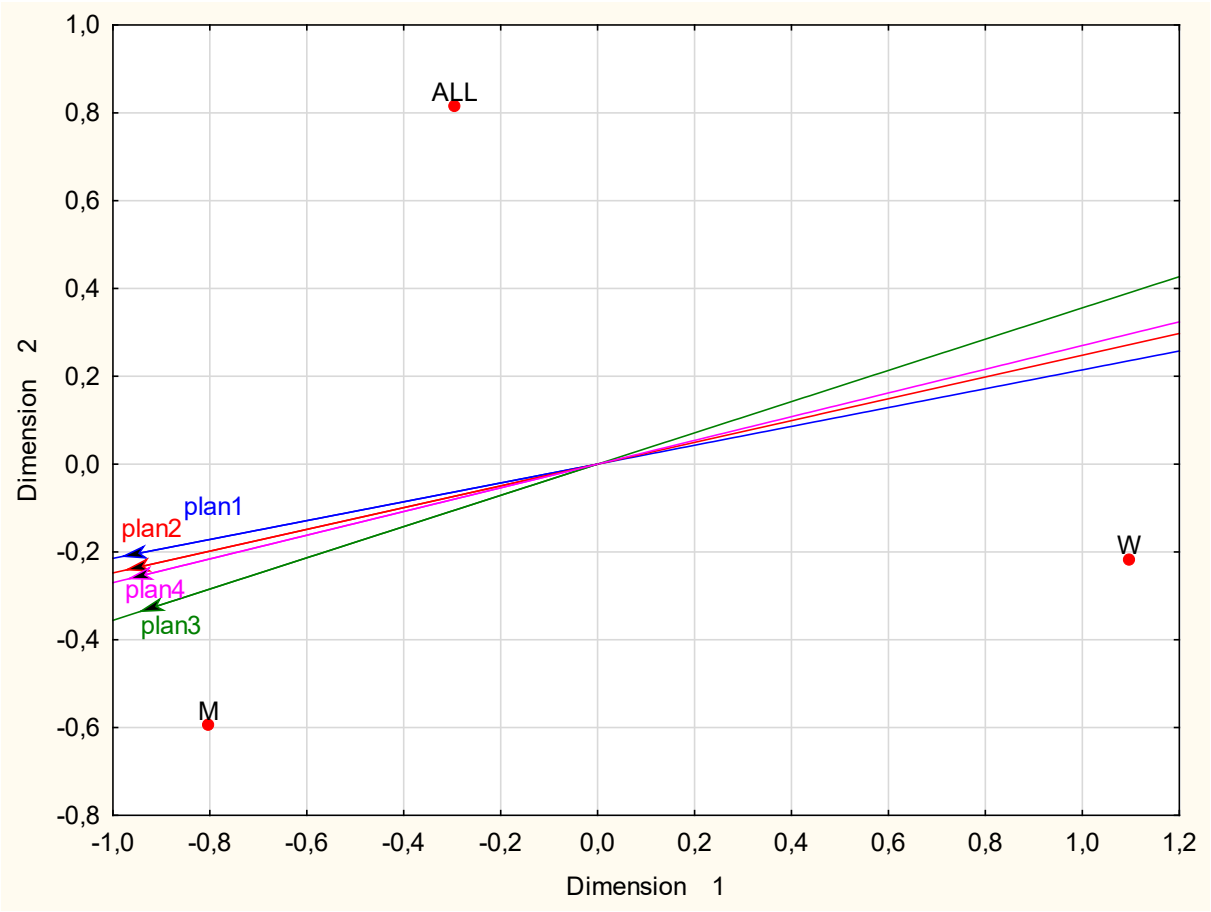

Fig. 5. Biplot of PROFIT analysis: level of flexibility (deliberate/planned *vs* emergent)

Key: W – woman, M – man, ALL – entire sample, plan – level of flexibility, plan1-plan4 – consecutive items in the questionnaire regarding the level of flexibility

Source: own study.

Table 2. Strategic thinking profiles of women and men across five dimensions

Dimensions	Gender	Strategic thinking profile
Approach to change	Women	Preference for faster growth and more radical change Acceptance for higher-risk solutions Focus on maintaining and developing existing relationships and products
	Men	Preference for stable and balanced growth Acceptance for lower-risk strategies and optimization Focus on developing new products and new customers
Approach to the competitive environment	Women	Less competitive, focus on cooperation with competitors Less aggressive, win-win strategies. The market is seen as a non-zero-sum game Less trusting
	Men	More competitive, focus on eliminating competitors More aggressive, win-lose strategies. The market is seen as a zero-sum game More trusting
Information processing style	Women	Fast decisions based on rapid judgement Intuitive strategy making Preference for structure and order
	Men	Analytical decisions based on a lot of data Deliberate strategy making Tolerance of fuzziness and chaos in decision-making

Dimensions	Gender	Strategic thinking profile
Level of participation	Women	Individualistic in formulating vision and goals Collective and consultative in strategy implementation
	Men	Collective in formulating vision and goals Individualistic and top-down in strategy implementation
Level of flexibility	Women	Less flexible with plans and goals Less flexible with time frames
	Men	More flexible with plans and goals More flexible with time frames

Source: own work.

The table sums up the study, highlighting the differences identified between female and male strategic thinking profiles, as assessed using the adopted five-dimensional framework.

5. Discussion and Conclusions

In terms of the research results, differences in strategic thinking profiles between women and men are noticeable, in particular if all individual items in each dimension were analysed separately. Even though the average results for each dimension were similar, the internal differences within dimensions showed that women have a different strategic thinking style than men and that both genders get to similar endpoints following a different process. This conclusion is important for improving top management team formation and strategy-making practices.

Within the dimension of the approach to change (exploration vs exploitation), women were found generally more exploratory than men, which was confirmed in other studies (cf. Deprez et al., 2012; Kagzi & Patky, 2023). The opposite result concerns maintaining and developing existing relationships and products by women, while men focus more on gaining new customers and developing new products.

Concerning the approach to the competitive environment (confrontation vs game), women were less competitive in their behaviour, for example using less aggressive strategies and searching for win-win options, which is supported by other studies (e.g. Niederle & Vesterlund, 2007; Tungodden & Willén, 2023) and general opinions on gender-related competitiveness. Interestingly, at the same time women showed a slightly lower trust and perceived the business environment as being more hostile than men.

Differences in information processing and decision-making style (intuitive vs analytical) suggest that women present a more complex overview with a higher awareness of situational ambiguities and a more intuitive approach than men, who tend to be more analytical and data-oriented. Women showed structured and ordered ways of processing information, whereas men demonstrated more tolerance to the fuzziness of the process, in line with other studies (e.g. Arcand & Nantel, 2012; Graham et al., 2002), however the literature delivers mixed and contradictory results concerning this dimension.

There were also some differences in the level of participation (individualistic vs collective) as one of the dimensions. According to the results of this study, women were more individualistic in creating visions and searching for inspiration than men. On the other hand, once the vision was shared, they preferred more inclusive communication and collaboration, as shown by other authors (cf. Kim & Shim, 2003). Men tended to follow the opposite approach in which they were more collaborative when formulating strategic goals and more top-down at the implementation stage.

In the dimension concerning the level of flexibility (planned vs emergent), women represented a more deliberate approach to strategic thinking than men. They were less adaptive in unstable environments and less flexible regarding time frames, preferring to concentrate on following the strategic plans as designed. They were also less willing to change strategic goals to use emerging market opportunities.

The study results show that the strategic thinking profiles of women and men are partially complementary within strategic thinking dimensions (at the item level). Depending on the situational context, e.g. the stage in the organisation's life cycle, economic situation, market competitiveness, and other forces, companies need both explorers and exploiters, confrontation and game-oriented strategists, etc. When formulating strategies in dynamic and unpredictable conditions, adopting a broader perspective and leveraging diverse strategic mindsets can improve the ability to anticipate different scenarios and develop a broader range of strategic options. This approach promotes greater adaptability and resilience in decision-making.

The findings also confirms that gender-diverse teams bring positive effects and a more balanced strategic approach, which is in line with the previous studies on team gender diversity that advocate for higher team creativity (Díaz-García et al., 2013), team collaboration (Bear & Woolley, 2011), organisational performance (Hunt et al., 2015), and a better understanding of complex phenomena and higher quality of decisions (Rogelberg & Rumery, 1996) in gender-diverse teams.

This study's contribution is to show gender diversity as a key to developing top teams with a broader perspective and, therefore, more significant opportunities to build an effective strategy. The authors also perceive the methodological contribution of this study as the PROFIT analysis is not being adequately popularised in management science.

The research also has certain limitations, since the research sample was culturally homogeneous. This limitation inspires future research on the diversity of teams in the context of strategic thinking profiles, including representatives of different cultures. Another limitation was that the authors did not use PROFIT analysis to identify differences in other variables, such as age, field of education, and leadership experience, which requires further exploration. Moreover, although PROFIT analysis provided valuable insights, it relied only on perceptual data, which may be subject to social desirability bias. Finally, longitudinal studies would be useful to examine whether strategic thinking profiles are static or dynamic in nature.

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Różnice płci w myśleniu strategicznym: profilowanie wielowymiarowe

Streszczenie

Cel: Celem artykułu jest zbadanie różnic płci w profilach myślenia strategicznego z zastosowaniem 5-wymiarowej skali z uwzględnieniem następujących wymiarów: podejście do zmiany, podejście do otoczenia konkurencyjnego, sposób przetwarzania informacji i podejmowania decyzji, poziom partycypacji, poziom elastyczności.

Metodyka: Zastosowane podejście ilościowe (badanie ankietowe techniką CAWI; metoda analizy danych: PROFIT (*Property Fitting*)).

Wyniki: Wyniki badań wskazują na zróżnicowanie profili myślenia strategicznego pod względem płci: kobiety są bardziej eksploracyjne, relacyjne i intuicyjne, a mężczyźni bardziej analityczni, konkurujący

i preferujący podejście emergentne. Kobiety, w przeciwieństwie do mężczyzn, preferują styl indywidualistyczny przy formułowaniu strategii oraz styl kolektywny na etapie wdrożeniowym.

Implikacje i rekomendacje: Wyniki badań ukazują, iż zróżnicowanie płci w zespołach zarządzających poszerza perspektywę strategiczną i zwiększa organizacyjną rezyliencję w warunkach złożoności otoczenia. Rekomenduje się poszerzenie badań o kontekst kulturowy oraz zastosowanie analizy PROFIT w celu zidentyfikowania innych różnic w profilach myślenia strategicznego.

Oryginalność/wartość: Wyniki badań wskazują, iż zróżnicowanie płci stanowi istotny czynnik w kształtowaniu zespołów zarządzających. Istotnym wkładem jest również wypełnienie luki metodycznej w badaniu nad zróżnicowaniem profili myślenia strategicznego poprzez zastosowanie analizy PROFIT.

Słowa kluczowe: myślenie strategiczne, analiza PROFIT (Property Fitting), różnice płci