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**PREGLEDNI NAUČNI RAD / OVERVIEW SCIENTIFIC PAPER**

# STRATEGIC PLANNING FOR MICRO-COMPANIES IN NETHERLANDS – USE OF AI-BASED TECHNOLOGY

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***Abstract:*** *This paper examines how Artificial Intelligence (AI) can enhance strategic planning for micro-enterprises operating in an uncertain business environment, with a special emphasis on the Netherlands. Micro-enterprises often lack the time, financial resources, strategic knowledge or motivation to conduct formalized strategic planning. Existing strategic frameworks are often too complex or abstract for microenterprises, especially owner-managed enterprises (OMEs), whose primary objectives may be survival, autonomy or social value rather than growth. The research draws on the concept of bounded rationality to argue that micro-entrepreneurs make decisions under strong cognitive and informational constraints. It proposes that AI, when used as a cognitive enabler rather than a decision-maker, can help overcome these limitations by providing structure, clarity, and analytical support.*

*Using design science research (DSR) and action research methods, the research develops and tests a customized twelve-step strategic planning process embedded in an AI-powered digital tool. The tool was developed iteratively and evaluated with microenterprise managers through surveys and prototype testing on a low-code platform.*

*The results show that participants recognize the value of structured planning when presented in a practical, non-intimidating format enabled by AI. The tool significantly increased users' confidence improved strategic planning skills, and their ability to formulate long-term goals. Features of explainable AI (XAI), such as the tool's ability to reason recommendations based on market data and user input, played a critical role in building confidence and enabling learning. The study shows that strategic planning for microenterprises can be democratized through intuitive, adaptive and explainable AI-driven tools. The paper offers recommendations for future research to investigate the long-term implications and ethical considerations of AI-enabled strategic decision-making.*

***Keywords:*** *strategy, decision making, AI, SME*

***JEL classification:*** *L19, M13, M19*

## INTRODUCTION

The importance of small and medium-sized enterprises (SME) in the Dutch business economy is widely acknowledged (Comité voor Ondernemerschap, 2022). They represent 99% of all companies, employ 70% of the workforce, and contribute 62% to the country's GDP. Micro-companies (those with fewer than 10 employees), as part of all SMEs, contribute 30% to the Netherlands' GDP, with 1.5 million companies employing over 50% of the workforce (CBS, 2024).

However, when the present-day business environment is assessed, it can be concluded that the variables are more unpredictable than ever (Milewska, 2022). Strategic planning (SP) is an effective and helpful tool for navigating the uncertain business environment (Ahmad, 2024). Numerous papers and books have been written discussing the significance of strategic management, with a particular focus on strategic planning within SMEs (Chaudhry, Ali, & Fakher, 2014). Kraus et al. (2006) found that these studies have demonstrated a positive correlation between formal strategic planning and business performance. Many SMEs frequently conduct their business without any formal SP or SP processes, primarily due to a lack of knowledge, skills, and resources (Cordeiro, 2013; Straková & Talíř, 2020), and this often results in comparatively lower performance compared to peer companies that have adopted a formalized strategic planning process. Recent research shows that AI can serve as an assistant or enabler instead of a replacement for strategists, enhancing their ability to analyze external and internal factors and support strategic decision-making processes related to external threats, opportunities, internal strengths, weaknesses, and other strategic considerations (Borges, Laurindo, Spinola, Gonçalves, & Mattos, 2021; Finkenstadt, Eapen, Sotiriadis, & Guinto, 2024; Kedding, 2021). They demonstrate that AI offers a range of appealing functionalities for strategists to employ in managing and coordinating strategic processes.

The primary objective of this paper is to examine the potential of a tailored strategic planning model and an AI-enabled tool designed explicitly for micro-businesses. This model aims to strengthen their operational framework, establish a foundation for long-term objectives, and enhance their preparedness for an unpredictable business environment, thereby increasing their sustainability prospects and supporting them in achieving their objectives. The first part of the paper will present strategic planning and discuss the possible role of AI in the strategic planning process. The second part of the paper will test the proposed AI model in strategic planning. In the final section of the paper, a conclusion and proposals for future research will be presented.

## LITERATURE REVIEW

### Micro, Small, and Medium Enterprises: Businesses and Strategic Planning

More than 40 empirical studies conducted in the 1970s have not produced conclusive results regarding the positive effect of SP on small business performance (Gibcus & Kemp, 2003). Robinson Jr. and Pearce (1984) also describe four reasons given by owner-manager entrepreneurs (OMEs) for not using SP: (1) lack of time, (2) minimal knowledge of the planning process, (3) lack of specialized expertise about the planning process, and (4) lack of push towards employees and external consultants. Straková and Talíř (2020) pointed out the lack of SP in SMEs, emphasizing the lack of awareness and knowledge about SP, calling it a lack of "managerial literacy".

The research conducted by Kraus et al. (2006) aimed to examine the performance implications of SP within smaller enterprises. They found that the formalization of SP had a significantly positive impact on growth performance. However, they did not find evidence supporting the contribution of other aspects of SP, such as time horizon, strategic instruments, and control, to overall performance. Authors underscored that small enterprises differ fundamentally from large ones, emphasizing that concepts developed for larger firms may not necessarily apply to small and micro businesses. Consequently, they advocate for the emergence of specially tailored SP concepts for smaller firms. Subsequently, in their later research, Kraus et al. (2008) revealed that 79% of the studies identified a positive correlation between SP and success, while 21% found no or mixed correlation.

George et al. (2019) reaffirm that strategic planning has a significant impact on organizational performance, spanning both the private and public sectors and transcending national boundaries. They advocate for integrating SP into contemporary managerial practices, emphasizing the pivotal role of formalization in driving organizational progress. However, despite the consensus on the benefits of strategic planning, specific nuances remain unexplored. Suklev and Debarliev (2012) stress the comprehensive and formalized nature of strategic planning processes, highlighting management involvement and the utilization of illuminates the multifaceted nature of strategic planning, emphasizing its relevance across organizational spectrums and the imperative of formalization in maximizing its impact. Addressing this gap, Gutterman (2023) and Maříková et al. (2022) note a lack of research on the strategic planning dynamics within smaller enterprises, highlighting its relevance across all business dimensions. They underscore the indispensable nature of strategic planning in navigating the ever-evolving business landscape, countering prevalent misconceptions that relegate it solely to the domain of larger corporations.

Wang et al. (2007) identified barriers to SP in SMEs, resulting in a lack of or low levels of SP in most of the SMEs. Among others, these include a lack of time, a lack of expertise, inadequate knowledge of the planning process, the type of industry, the size of the business, and internal implementation barriers. They also highlight another important issue: the motivation of owners. The authors assume that many OMEs do not want to grow but pursue non-economic goals, such as autonomy and personal satisfaction, and "buy" employment. Another obstacle pointed out by Stefanovska and Soluncevski (2015) is that, despite the desire of OMEs and other stakeholders to be involved in the formalization of strategic planning, their contribution to this process is minimal due to the distraction of day-to-day business activities.

However, for micro firms, several researchers conclude that formal planning mechanisms are often lacking due to a lack of resources, such as time, capital, skills, and knowledge (Cordeiro, 2013; Straková & Talíř, 2020; Málovics & Kraus, 2007; Wang, Walker, & Redmond, 2007). Charles et al. (2015) recognized additional factors such as organizational structure, leadership style, market conditions, competition, and environmental influences that play significant roles in determining the strategic management approach adopted by small businesses.

### Which Strategic Processes Are Beneficial to Micro Businesses?

From the '60s onward, there has been a trend of viewing strategy use in organizations differently (Hamel & Prahalad, 1996; Mintzberg, Ahlstrand, & Lampel, 1998; Johnson, Scholes, & Whittington, 2009). Depending on profit-maximizing or other objectives, the importance of strategy is a dynamic mix of planned and unplanned elements.

Hunger and Wheelen (2020) state that strategic management encompasses the managerial decisions and actions that shape a corporation's long-term performance. It involves processes such as environmental scanning (both internal and external), strategy formulation, strategy implementation, and the evaluation and control of outcomes (Figure 1).

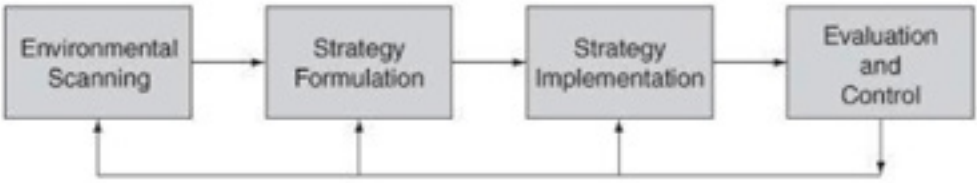



**Figure 1.** Basic elements of the Strategic Planning process

Source: Hunger and Wheelen (2020, p. 3)

Johnson et al. (2009) argue that the SP process does not follow a linear sequence because its components are interlinked and provide feedback to one another. These models primarily address the operational frameworks of large corporations, featuring numerous case studies on prominent enterprises, and can be adapted for SMEs and micro-businesses (Alade & Ehigbochie, 2019). The comparability of this methodology between non-profit and for-profit enterprises highlights its adaptability. However, it requires tailored adjustments for each sector to suit their unique context and objectives (Hill & Jones, 2009).

To better understand the concept of strategic process and planning tools, Stenfors et al. (2007) refer to these tools as "decision aids that are used methodically for specific purposes in decision-making or planning activities." Pasanen (2011) emphasizes that the goal is to offer companies significant improvements and benefits. Like the studies by Aldehayyat and Anchor (2008), Stenfors et al. (2007) and Straková and Talíř (2020), Pasanen (2011) also observes that the use of tools is more extensive in larger companies than in smaller ones. Williams Jr. et al. (2018) emphasize the central role of planning instruments. Authors advocate the use of a combination of instruments, citing better results compared to the isolated use of a single instrument. He also pointed out the risk of "paralysis by analysis" among small business managers due to their limited training, skills and experience with strategic planning tools. Small businesses focused on growth emphasize their relationships with funders and may consider SWOT analysis a fundamental tool (Johnson, Scholes, & Wittington, 2008). To determine which strategic management tools and techniques are appropriate for SMEs, it can be concluded that there is a lack of available research on this subject (Pasanen, 2011; Qehaja & Kutllovci, 2020).

Pasanen (2011) selected fifteen strategic management tools and techniques for his study. He researched the topic and concluded that eight tools ranked above average in both usage and satisfaction: Mission & Vision Statements, Strategic Alliances, Business Strategies, Quality Systems, Outsourcing, Growth Strategies, Customer Satisfaction Measures, and SWOT Analysis. The most popular tools also received high satisfaction ratings. Five others, including the Balanced Scorecard, Benchmarking, and Scenario Planning, recorded low usage and low satisfaction ratings. Mission & Vision Statements, as well as Business Strategies, were utilized by 75% of the respondents. As the definitions of the various strategic management tools are not elaborated, and some are missing (e.g., PESTEL, BCG-matrix), it is not easy to assess this outcome other than to call for future research on the topic, as other scholars stated before (Aldehayyat & Anchor, 2008; Clark, 1997).

### Strategic planning and the development of AI

Research in the intersection of entrepreneurship and AI is relatively scarce, with limited scholarly attention given to this area. However, in recent years, papers by Borges et al. (2021), Kedding (2021), and Acuña et al. (2025) have shown interest in integrating strategic planning and AI. Finkenstadt et al. (2024) highlight the potential of AI tools such as ChatGPT and Claude in enhancing organizations' scenario planning capabilities, particularly benefiting resource-constrained small companies. Miller (2023) underscores AI's role in strategic management, emphasizing its capacity to provide insights, identify growth opportunities, and optimize decision-making processes. The author further emphasizes the need for further research to harness AI's potential in strategic management applications fully. Similarly, Manuel et al. (2023) emphasize the potential of AI to enhance decision-making and confer competitive advantages in strategic planning tools. Minasyan (2024) and Patil et al. (2024) showcase the feasibility of using AI in business planning. As businesses integrate these advanced technologies, emerging applications such as AI-driven strategic planning and autonomous decision-making underscore the critical role of generative AI in enhancing organizational resilience and catalyzing innovation. Parsons (2023) addresses both the benefits and limitations of AI, acknowledging its ability to free up resources and noting potential drawbacks such as a lack of human ingenuity. Sayyadi and Collina (2024) argue that AI-powered business strategies, leveraging data analysis and digital technology, have significant potential to meet the evolving needs of modern businesses, including applications in scenario planning. Von Krogh and Shrestha (2021) further elaborate on AI's penetration into various areas of strategic analysis, including external factors such as PESTEL analysis and competitor analysis. The advantage of automated (AI) competitor analysis over traditional (manual and discrete) approaches is significant, as algorithms can continuously perform competitor analysis and adapt to dynamic market conditions, optimize resources, and achieve long-term business goals (Yilmaz & Demir, 2023). Von Krogh and Shrestha (2021) emphasize that AI should be viewed as an assistant rather than a replacement for strategists, augmenting their capacity to assess external and internal factors and facilitate strategic decision-making processes concerning external threats and opportunities, internal strengths and weaknesses, and other strategic issues. They also argue that AI presents numerous appealing functionalities for strategists to utilize in conducting and coordinating strategic processes.

Strategy scholars must continue investigating how these technologies can support the analysis, formulation, and implementation of strategies. Chowdhury (2024) concludes that the adoption of AI in business marks a new era of innovation and efficiency. By leveraging AI technologies to address the complexities of today's business environment, organizations can achieve transformative benefits, including enhanced decision-making, improved customer experiences, and streamlined operations. His conclusion is shown in the case study of Narne et al. (2024) at a Fortune 500 retail organization. The adoption of AI-driven decision support systems has led to notable improvements in strategic analysis, including a 50% reduction in planning cycles and a 558% increase in scenario modeling. Financial performance demonstrated significant gains, with a 23% increase in revenue and a 136% rise in profits following implementation. Narne et al. (2024) found in their research that user feedback highlighted that 79% experienced enhanced strategic foresight, and 83% reported increased confidence in their decision-making processes. Transparency and explainability remained challenges, as advanced machine learning models often lacked intuitive clarity. Successful implementation relied on participatory design, thorough testing, and training, emphasizing the importance of human oversight and collaborative integration with AI tools. According to Usman et al. (2024), the integration of AI strategies presents significant opportunities and intricate challenges in the dynamic realm of entrepreneurship. Effective AI deployment necessitates a balanced approach that considers both technological advancements and critical ethical dimensions, such as data privacy and algorithmic fairness. Entrepreneurs must adopt a comprehensive strategy emphasizing transparency, responsible governance, and adherence to evolving ethical standards to ensure sustainable and inclusive success in the AI-driven business. Acuña et al. (2025) confirm in their computational research that AI techniques enhance strategic planning by addressing information uncertainty more effectively and efficiently. The central insight derived from the literature on AI and Strategic Planning highlights the critical need for more extensive and rigorous research to explore the potential of AI-enabled strategic planning methodologies across a diverse range of organizational contexts, including large enterprises, small and medium-sized enterprises (SMEs), and micro-businesses such as startups. Jorzik et al. (2023) emphasize the need to bridge the existing gap between theoretical advancements and their practical application in this domain.

## METHODOLOGY

The paper employs a mixed-methodology approach that combines Action Research and Design Science Research (DSR). Action Research is especially appropriate because it emphasizes the actions or cycles of action that members of an organization or community have undertaken, are currently undertaking, or plan to pursue to address a specific problematic situation (Herr & Anderson, 2014). DSR, also known as design-oriented research, was employed to iteratively develop a generative AI tool that incorporates feedback from the real-world environment.

DSR aims to provide practical solutions to specific challenges and develop generalizable knowledge that strengthens the evidence base. This makes it a valuable approach for professionals in various disciplines, such as information systems, management and engineering, who can apply this knowledge when designing solutions to similar problems (Mulder, 2012). The chosen AI model, also known as a large language

model (LLM), is ChatGPT-4, which is widely available on the OpenAI platform. It is integrated with application programming interfaces (APIs) and extended by Microsoft tools like Word and Excel.

An exploratory survey was conducted to validate the literature review's findings, gather data, and provide insights into the strategic planning needs and challenges faced by participants, including limited resources such as time, capital, skills, and knowledge. The survey includes 22 questions, incorporating both open-ended and multiple-choice formats. It employs a 5-point Likert scale for measuring participant perceptions, with the following response options: 1 = Poor, 2 = Unsatisfactory, 3 = Good, 4 = Very Good, and 5 = Excellent. This scale evaluates attitudes towards strategic planning processes, the usability of tools, and overall satisfaction with AI-enabled outputs.

This paper focuses on micro-companies in the Netherlands, specifically those with a single owner-manager and a maximum of ten employees. Participants were recruited through the Prolific online research platform. Of the 100 potential participants invited to complete the survey, 60 provided valid responses. A purposive sampling strategy was employed, deliberately selecting OMEs who could offer diverse and insightful perspectives based on predetermined criteria, including geographical location, company size, and language.

In addition to the survey data, the objectives derived from each action research cycle were utilized to enhance the AI tool. This procedure entails ongoing learning and adaptation, consistent with the principles of design science and action research. This collaborative methodology facilitates the real-time evaluation of the AI's impact and the execution of iterative enhancements. Such collaboration ensured that the tool remained practical and effectively addressed real-world challenges.

The survey data were analyzed using thematic analysis (TA) with a deductive approach. TA offers a structured method for examining qualitative data, allowing researchers to apply pre-existing theories while maintaining theoretical consistency. At the same time, openness to unexpected insights is essential for minimizing bias and enhancing the analysis (Braun & Clarke, 2006). To ensure analytical rigor, the method includes a two-stage review in which themes are assessed against the coded extracts and the entire dataset (Clarke & Braun, 2017; Pearse, 2019).

A deductive codebook was created to guide the thematic analysis of open-ended survey responses. The initial coding framework was shaped by existing literature on strategic planning in MSMEs and SMEs; however, the analysis process allowed for ongoing refinement and the development of nuanced sub-themes. It included categories such as time constraints, financial limitations, lack of strategic skills, and limited knowledge of the strategic planning process (Table 1).

**Table 1.** Excerpt of the codebook

| Code Name | Strategic Intent – Mission, Vision, Goals |
|---|---|
| **Theme** | Mission, Vision, and Goals |
| **Definition** | Expressions of clear purpose, long-term vision, or specific goals, whether formally documented or not. |
| **Indicators / Keywords** | We have a "mission and vision", "long-term objectives," "short-term goals," "increase sales," and "start distribution". |

| | |
|---|---|
| **Theoretical Link** | Informal strategic planning and entrepreneurial orientation in micro firms (Málovics & Kraus, 2007) |
| **Example Quotes** | "We have a mission and vision for our company." "This year, we want to increase sales up to 20% and start offering distribution." |
| **Notes / Considerations** | Intent may be informal, intuitive, or undocumented, but it is still strategic. |

Source: authors, 2025

The research process has several limitations. As with many qualitative studies, the sample of this research may not fully represent the diversity of perspectives from different demographic groups, as it is limited to Dutch companies, organizational sizes, or industries. This limitation could impact the transferability of the findings, as the insights gained from the selected participants may not reflect broader contexts. This paper relies on self-reported data collected through surveys, questionnaires or interviews. Participants may provide misleading or inaccurate information due to recall problems, social desirability or misinterpretation. This paper may be subject to certain limitations regarding the use of AI tools to assess the feasibility of formal strategic planning. These limitations are manifold and may include concerns about data quality, inherent algorithmic biases, the potential for misinterpreting AI-generated results, and challenges related to effectively integrating such tools into existing strategic planning processes.

## RESULTS AND DISCUSSIONS

For a better understanding of the demographic properties of the population, the relevant demographic data are highlighted in Table 2.

**Table 2.** Respondents' demographics

| Educational level | Frequency | Percentage |
|---|---|---|
| Secondary vocational | 11 | 18% |
| Bachelor | 23 | 39% |
| Master | 26 | 43% |
| Distribution of respondents across business sectors | | |
| ICT | 8 | 13% |
| Retail | 6 | 10% |
| Healthcare | 5 | 8% |
| Finance | 5 | 8% |
| Education | 5 | 8% |
| Multimedia | 4 | 7% |
| Entertainment | 4 | 7% |
| E-commerce | 3 | 5% |
| Cultural | 3 | 5% |
| Service | 2 | 3% |
| Real estate | 2 | 3% |
| Human resources management | 2 | 3% |

| | | |
|---|---|---|
| Coaching | 2 | 3% |
| Research | 1 | 2% |
| Public services | 1 | 2% |
| Music | 1 | 2% |
| Marketing | 1 | 2% |
| Manufacturing | 1 | 2% |
| Journalism | 1 | 2% |
| Hotel and catering | 1 | 2% |
| Consulting | 1 | 2% |
| Building | 1 | 2% |
| Number of employees | | |
| 1 | 27 | 45% |
| 2-3 | 25 | 42% |
| 4-6 | 5 | 8% |
| 7-10 | 3 | 5% |

Source: authors, 2025

Table 2 illustrates the level of education, revealing that the majority (82%) of the respondents hold a bachelor's or master's degree. This observation also aligns with the findings of Gibcus et al. (2009), who noted that 20% of OMEs have an educational level below that of a bachelor's degree.

For some respondents, the mission stems from personal values or a sense of community commitment. Many express a clear sense of strategic intentions, supported by well-defined missions (84%), vision (15%), and goals (79%) that guide their business operations. They often express their missions in personal and value-oriented terms, emphasizing the significance of purpose and service. These insights suggest that micro-firms often operate with strategic intentions, even if they do not adhere to a formal planning framework (Mazzarol, Reboud, & Soutar, 2009).

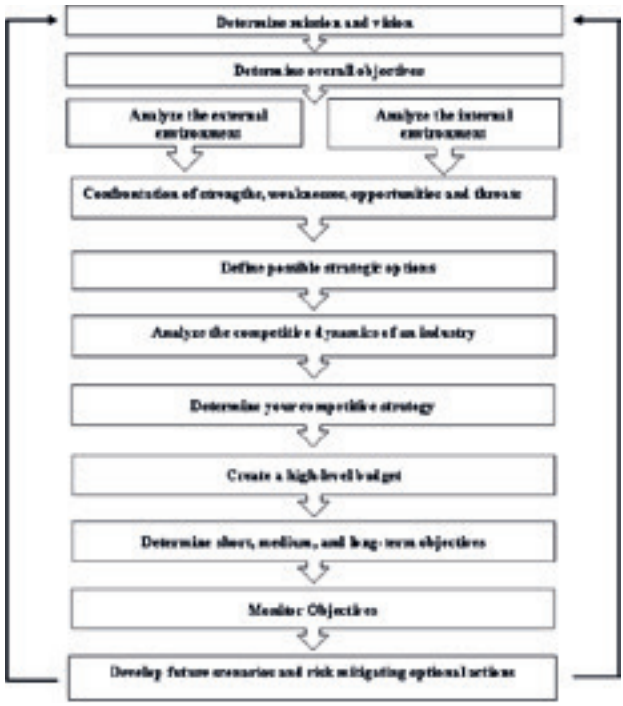
Despite the operational challenges reported by many micro-business owners, most respondents (66%) acknowledged the value and importance of SP. Although SP was often not formally implemented, it was frequently described as a desirable, even essential, activity, particularly for growth, stability, and long-term decision-making. The findings suggest that micro-firms do not reject strategic planning but often defer it. This supports prior literature indicating that micro-business owners are strategically aware but may lack the structure or resources to formalize planning processes (Sandada, Pooe, & Dhurup, 2014; Damke Junior, Gimenez, & Damke, 2018).

Micro-enterprises engaged in some form of strategic planning widely use formal tools and models. Most participants preferred straightforward, practical frameworks over complex strategic models. These models include PESTEL analysis, SWOT, the 5-Forces model, Ansoff matrix, and BCG matrix, among others. One or more participants apply at least one of the strategic planning tools mentioned in the survey. Their choices were influenced by usability, familiarity, and relevance to the immediate business context. A SWOT analysis was reported as the most used tool by 47%

of business owners. Overall, the data suggests that while 92% of respondents widely adopt strategic planning tools, micro-firms utilize lightweight, customized versions of these methods to address their immediate needs. Their approach is pragmatic, flexible, and often driven by personal experience rather than formal education. This aligns with existing research (Pasanen, 2011; Stonehouse & Pemberton, 2002), which indicates that micro-firms favor accessible, low-complexity tools that can be easily integrated into daily operations without requiring significant resources. Respondents illustrated not only the significant limitations faced by micro-enterprises but also how these constraints are directly associated with firm size and owner dependency, emphasizing the importance of resource-based limitations in the strategic capacity of small firms. This confirmed previous research results (Cordeiro, 2013; Straková & Talíř, 2020).

The strategic planning process, for the research, was broken down into twelve manageable steps, making it easy to follow and understand (Figure 2). The purpose is to develop a comprehensive strategic plan specifically for micro-companies. This approach aligns with the constraints related to a lack of knowledge or skills concerning strategic planning.

**Figure 2.** Adapted Strategic Planning Process




Source: authors, 2025

To answer the research question, "How can AI help microenterprises to develop customized strategic planning processes and strategies?" it was essential to create an LLM input framework based on the twelve phases of the SP process. The LLM framework developed in FlutterFlow (2025) was chosen to facilitate the generation of multiple iterative actions by participants based on the results of each cycle. These

actions require minimal time and resources, allowing for efficient and cost-effective model improvement.

The company-specific information was organized into an input document and uploaded to the LLM, initiating an iterative process in which the formal SP is incrementally refined after each revision of the input document. (Figure 3)

**Figure 3.** LLM strategic planning process


Source: authors, 2025

Eight weeks were spent evaluating the FlutterFlow application for strategic planning, specifically examining how AI enables it. The iterative process included five test cycles. Fifteen OMEs operating in various business areas, including ICT, retail, services, and finance, as well as non-profit and non-growth OMEs, participated in these cycles and provided real-life business descriptions. After each iterative cycle, participants provided quantitative feedback using a 5-point Likert scale via a feedback section that included both quantitative and qualitative aspects. The participants assessed the quality of the application output during the iteration process.

Responses were subjected to thematic analysis to identify common challenges faced by participants in the sample. The most frequently mentioned issues included

the use of a wide range of planning tools, difficulties in distinguishing between strategic and operational planning, and cognitive overload due to excessive AI-generated content. The prototype was revised after each test cycle. This included fine-tuning the prompts, adding concise explanations for each step in the process and each strategic planning tool used, summarizing the results, and reorganizing the planning steps to improve the logical flow. Participants were encouraged to enter additional information and details into the input form (Table 3) that they had previously submitted in the application before starting a new cycle.

**Table 3.** Input form

| Questions | Connecting the Strategic tool |
|---|---|
| What kind of company are you? | Mission statement |
| What is your company's ideal future state? | Vision statement |
| What goals do you have? | Goal setting |
| Where are you located? | PESTEL analysis |
| What is your organization doing well right now? What sets you apart from your competitors? What is your greatest strength? What is your organization not doing well? | SWOT Analysis (Strengths) |
| What are you currently lacking (a product, resource, or process)? What are your competitors doing better than you? What limitations, if any, are holding your organization back? What processes or products need improvement? | SWOT Analysis (Weaknesses) |
| What opportunities does your organization have?<br>How can you leverage your unique strengths as a company? Are there trends that you can take advantage of? Is there a growing demand for your product or service? | SWOT Analysis (Opportunities) |
| What emerging competitors should you watch?<br>Are there weaknesses that expose your organization to risk? | SWOT Analysis (Threats) |
| How is your annual budget allocated across key areas? | Mid-term Budget setting |

Source: authors, 2025

This allowed LLM to further elaborate on this extended information. Usability ratings monitored during the iterations showed an upward trend in user satisfaction and understanding after each prompt change. In the final test cycle, all participants gave positive feedback on the formal SP generated by the test application. 53% rated it as "good" (3 on the 5-point scale) and 47% as "very good" (4 on the scale). Significantly, no participant selected "Unsatisfactory" or "Poor." The combination of improved usability ratings and encouraging qualitative feedback confirms the successful completion of the iterative refinement process. Some participants suggested changing the test application from generating a formal Strategic Plan to developing a Business Plan. This distinction is likely blurred in small firms, particularly micro-companies, as owners may focus on short-term operational or financial issues and conflate strategic planning with writing a business or marketing plan. Stefanovska and Soluncevski (2015) already described this phenomenon.

The need for scaffolding strategic literacy becomes more pronounced when users have had limited exposure to formal strategic processes in the past. Design ele-

ments that support users' strategic understanding, such as an explanatory introduction to a strategic plan and an explanation of how it is constructed with building blocks (SP tools), mitigate the adverse effects of bounded rationality on engagement. To address this issue, a concise, AI-generated explanation or XAI of the purpose and structure of a formal strategic plan, as well as the function of the strategic planning tools used, was integrated into the tool, following the recommendations of Shick et al. (2024). Subsequently, this AI-generated explanation was incorporated into the formal strategic plan developed by the application. This intervention narrowed the knowledge gap related to strategic planning, leading to enhanced user comprehension and increased engagement in the strategic planning process.

The iteration process ceased when all participants provided positive usability feedback for the presented formal SP or their respective companies from the test application, with a rating of at least "Good" on a 5-point Likert scale. An analysis of the usability ratings revealed that 100% of participants assessed the AI-enabled strategic planning tool positively, with 80% assigning a 'Good' or higher rating. The absence of negative evaluations highlights the tool's acceptability among micro-entrepreneurs with varying educational backgrounds. Feedback from participants regarding the FlutterFlow application suggests that the input form, combined with the 12-step process and AI-enabled SP, facilitates a user-friendly SP that allows for rapid edits and seamless integration of new data, without resource constraints.

## CONCLUSION

This paper examined how micro-enterprises, particularly those operating in resource-constrained environments, can use artificial intelligence to conduct effective strategic planning. Considering the well-documented barriers that prevent micro-entrepreneurs from utilizing formal strategic planning methods, such as limited time, capital, and strategic knowledge, the research aimed to develop, test, and evaluate an AI-powered planning framework specifically tailored to this business context.

Using a qualitative methodology supported by a Design Science Research (DSR) approach, a twelve-step strategic planning process was developed and iteratively refined. The process was operationalized in an AI-supported prototype and tested with a targeted sample of micro-entrepreneurs in the Netherlands. The research shows that strategic planning can be more accessible and impactful for micro-companies by thoughtfully integrating AI-enabled tools. By customizing the strategic planning process to align with the specific characteristics and limitations of micro-enterprises and utilizing AI as a cognitive partner, rather than merely a direct force, the research presents a strong argument for innovation in entrepreneurial support systems. The twelve-step planning model, backed by an AI-driven prototype, not only overcomes typical obstacles to strategic engagement but also enables users to think more clearly, plan more effectively, and act more purposefully.

The results showed that the tool significantly reduced cognitive load, improved user engagement and supported the formation of structured strategic insights, even among participants with no prior strategic planning experience. The results also suggest that AI served as cognitive support rather than a substitute for decision-making and helped overcome important limitations related to bounded rationality. Overall, the

results confirm the potential of AI-assisted planning to democratize access to strategic management practices for micro-enterprises.

This work provides a foundational understanding of AI-enabled strategic planning in micro-enterprises and highlights several opportunities for further research. First, it is essential to conduct longitudinal studies to evaluate the long-term effects of AI-enabled planning on key business outcomes, including resilience, adaptability, and performance. These studies can provide valuable insights into whether the initial use of AI tools promotes ongoing strategic behavior. Second, conducting comparative research across different cultural and economic settings can clarify the extent to which the findings are applicable and the specific adaptations needed in different contexts. Third, linking models of practical thinking to formal planning frameworks could enhance our understanding of hybrid decision-making among entrepreneurs. Since many micro-enterprises operate in an exploratory and satisficing manner, future tools could combine predictive and adaptive capabilities in a single planning platform.

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