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Article

Exploring internal factors of capacity expansion decision-making in Hungarian family businesses in food industry: Introducing a novel model

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Abstract: The purpose of the research on which this paper is based was to test and validate the decision-making model previously set up by the authors. The model presents the internal factors influencing the decisions of family businesses regarding capacity expansion and the possible decision outcomes. The distinctiveness of the model is that it presents the internal factors affecting decisions related to capacity expansion, thereby helping family businesses to make decisions. For collecting data, both qualitative and quantitative techniques were used. As qualitative data collection techniques, in-depth interviews and focus group interviews were conducted. As quantitative method, an online questionnaire was used, whose questions were compiled based on previous research of the authors. The questions indirectly assess the internal factors influencing capacity expansion decisions of family businesses and the possible outcome of the decisions. The questionnaire was sent to the VOSZ (National Association of Entrepreneurs), MAPI (Hungarians on the Market Club) and the Association of Family Entrepreneurs, which means approximately 500 addresses. After data cleaning, 135 completed questionnaire were analyzed with SPSS software. In-depth interview was conducted with the heads of five family businesses, whose results were analyzed using tagging and artificial intelligence. The model previously set up by the authors was validated by both qualitative and quantitative research. It can be concluded that the following three internal factors influence the decision of family businesses regarding capacity expansion: socio-emotional wealth, cooperation between generations, and heterogeneous top management team. The family businesses themselves are not necessarily aware of this, so the model enriches the scientific literature and helps in the conscious operation of family businesses.

Keywords: decision on capacity expansion; family businesses; influencing factors; model testing; SME

1. Introduction

Family businesses play an important role in the economy. 70% of the small and medium-sized enterprises (SME) in the European Union are family businesses, their operation, development and decisions have massive impact on GDP, business, employment and society (Van et al., 2017). Family businesses face significant challenges in capacity expansion due to their need to balance emotional family interests, legacy preservation, and the integration of external managerial expertise, while maintaining long-term business sustainability and adapting to market demands, which is crucial for their competitive growth and intergenerational success. The capacity expansion of family businesses in the food industry can be induced by digital transformation, internationalization, development, and sustainability (Herrero, 2017).

The purpose of this article is to validate the model previously established by the authors (Nemes and Konczos-Szombathelyi, 2023). For this purpose, qualitative and quantitative tools were used: in-depth interviews were conducted and analyzed with the help of artificial intelligence; and online questionnaire was applied and analyzed by SPSS software. The hypothesis was that the decisions of family businesses are influenced by special internal factors. During the literature review, the authors came to the conclusion that there is currently no specific decision-making model available for family businesses regarding capacity expansion, which is what makes the model new. The research question is the following: What internal factors influence decision-making regarding capacity expansion of SME family businesses? The relevant literature of the past few years has been processed in the paper. With the help of the literature, the basic terms related to the research were defined: family business, capacity expansion, decision-making concepts. The Hungarian food industry SME sector is presented in the literature section also. After that, the paper presents the results of the research, testing the decision-making model set up earlier by analyzing the results of both in-depth interviews and online questionnaire. Finally, the obtained results are summarized.

2. Materials and methods

The methodology of the research was developed based on the mind map in **Figure 1**.

Research design:

1) Establishing research problem
2) Literature review—definition for conceptual frameworks
3) Establishing research GAP
4) Data collection—qualitative and quantitative
5) Data analysis and model testing
6) Drawing conclusions

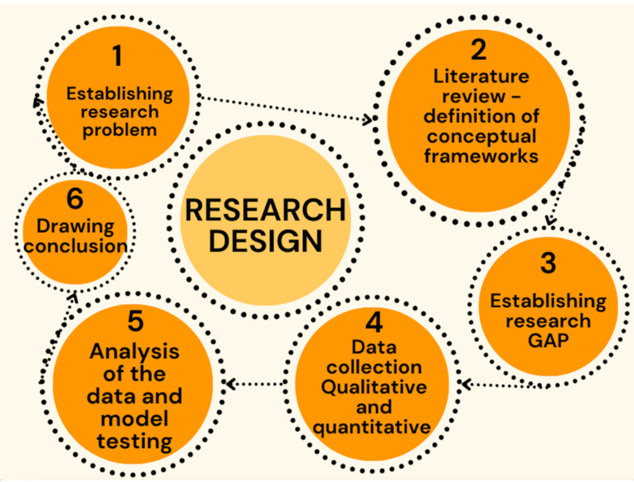

Figure 1. Research design—Mind map.

To establish the research problem, the authors relied on their previous research and their previous professional, scientific and economic knowledge. After that, they started a search in the Scopus Science Direct and Google Scholar scientific databases to find the current literature. They also used the publications of the Hungarian Central Statistical Office and the Ministry of National Economy to collect empirical data. The main goal in the processing of the literature was to clarify the basic concepts of the research, which are family business, small and medium-sized enterprises, capacity expansion, decision-making and the presentation of family businesses in the Hungarian food industry SME. Based on the literature review, it became possible to determine the research GAP. In the research, the authors tested the model they had set up earlier; for this purpose, data was collected from a sample of family businesses operating in the Hungarian food industry, using qualitative and quantitative methods.

In-depth interviews were conducted with five business leaders. The questions were the same as the authors' previous research questions during the Portuguese research (Nemes and Konczos-Szombathelyi, 2023). Artificial intelligence was used to analyze the collected data in the case of in-depth interviews, in such a way that the typed interviews were uploaded to the AI and the command was given to it to prepare a statement according to the internal factors influencing the decision found in the decision-making model.

An online questionnaire was sent to the MAPI (Hungarians on the Market), to the VOSZ (National Association of Entrepreneurs) and to the Association of Hungarian Family Businesses. More than 500 businesses received the questionnaire, and from the completed questionnaires, 135 of them could be used after data cleaning. The online questionnaires were analyzed with SPSS software. After that, the obtained results were compared with the decision-making model. After testing the model, conclusions were drawn.

3. Literature review

The current and relevant literature was processed in the literature review. The authors used scientific databases such as Science Direct, Scopus, Research Gate and Google Scholar. The publications of the Hungarian Central Statistical Office and the Hungarian National Economic Office were also used to present Hungarian family businesses. The papers were selected with a snowball effect. In the context of this study, the snowball method allows the researchers to identify gaps in existing knowledge by following citation trails that lead to related studies, uncovering both contradictions and missing areas within the current literature. As family businesses are unique in their structure and decision-making processes, many earlier works may have only partially addressed capacity expansion or focused on broader SME decision-making without delving into the specific internal dynamics (such as socio-emotional wealth and generational cooperation). By using this method, the authors can map out the existing research landscape, identify where prior studies have left questions unanswered, and situate their novel model in this space, making a significant contribution to the field. Thus, the snowball effect not only ensures the relevance and thoroughness of the literature review but also directly aids in pinpointing research gaps that this paper aims to fill, particularly by integrating internal family dynamics with business growth strategies. The purpose of the literature review, in addition to defining the conceptual framework, was to set up the research GAP. Based on the processed literature, the concept of family businesses was defined, a SME concept, Hungarian family businesses in the food industry in the SME sector, a concept of decision-making, a concept of capacity expansion. After that, the contracting parties collected the topic areas found in the literature in a comparative table and determined the research GAP.

3.1. Definition of family businesses

Family businesses are generally defined as business organizations owned and/or managed by a family or family group (Silva et al., 2021). Family members are often actively involved in the day-to-day running of the business, and ownership is usually passed down to the next generation within the family. Family businesses cover a wide spectrum, from small shops to large multinational companies.

3.1.1. Their economic role

Family businesses represent a significant economic force. More than 60% of businesses in the European Union are family businesses, which provide nearly 40% of jobs (Arnold et al., 2023). In the United States, family businesses make up about 80% of all business organizations and contribute nearly 50% of GDP. These statistics reflect the economic importance of family businesses and their contribution to job creation and economic growth (Kleve et al., 2020).

3.1.2. Their characteristics

Family businesses have special characteristics that distinguish them from other businesses (Vieira, 2017). One of the most important features is the long-term approach. As the business is passed down to the next generation, family businesses often follow long-term strategies aimed at ensuring sustainability and stability (Núñez-Cacho et al., 2018). These businesses are often based on strong family values, such as trust, commitment and cooperation (Biel and Ślusarczyk, 2022). The close ties between family members and the commitment to common goals strengthen the internal cohesion of the business (Hsueh et al., 2023). However, family dynamics can also complicate business decision-making, especially when personal conflicts arise.

Family businesses have many advantages. One of the most important advantages is the fast and flexible decision-making. Since decision-making is often done within the family, there are fewer bureaucratic obstacles, which enables a faster reaction to market changes. In addition, family businesses often operate with greater commitment and passion because the owners have a personal interest in the success of the business (Delgado-García et al., 2023).

Family businesses also face many challenges. One of the biggest challenges is managing the generational change (Howorth and Ali, 2001). Passing on the business to the next generation often causes problems, especially if there is no clear succession plan (Bürgel and Hiebl, 2024). Personal conflicts between family members and lack of leadership skills can also hinder the successful continuation of the business. In addition, family businesses often face difficulties in terms of financing. Because these businesses are often smaller and less transparent, they have a harder time getting external financing. The question of creditworthiness is particularly important, as family businesses often rely on their own capital (Civelek et al., 2021).

Family businesses play a significant and irreplaceable role in the global economy. Their characteristics and organizational culture create unique advantages and challenges that affect their operations and success. A long-term perspective, family values and commitment promote stability and sustainability, while generational change and financing difficulties pose serious challenges (Guedes et al., 2022). Examples of successful family businesses serve as inspiration for other entrepreneurs and highlight the economic and social importance of family businesses (Birdthistle and Hales, 2022b).

Looking to the future, family businesses must adapt to the rapidly changing economic and technological environment. Innovation, digitization and sustainability will be key factors in maintaining competitiveness (Yong and Acosta, 2024b). Family businesses must be able to integrate new technologies and business models without compromising family values and long-term commitment (Birdthistle and Hales, 2022d).

In summary, family businesses are a unique and valuable part of the global economy. Strong family ties, long-term planning and flexibility facilitate successful operations, while generational change and funding difficulties pose challenges. However, family businesses able to adapt and be innovate remain significant economic players, contributing to job creation and economic growth.

3.2. Definition of small and medium enterprises

The definition of SMEs may differ from country to country, but they are characterized based on generally accepted criteria (Almeida, 2021). According to the definition of the European Union (EU), small and medium-sized enterprises are enterprises with fewer than 250 employees and an annual turnover not exceeding EUR 50 million or a total balance sheet total not exceeding EUR 43 million (Jones and Li, 2017). In the United States, the definition of an SME varies by industry, but it generally includes businesses with fewer than 500 employees.

Medium-sized enterprises: they have 50–249 employees and an annual turnover of less than 50 million Euros. Micro-enterprises: they have fewer than 10 employees and an annual turnover of less than 2 million euros. Small businesses: they have 10–49 employees and an annual turnover of less than 10 million euros.

Table 1 shows the share of total enterprise revenue is another critical measure of the economic weight carried by SMEs in each region. In Central Hungary, SMEs account for a commanding 61.9% of total enterprise revenue, underlining their importance in the regional economy. Similarly, in Southern Transdanubia, SMEs contribute 61.8% of the total, despite the lower absolute revenue figures.

In contrast, regions like Central Transdanubia and Western Transdanubia report smaller shares of SME-generated revenue, at 41.8% and 49.6% respectively. These figures may indicate a stronger presence of large enterprises in these regions, which compete with SMEs for market share and resources. The reliance on SMEs in certain regions, such as Central Hungary, underscores their pivotal role in driving local economic activity and employment.

Table 1. Net sales of Hungarian SMEs in 2022.

Region	Revenue (million HUF)	Distribution, %	Previous year = 100.0 (at current prices)	Share of total enterprise revenue, %	Revenue per SME (million HUF)	of which: company
Central Hungary	25656186	57.5	101.3	61.9	97	127.6
Central Trans-danubia	3409207	7.6	102.3	41.8	53.8	97.3
Western Trans-danubia	3156803	7.1	101.6	49.6	50.1	95.7
Southern Trans-danubia	2207331	4.9	98.1	61.8	41.6	75.1
Northern Hungary	2494983	5.6	99.1	51.8	46.9	89.6
Northern Great Plain	3796914	8.5	102.2	57.7	52.7	101.9
Southern Great Plain	3912185	8.8	102.7	71.5	54.4	102.1
Total for the country	44633608	100	101.3	58.4	69.6	111.7

Source: Central Statistical Office.

3.2.1. Their economic role

SMEs form the backbone of the global economy. In the EU, SMEs account for more than 99% of all businesses and employ more than two-thirds of the private sector workforce (European Comission, 2023). In the United States, they play a similarly significant role, making up about 99.9% of all businesses and employing the majority of the workforce. SMEs contribute to economic growth, innovation, regional development and social stability (Bite and Konczos-Szombathelyi, 2020).

SMEs differ from large companies in several ways. One of their most important characteristics is their size. Due to the smaller number of employees and limited resources, SMEs can react more flexibly to market changes. The lower bureaucratic level enables quick decision-making and faster introduction of innovation (Kotlar et al., 2014).

Table 2. Highlights of Hungarian small and medium-sized enterprises, in 2022.

Region	Revenue per SME (thousand HUF)	Gross added value per SME (thousand HUF)	Investment per SME (thousand HUF)	Number of employees per SME (persons)
Central Hungary	97,041	16,023	2118	3.15
Central Transdanubia	53,770	10,295	2535	3
Western Transdanubia	50,142	10,855	2168	3.12
Southern Transdanubia	41,590	8237	2071	2.88
Northern Hungary	46,901	9108	2086	2.91
Northern Great Plain	52,674	9748	2245	3.11
Southern Great Plain	54,378	9730	2717	3.2
Total for the country	69,627	12,319	2263	3.09

Source: Central Statistical Office.

Table 2 shows considerable variation in the revenue per SME across different regions. Central Hungary leads with the highest revenue per SME at 97,041 thousand HUF, significantly outperforming other regions like Western Transdanubia (50,142 thousand HUF) and Southern Transdanubia (41,590 thousand HUF). This disparity underscores the importance of location and regional infrastructure in supporting SME growth. Regions with stronger economic bases and more developed infrastructure, such as Central Hungary, likely offer SMEs better access to markets, resources, and financial support. This concentration of economic activity in more developed regions can lead to regional imbalances, with more rural or less developed regions lagging in SME revenue generation.

The gross added value per SME is another critical indicator of the economic contribution of SMEs. Central Hungary again leads with 16,023 thousand HUF of added value, while other regions such as Northern Hungary and Southern Transdanubia lag behind, with added values of 9108 thousand HUF and 8237 thousand HUF respectively.

This indicator reflects the productivity of SMEs and their ability to contribute to regional GDP. Regions with higher gross added value are likely benefiting from more efficient SME operations, greater technological adoption, or stronger industrial sectors. For policy-makers, this suggests the need to promote SME productivity in underperforming regions through targeted investments in education, innovation, and infrastructure.

Investment per SME also varies by region, with Central Transdanubia standing out at 2535 thousand HUF, followed by Western Transdanubia at 2168 thousand HUF. Investments are critical for fostering SME growth, particularly in terms of upgrading technology, expanding production capabilities, and enhancing competitiveness.

Regions with higher investment rates are better positioned to sustain long-term growth and resilience. However, lower investment levels, such as those seen in Southern Transdanubia (2071 thousand HUF), might indicate barriers to accessing capital or lower investor confidence, which can stifle regional economic development.

Employment is a key measure of SMEs' socio-economic contribution. In terms of number of employees per SME, Central Hungary has a slightly higher average of 3.15 employees per SME, while other regions like Southern Transdanubia and Northern Hungary show lower averages of 2.88 and 2.91 respectively.

Although SMEs generally employ fewer workers per enterprise, their collective contribution to employment is substantial. For less developed regions, enhancing SME capacity to employ more workers could reduce regional unemployment rates and promote economic equity. SMEs, especially in rural areas, often serve as the backbone of local labor markets.

The data reveals stark differences between regions, with Central Hungary emerging as the dominant economic hub, both in terms of revenue and productivity per SME. However, the other regions show potential for growth, especially with increased investments and improved access to resources.

Regions like Central Transdanubia demonstrate higher levels of investment per SME, suggesting that SMEs in these regions are actively seeking to grow and innovate. These investments can lead to long-term benefits such as improved productivity and competitiveness, ultimately contributing to regional economic growth.

The data clearly illustrates that SMEs play an essential role in regional economies, contributing to revenue generation, employment, and gross added value. However, the disparities between regions highlight the need for tailored policy interventions to support SME growth in less developed areas. Investment in infrastructure, access to capital, and fostering innovation are critical to ensuring that SMEs across all regions can thrive and contribute meaningfully to the national economy.

By addressing these regional disparities and supporting SMEs across the country, policy-makers can ensure a more balanced and resilient economy, where SMEs not only drive local development but also contribute significantly to national economic goals.

3.2.2. Their characteristics

SMEs have many advantages that contribute to their success. One of their most important advantages is flexibility. Because they are smaller, they can adapt more quickly to market conditions and consumer needs. In addition, SMEs often have strong relationships with their customers and communities, which increases trust and loyalty.

The innovative capacity of SMEs is also outstanding. In many cases, the introduction of new products and services is faster and more efficient for smaller businesses, as they are less burdened by the bureaucratic obstacles what is typical of large companies. Innovation and creativity are key elements of the competitiveness of SMEs (Kathuria et al., 2023).

At the same time, SMEs face many challenges that can hinder their growth and operations. These include funding difficulties, regulatory burdens, competition and labor shortages.

One of the biggest challenges is financing. Due to their smaller size and shorter operating time, SMEs often find it more difficult to access the necessary financial resources, the external capital. Banks and other financial institutions often less willing to lend to smaller businesses because they consider SMEs to be riskier, which can result in higher loan rates and stricter terms (Csiba-Herczeg et. al., 2023). In addition, SMEs have less access to capital markets, making it more difficult to finance growth.

The regulatory environment for SMEs is often complex and costly. Changes in the regulatory environment also pose challenges for SMEs. Administrative burdens, tax requirements and other legal obligations require a significant investment of time and money, which can be particularly burdensome for smaller businesses.

In addition, SMEs often face increased, strong market competition. Globalization and the spread of digital technologies, the rapid technological changes create new challenges and opportunities, but it is often more difficult for smaller businesses to compete with large multinational companies (Putritamara et al., 2023). Due to their economies of scale, large companies can operate at lower costs, which makes it difficult for SMEs to compete. Resources are limited and the SMEs may face difficulties in marketing, research and development, and international expansion (Dőry, 2023).

Related to the labor shortages, finding and retaining the right workforce is also a serious challenge for SMEs. Smaller businesses often cannot offer the same wages and benefits as larger companies, making it difficult to attract and retain talent.

However, adequate support mechanisms and openness to innovation enable them to successfully coping with these challenges (Wei and Chen, 2022). In order to support SMEs, a number of measures can be taken to facilitate their operation and growth. These include expanding funding opportunities, reducing regulatory burdens, supporting innovation and improving training programs.

Expanding financing opportunities: Governments and financial institutions can launch a number of programs to facilitate the financing of SMEs. This may include government loan guarantees, low-interest loans, and venture capital funds, which may be particularly attractive to startups (Linares and Fernandez, 2020).

Reducing regulatory burdens: Reducing administrative burdens and simplifying the regulatory environment can significantly contribute to improving the operating conditions of SMEs. This may include tax benefits, simplified reporting obligations and the introduction of a single window (Mucci et al., 2021).

Support for innovation: Support for innovation is key to increasing the competitiveness of SMEs. This may include public subsidies, incubator programs and the creation of collaborative networks that facilitate the development and introduction of new technologies and business models (Dangelico et al., 2019).

Development of training programs: Training and further training of the workforce is also important for SMEs. Cooperation between the public and private sectors, the development of vocational training and further education programs can contribute to the management of labor market challenges and the retention of talent (Ferreira and Coelho, 2020).

In order to support SMEs, many governmental and international organizations have launched various programs and initiatives (Kessler and Zipper-Weber, 2023). For example, the EU offers various financial instruments and programs for SMEs, such as the COSME program, which aims to increase the competitiveness and innovation capacity of SMEs. In the United States, the Small Business Administration (SBA) provides various loans and grants to SMEs.

The future prospects for SMEs are mixed, but there are many opportunities. Innovation and digitization will continue to be key factors in the success of SMEs. New technologies such as artificial intelligence, blockchain and IoT create new opportunities for SMEs to increase the efficiency of business processes and reach new markets.

E-commerce and digital marketing also play an increasingly important role in the growth of SMEs. Online platforms allow SMEs to reach a wider audience at a lower cost. Digitization offers SMEs the opportunity to compete in global markets, and the introduction of new technologies can help increase productivity and reduce costs.

In conclusion, small and medium-sized enterprises play a fundamental role in the global economy, contributing to economic growth, job creation and innovation. The special characteristics of SMEs, such as flexibility, innovativeness and close connection to local communities, promote economic dynamism and social cohesion. At the same time, SMEs face many challenges.

3.3. Hungarian family businesses in the food industry

Family businesses play a significant role in the food industry in Hungary and Europe (Németh and Németh, 2018). These businesses are not only the engines of the local economy, but also key players in the national and international food chain. The purpose of the following part of the paper is to provide a comprehensive picture of family businesses in the Hungarian food industry, their formation, current situation, economic importance, opportunities and development opportunities both in Hungary and in the European Union.

In Hungary, the definition of the concept of small and medium-sized enterprises (SMEs) and the support of their development was defined in the XXXIV of 2004. regulated by law. According to the legislation, organizations with a maximum of 249 employees, an annual net sales revenue of no more than 50 million euros, or a total balance sheet total of no more than 43 million euros, and a direct or indirect ownership share of the state or local government can be classified in this category. or together does not exceed 25%. The statistical delimitation is done according to the staffing category. Based on this, organizations employing no more than 49 people are classified as small enterprises, within which those with less than 10 people are considered micro-enterprises, and those with 50–249 people are considered medium-sized enterprises.

The majority of enterprises operating in Hungary belong to the group of small and medium-sized enterprises. The economic role of SMEs has increased in value, the background of which is primarily the processes of large companies, because a significant part of their activities have been outsourced in order to reduce costs. A significant part of the suppliers comes from smaller, more flexible businesses. While at first SMEs only operated in the local economy, including residential services, more recently they have also appeared in the field of innovative business services. These are mainly network-based enterprises entering the global market. From an economic point of view, the SME sector plays a significant role in the country's income generation, in the operation of foreign capital, in investments, and from a social aspect in job creation and employment. 70.0% of the SME sector is classified as family business.

Despite the fact that there was a predominance of micro-enterprises employing no more than nine people among small and medium-sized enterprises, only 36% of the sales revenue was realized. The weight of medium-sized enterprises, which represent 0.7% of SMEs, is similar to that of micro-sized ones, and that of small enterprises with 10–49 employees, which make up 4.1% of organizations, is 28%. The composition of sales according to staffing categories differed slightly by region. Micro-enterprises play a larger than average role in Southern Transdanubia and Northern Hungary, where they occurred most often. The share of small enterprises was also the highest in Southern Transdanubia and the Southern Great Plain, while that of medium-sized enterprises rose in Central and Northern Hungary, Central Transdanubia, and the Northern Great Plain.

Based on the examined indicators, the situation of SMEs improved slightly in 2022. However, a favorable change occurred primarily among medium-sized enterprises, the performance of organizations employing no more than 9 people fell short of the previous year.

Small and medium-sized enterprises are less and less able to survive after their formation. An average of 38% of SMEs established in 2007 existed five years after their establishment. In a territorial comparison, the survival ability of enterprises in Central Hungary and Western Transdanubia was the best.

3.3.1. The decline of the Hungarian food industry

The Hungarian food industry has a rich history. Agriculture and food production played an important role in Hungary's economy already in the middle ages. However, the creation of family businesses in the food industry can be dated to the end of the

19th century and the beginning of the 20th century, when agricultural production and industrialization strengthened.

In the period between the two world wars, many family businesses were established, specializing in local markets and special products. During the period of socialism, as a result of nationalizations and centralized economic policies, these enterprises were relegated to the background, and in many cases they ceased to exist or were transformed into state enterprises (Madari, 2021b).

After the regime change in 1989, privatization and the development of the market economy opened up new opportunities for family businesses. As a result of the privatization of former state-owned enterprises, the influx of foreign investments and the transition to the free market, many new family businesses were created in the food industry.

3.3.2. Challenges, opportunities

In the current state family businesses in the food industry in Hungary, cover a wide spectrum, from small producers and artisanal food producers to medium-sized processing plants. These businesses often use local ingredients and produce special, traditional Hungarian foods, such as sausages, cheeses, wines and brandies.

Family businesses face many challenges, including competition from large multinationals, financing difficulties, the regulatory environment and labor shortages (Braun et al., 2016b). In the food industry, quality assurance and food safety regulations are particularly important, the compliance of which can entail significant costs for smaller businesses.

However, family businesses in the food industry in Hungary have many of opportunities.

Innovation and technology are key to increasing the competitiveness of family businesses in the Hungarian food industry. New technologies such as automation and digitization make it possible to increase efficiency and reduce costs (Jang et al., 2022). Innovation can help develop new products and services and expand market opportunities (Catalano et al., 2021).

Sustainability is an increasingly important aspect in the food industry. Family businesses can benefit from the use of local raw materials and the application of sustainable production methods. Sustainability practices not only protect the environment, but can also increase consumer confidence and market positions.

There are significant opportunities for Hungarian family businesses in the food industry on international markets. Increasing exports and conquering new markets can be key to growth and long-term success. Entering the market within the EU can be particularly beneficial, as the common market and uniform regulatory environment make exporting easier (Gerő et al., 2021b).

The European Union offers a number of financial support and loan programs for SMEs, including family businesses in the food industry. These programs help businesses finance the necessary investments, implement innovation projects, and expand into the market (Veljkovic et al., 2019).

The EU also offers various training and development programs for family businesses aimed at developing entrepreneurial skills, improving management skills and expanding technological knowledge (Schell et al., 2023). These programs contribute to increasing the competitiveness of enterprises and promoting sustainable growth.

Hungarian family businesses in the food industry are important players in the national and European economy. These businesses contribute to economic growth, job creation and the development of local communities. Although they face many challenges, there are significant opportunities for innovation, sustainability and market expansion.

3.4. Definition of capacity expansion

Capacity expansion is one of the basic growth strategies of businesses, which enables the increase of production or service capabilities. This process is particularly important in terms of maintaining competitiveness and meeting market needs. The purpose of the following academic essay is to provide a comprehensive picture of the concept of capacity building, its importance, as well as the different strategies and challenges. Capacity expansion is the process by which a business increases its production or service capabilities in order to meet increasing market demand. This may include acquiring new machinery and equipment, building new facilities, improving existing infrastructure, and expanding and training the workforce.

The primary goal of capacity expansion is to satisfy market needs. In the case of increasing demand, businesses must increase their production capabilities in order not to lose the market to their competitors. As a result of insufficient capacity, companies cannot serve customers in time and in sufficient quantities, which may lead to a decrease in their market share.

Capacity expansion contributes to maintaining and increasing the competitiveness of enterprises. Greater capacity allows you to take advantage of economies of scale, which lowers costs per unit and increases profits. In addition, the introduction of advanced technologies and modern equipment improves product quality and production efficiency.

Capacity expansion promotes innovation and development. The introduction of new technologies and production methods allows businesses to develop new products and services that meet changing consumer needs and trends. Through innovation, companies can increase their market share and strengthen their brand.

Internal development is one of the most common forms of capacity expansion, during which the company increases its production capabilities with its own resources. This may include acquiring new machinery and equipment, expanding existing infrastructure, and training and expanding the workforce. The advantage of internal development is that the company can fully control the process and its results.

During external procurement, the company uses capacities from external sources. This can be done by involving subcontractors, contract manufacturing or using other external services. The advantage of external procurement is that the capacity can be increased quickly, without the need for significant investments. At the same time, it can be a disadvantage of less control and the risk of quality problems.

A mixed strategy means a combination of internal development and external procurement. The company is developing its internal capacities, while also using external resources in order to increase capacity faster and more flexibly. This approach allows the company to take advantage of both strategies while minimizing the disadvantages.

Companies may face financing challenges because a capacity expansion may require significant financial resources, the raising of which can be a serious challenge for businesses. The lack of adequate financing sources can hinder the increase of capacity and the growth of the enterprise. As a solution, companies can use different financing options, such as bank loans, capital raising or state subsidies.

The introduction and integration of new technologies into existing systems can also be a significant challenge. Due to the rapid pace of technological development, companies must constantly stay up-to-date in order to remain competitive. Involving the right technology partners and consultants can help in successful technology transition and development.

Capacity building often goes hand in hand with workforce expansion and training. The introduction of new technologies and production methods may require new skills that the existing workforce may not possess. Companies must invest in the training and development of their workforce to ensure efficient and smooth operations.

In summary, capacity expansion is a key strategy for businesses to meet growing market demand and maintain their competitiveness. Applying different capacity expansion strategies and successfully addressing the challenges allows companies to grow and develop in a rapidly changing economic environment. Adequate funding sources, technological developments and workforce training are key to successful capacity expansion and long-term business success.

3.5. Business decision making: Theories, gurus, and practical applications

Business decision-making is a complex process that depends on many factors, including the company's size, industry, organizational culture, and the external economic environment (Brundin and Languilaire, 2023). Research on theories of decision-making spans many disciplines, including economics, psychology, and management. The purpose of this chapter is to provide an overview of theories related to business decision-making, introducing some prominent researchers and their work, as well as practical applications. According to classical decision-making models, decision-makers rationally weigh available information and alternatives to make the best decision. One of the best-known representatives of these models is Herbert A. Simon, who received the Nobel Prize in 1978 for the development of the "General Decision-Making Theory". Simon introduced the concept of "bounded rationality", according to which decision makers do not have complete information and are not able to consider all possible alternatives, therefore they make "enough" decisions.

An outstanding researcher in the field of behavioral decision-making is Daniel Kahneman, who is also a Nobel Prize winner (he received the Nobel Prize in Economics in 2002). Kahneman and Amos Tversky jointly developed the "Prospect Theory", which shows how people evaluate risks and make decisions under uncertain conditions. Their research has shown that people tend to weigh losses more than gains, and that decision makers often show irrational preferences.

Strategic planning is one of the most important decision-making areas of businesses (Lee et al., 2023). Michael E. Porter, a professor at Harvard Business School, has done significant research in the area of competitive strategies and competitive advantage. Porter's "Five Forces Model" and "Value Chain Analysis" are widely used tools in the strategic analysis and planning of companies (Cioca et al., 2020).

Corporate finance decision-making includes investment decisions, financing decisions, and dividend policy. An outstanding researcher in the field of financial decision-making is Merton H. Miller, who received the Nobel Prize in Economics in 1990 for his joint work with Franco Modigliani, which examined the capital structure and dividend policy of companies (Modigliani-Miller theorem).

Innovation and product development decision-making is crucial for companies' growth and competitiveness (Yu et al., 2023). Clayton M. Christensen, Harvard Business School professor, creator of the theory of "disruptive innovation". Christensen's research has shown that smaller companies are often more innovative and able to disrupt the market, while large companies tend to develop incrementally.

It can be a challenge in decision-making, information asymmetry, when one party has more or better information than the other, can be a serious challenge in decision-making. This problem can be alleviated by transparent information systems, reliable data collection methods and adequate communication.

Cognitive biases such as confirmation bias or overconfidence can also affect the decision-making process. Conscious decision-making techniques and the inclusion of different perspectives can help minimize their impact.

Business decision-making is a complex process supported by a number of theoretical frameworks and practical tools. Prominent researchers such as Herbert A. Simon, Daniel Kahneman, John Nash, Michael E. Porter, and Clayton M. Christensen have made significant contributions to the development of decision-making theories and practices. Decision-making techniques such as decision trees, SWOT analysis and Monte Carlo simulation allow businesses to make more informed decisions. Dealing with decision-making challenges such as information asymmetry and cognitive biases is crucial for successful business operations.

3.6. Research GAP, research question

By grouping the relevant literature around key definitions, the authors identified several critical gaps in existing research, particularly in the areas of family business decision-making and capacity expansion, the authors created a summary table (**Table 3**) which helped to identify the research gap. Current studies tend to focus on individual aspects such as decision-making in SMEs or the emotional dimensions of family-owned enterprises, but there is a clear lack of comprehensive integration of these factors within the context of capacity expansion. This paper is designed to fill these research gaps by exploring how internal dynamics, such as socio-emotional wealth (SEW), heterogeneous top management teams (HET), and generational cooperation (GEN), influence capacity expansion decisions in family businesses.

In addition, the current literature often presents contradictory findings on the impact of these internal factors. While some research emphasizes the conservative nature of family businesses due to emotional or legacy-driven decisions, other studies suggest that the flexibility and strong communication within family firms can foster quicker decision-making in capacity expansion. This article addresses these inconsistencies by providing empirical data to clarify how these internal factors affect decision-making in family-owned SMEs specifically.

Moreover, existing studies frequently fall short in offering measurable frameworks for understanding the direct impact of internal factors like SEW and GEN on capacity expansion. This article contributes by developing a more structured approach to assess these influences, thus providing both theoretical advancement and practical insights for family businesses.

In sum, this research aims to bridge these identified gaps, offering a more holistic understanding of the internal mechanisms at play in family businesses, particularly regarding their strategies for growth and capacity expansion. Within this, the authors researched the internal factors influencing the decision.

Table 3. Summary table of the research GAP.

	Family businesses	SME's	Capacity expansion	Decision-making
Family businesses	-	x	-	x
SME's	x	-	x	x
Capacity expansion	-	x	-	-
Decision-making	x	x	-	-

Source: Authors own compilation.

This leads to the main research question: What internal factors influence decision-making regarding capacity expansion of SME family businesses?

And a sub-question: Is the model set up by the authors suitable for presenting the internal factors influencing the decision-making of Hungarian SME food industry family businesses regarding capacity expansion and the possible decision outcomes?

4. Results and discussion

The questionnaire was sent to the database of VOSZ (National Association of Entrepreneurs), MAPI (Hungarians on the Market Club) and the Association of Family Entrepreneurs, covering approximately 500 addresses. After data cleaning, 135 fillings were analyzed with SPSS software. For a study to be representative, the sample size must adequately reflect the diversity and characteristics of the population. The databases used nationally summarize family businesses, all of the samples used correspond to the category of family business and food industry SME. However, distortions may occur, as the organizations—whose databases the questionnaire was sent to—have voluntary members, the sample therefore included primarily businesses that voluntarily joined one of the organizations. In-depth interviews were conducted with the heads of five family businesses, which were analyzed using tagging and artificial intelligence. The tagging technique is a qualitative data analysis method used to systematically identify and categorize key themes, concepts, or patterns within in-depth interview transcripts. By tagging or labeling specific segments of the data, researchers can organize the information into meaningful categories, facilitating a more structured and insightful analysis. This approach is particularly useful in thematic analyses, where the goal is to uncover underlying patterns and themes across multiple interviews. In the context of this study, artificial intelligence (AI) is likely to have improved the analysis by enhancing the precision and efficiency of data processing, especially in tasks such as identifying patterns, analyzing complex datasets, and optimizing decision-making models. AI-driven tools can automate data analysis steps that might otherwise be prone to human error, ensuring that the results are more objective and systematic. The model previously created by the authors was validated by both qualitative and quantitative research. According to the model, the following three internal factors influence the decisions of family businesses regarding capacity expansion: socio-emotional wealth, cooperation between generations, heterogeneous top management team. We were able to identify three possible outcomes of a decision: "yes", "no" or "postponement" of the decision.

4.1. Analysis of in-depth interviews

The in-depth interviews were conducted with five carefully selected decision-makers of family businesses in the Hungarian food industry. The business managers were informed about the purpose of the interview that all five companies had carried out capacity expansion activities in the last 10 years. The authors built the questions around the three internal factors that influence decisions in the model, similar to previous research. The results demonstrate that all three factors can be found in the examined family businesses. The following table (**Table 4**) presents the grouping of answers analyzed with the help of artificial intelligence.

Based on the data, we were able to identify some key internal factors influencing the decisions of family businesses:

1) Socio-emotional wealth (SEW): A strong family ownership background and social responsibility influence investment decisions, although in some cases this may reduce the willingness to take risks.

2) Heterogeneous senior management group (HET): The composition and management style of companies' management play an important role in strategic decision-making and innovation.

3) Cooperation between generations (GEN): Cooperation between different generations facilitates the adaptation and growth of enterprises, especially during capacity expansion decisions.

The answers to the specific questions are broken down into the most frequently occurring sub-factors within the three large groups, and the results are presented in a table. It can be seen from the table that at least two of the three factors are found in every company.

The table reflects insights gathered from five family business leaders, focusing on critical themes such as family council, social judgment, family strength, and other core aspects of family business dynamics. These concepts offer valuable perspectives on how family businesses manage internal relationships, leadership transitions, and the integration of external expertise.

Key Themes and Observations

1) Family Council:

The establishment and role of a family council varied across the businesses. A family council typically serves as a formalized body for decision-making, particularly in managing the interaction between family and business interests. Some leaders emphasized its importance for maintaining family unity and facilitating structured communication, while others saw it as unnecessary, preferring informal discussions.

2) Social Judgment:

The influence of social judgment on decision-making processes emerged as a significant theme. Leaders expressed how external perceptions—both within the family and from society at large—can impact business decisions. For instance, concerns about the family's public reputation and maintaining a positive image influenced leadership styles, succession choices, and the involvement of non-family members in the business.

3) Family Strength:

Family strength was frequently mentioned as a vital factor in sustaining the business. Leaders attributed their businesses' success to resilience, trust, and unity within the family. A strong family bond was viewed as a stabilizing force, especially during challenging times or periods of significant change, such as leadership transitions or market shifts.

4) Participation of Family Members:

The level of participation of family members in the business was variable, with some businesses encouraging wide family involvement, and others limiting it to key decision-makers. This concept is closely related to the governance structure, with more involvement often leading to a stronger sense of shared responsibility but sometimes resulting in conflicts or slower decision-making.

5) Predecessor and Successor Collaboration:

Predecessor and successor collaboration was seen as crucial for smooth leadership transitions. Many interviewees highlighted the need for collaboration between the outgoing leader and the incoming successor to ensure knowledge transfer and to maintain the business's strategic direction. Successful transitions often relied on strong mentoring relationships and shared visions between generations.

6) Generational Change:

Generational change was a key theme across all interviews. Leaders discussed the challenges and opportunities arising from the transmission of leadership to the next generation. Issues such as preserving family traditions while embracing innovation were frequently mentioned. Some family businesses had well-defined generational transition plans, while others relied on more informal approaches based on the readiness and interests of the next generation.

7) Non-family Managers:

The involvement of non-family managers varied across the businesses. Some leaders saw the inclusion of non-family managers as essential for bringing in external perspectives and professionalizing the business. Others expressed concerns about the loyalty and commitment of non-family members, particularly when family interests were at stake.

8) External Experts:

The use of external experts was another recurring theme. Some family businesses engaged external consultants or advisors to provide specialized knowledge and facilitate decision-making. These experts were often called upon during periods of significant change, such as succession or business expansion, to offer objective, professional advice.

9) Authorized Managers:

Lastly, the concept of authorized managers referred to non-family individuals entrusted with significant decision-making power. This delegation of authority was generally seen as a means to ensure the efficient operation of the business, even in case there was no direct involvement of family members in day-to-day management. However, this approach also required a high level of trust between the family and the authorized manager.

Patterns and Divergences

While several shared themes emerged, the interviews also revealed crucial differences in the manner in which each business approached these concepts. For example, businesses with well-established family councils and clear roles for non-family managers reported more structured decision-making processes and smoother leadership transitions. In contrast, those relying on informal family discussions tended to face more challenges during periods of generational change.

The involvement of external experts and the delegation to authorized managers also varied, with some businesses showing more openness to external input and professional management than others. Leaders who embraced these concepts tended to view them as necessary for growth and sustainability, while others expressed hesitation, citing concerns about maintaining family control.

The interviews provide valuable insights into how family businesses manage critical aspects such as family strength, participation of family members, and generational change. Key concepts like family council, social judgment, and the integration of non-family managers play a vital role in shaping the governance and future of these businesses. The balance between maintaining family values and introducing external expertise is delicate, albeit essential for the long-term success of family enterprises. This underscores the presence of the above influencing internal factors in family businesses' capacity expansion decisions.

Table 4. Categorization of internal factors influencing the decision are categorized based on in-depth interviews.

	Social-emotional wealth (SEW)			**Cooperation between generation (GEN)**			**Heterogeneous top manager team (HET)**		
	Family council	Social judgment	Family strenght	Participation of family members	Predecessor and successor collaboration	Generational change	Non-family managers	External experts	Authorized managers
Fam1	x		x		x	X	x		x
Fam2	x	x	x	x	x	X	x	x	x
Fam3		x	x	x		X	x		x
Fam4	x		x	x	x	X	x	x	
Fam5		x	x	x	x	X	x	x	x

Source: Author's own compilation.

4.2. Analysis of the online questionnaire

The online questionnaire was sent out by MAPI to the members of VOSZ and the National Association of Family Businesses. After data cleaning, 135 valid questionnaires were analyzed, using SPSS software. The results of the analysis yielded the following conclusions regarding the internal factors influencing the decisions of family businesses:

Descriptive Statistics: With the help of descriptive statistics, we were able to examine the distribution and basic characteristics of individual variables. The results shows that the majority of businesses are largely family-owned (over 51%) and operate in food industries.

Correlation Analysis: With the help of the correlation analysis, we investigated the relationship between various internal factors and the decisions of businesses. Some important correlations were detected:

- Flexibility and quick response: A positive correlation was found with capacity expansion decisions, suggesting that businesses that respond flexibly and quickly to market changes are more inclined to invest in capacity expansion.
- Strong social consciousness: A negative correlation was detected with capacity expansion investments, suggesting that companies with a strong social consciousness are less inclined to make such investments.
- Introduction of new products and services: A positive correlation was found with capacity expansion, suggesting that innovative enterprises are more inclined to expand their capacity.

To gain a more in-depth understanding of the results, it is necessary to review the complete descriptive statistical table and correlation matrix.

Examining the values of the analysis in relation to the meridian, the presence of all three factors was confirmed.

Socio-Emotional Wealth (SEW) refers to the non-financial aspects of the business that family members consider when making decisions. This includes factors like emotional attachment, family legacy, and maintaining control over the business.

Table 5 reveals that the mean score for Q1 is 6.24, with a standard deviation of 1.18. This indicates that most respondents place a high value on socio-emotional aspects, though there is some variation in the intensity of this sentiment.

Q2 and Q3 (potentially other SEW dimensions) have mean values of 4.47 and 4.96, respectively, with higher variability (std devs of 1.54 and 1.64). This suggests that while emotional factors are central to decision-making, different aspects of SEW (e.g., control, legacy) may not be equally prioritized across all family businesses.

The relatively high SEW scores across all three dimensions reflect the deep emotional involvement of family members in the business. This can often lead to conservative decision-making, as preserving family control and legacy may outweigh profit-maximizing strategies. However, the variability implies that not all family businesses are equally influenced by socio-emotional concerns, indicating the potential for more pragmatic, financially-driven decision-making in some cases.

Heterogeneous top management teams (HET) refer to the diversity of experiences, skills, and perspectives within the family business's leadership. Diversity within the top management team can influence decision-making by introducing multiple viewpoints, potentially leading to more innovative solutions or more comprehensive risk assessments.

Table 6 demonstrates that the distribution and variability of responses for HET-related questions are likely to be captured across similar metrics as SEW. A heterogeneous management team is expected to affect decision-making by balancing the emotional attachment of family members with the professional insights of external managers. The presence of diversity within the management team can help mitigate the emotional biases inherent in family businesses by fostering a more objective approach to decision-making.

A higher degree of management heterogeneity can lead to more balanced and forward-thinking decisions, as it combines the family's deep understanding of the business with the external perspectives of non-family managers or diverse family members. However, the challenge lies in managing the potential conflicts between family values and business pragmatism.

Generational cooperation (GEN) is a key factor in ensuring the longevity and sustainability of family businesses. Cooperation between the predecessor and the successor generation often determines the success of leadership transitions and the continuity of the business's values and goals.

Table 7 shows that the generation cooperation scores reflect a range of collaboration levels between the older and younger generations in family businesses. Strong cooperation between generations can lead to smoother leadership transitions, where the younger generation respects the values of the predecessor while bringing in innovative ideas and new strategies.

The variability of the data on generational cooperation is likely to suggest that while some family businesses successfully managing generational transitions, others struggle with conflict or conflicting visions between generations. This could lead to stalled decision-making or even fractures in leadership, potentially threatening the business's stability.

Effective GEN cooperation fosters trust and shared vision, helping family businesses adapt to changing market conditions without risking a loss of identity. However, weak cooperation can result in misaligned strategies or resistance to change, which can be detrimental in dynamic markets.

The interaction between SEW, HET, and GEN has profound implications for decision-making in family businesses. High SEW indicates that emotional and legacy-related concerns dominate decision-making, potentially leading to more conservative or risk-averse strategies. However, the presence of a heterogeneous top management team (HET) can introduce more varied perspectives, helping balance emotional biases with professional judgment. Furthermore, strong cooperation between generations (GEN) ensures that leadership transitions are smooth, allowing for continuity in the business's strategic vision while embracing new ideas and innovations.

The internal factors of socio-emotional wealth, heterogeneous top management teams, and cooperation between generations significantly influence decision-making in family businesses. The data indicate that while emotional factors are central to family businesses, diversity in the management team and strong intergenerational collaboration can mitigate potential emotional biases, leading to more effective and sustainable decision-making. Understanding these internal dynamics is critical for family businesses seeking to balance family values with long-term business success.

Table 5. Aggregate analysis of the online questionnaire, regarding SEW Response frequencies (*N* = 135).

	SEW		
	Q1	Q2	Q3
mean	6.237037	4.4667	4.9556
std	1.179472	1.5395	1.6385
min	3	1	1
25%	6	3	4
50%	7	5	5
75%	7	5	6
max	7	7	7

Table 6. Aggregate analysis of the online questionnaire regarding HET. Response frequencies (*N* = 135).

	HET		
	Q1	Q2	Q3
mean	6.162963	5.8593	3.8148
std	1.160336	2.0155	1.9362
min	4	1	1
25%	5	6	2
50%	7	7	3
75%	7	7	6
max	7	7	7

Table 7. Aggregate analysis of the online questionnaire regarding GEN. Response frequencies (*N* = 135).

	GEN		
	Q1	Q2	Q3
mean	3.666667	4.837	4.7926
std	1.969923	1.7543	1.9398
min	1	2	2
25%	2	4	3
50%	3	5	5
75%	5	6	7
max	7	7	7

4.3. Model testing

Both the in-depth interviews and the results of the online questionnaire were used for testing the model (**Figure 2**). The input side of the model features internal factors that influence decisions related to capacity expansion divided into the three groups described above. The output page reveals the possible decision alternatives, which are "yes", "postponement" and "no". Among the respondent companies, we can find a similar proportion of the three answers. Those who answered "yes" are embarking on capacity expansion. Postponement in this case indicates the inclusion of capacity expansion in the company's long-term plans, which, however, is not anticipated to occur within 5 years. In the case of "no", the company is not considering capacity expansion.

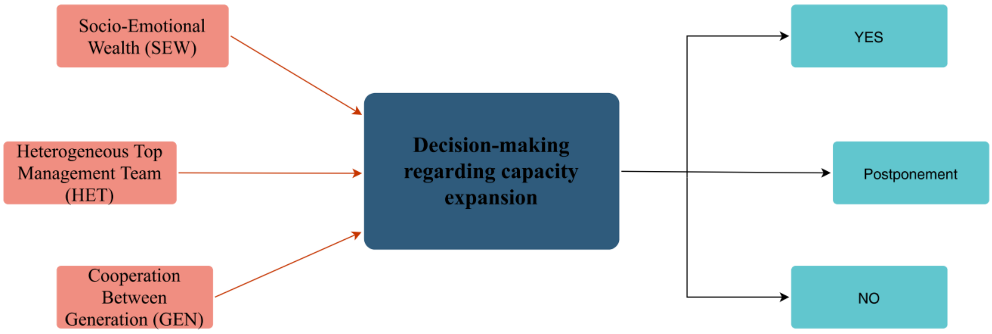

Figure 2. Model of decision-making regarding capacity expansion in family businesses.

The results of the in-depth interviews and the online questionnaire also confirmed the validity of the model.

4.4. Answers to the research question

The research question is the following: What internal factors influence decision-making regarding the capacity expansion of SME family businesses?

The main research question is answered by the three groups of internal factors established in the model, which are as follows:

- Socio-emotional wealth (SEW)—that is, the force that holds family businesses together;
- Heterogeneous top management team (HET)—i.e., top managers are not exclusively family members, but external managers, employees and consultants;
- Cooperation of generations (GEN)—that is, the participation of several generations within the family in decision-making.

And a sub-question: Is the model set up by the authors suitable for presenting the internal factors influencing the decision-making of Hungarian SME food industry family businesses regarding capacity expansion and the possible decision outcomes?

The research carried out among family businesses in the Hungarian food industry validated the model, both in the case of the input—the internal factors divided into three groups - and the output of the possible decision alternatives.

5. Conclusion

The main goal of the paper was to validate the decision-making model previously set up by the authors, which proved successful according to the results of the research. Based on the model presented in the article, we propose the following specific recommendations for family businesses operating in Hungary in the food industry on how to apply the model in practice when making capacity expansion decisions:

1) Prioritize Socio-Emotional Wealth (SEW) but balance it with business pragmatism

- Recommendation: Family businesses should recognize the importance of socio-emotional wealth (SEW), such as family control, legacy, and emotional attachment, in their decision-making. However, they should also establish clear business criteria to ensure that emotional factors do not hinder strategic capacity expansion. This can be achieved by setting specific financial goals alongside family-centric objectives.
- Practical Application: Developing a framework that evaluates potential expansion projects, taking into consideration not only emotional values but also profitability, market demand, and long-term sustainability.

2) Foster Cooperation Between Generations (GEN)

- Recommendation: Successful capacity expansion often depends on strong cooperation between the predecessor and successor generations. Family businesses should actively engage the younger generation in strategic discussions, ensuring that they contribute new ideas and innovative approaches to business growth.
- Practical Application: Implement structured mentorship programs allowing the older generation to share their experience and knowledge, while promoting the contribution of the younger generation through researching new technologies or market opportunities facilitating capacity growth.

3) Enhance the Role of Heterogeneous Top Management Teams (HET)

- Recommendation: Family businesses should strive to create diverse top management teams that include both family members and external experts. This diversity can bring in varied perspectives that can facilitate more balanced and well-informed capacity expansion decisions.
- Practical Application: A regular assessment of the composition of the management team and considering hiring non-family experts in areas such as finance, operations, or marketing to bring in fresh perspectives and technical expertise that can support sustainable expansion.

In the future, the authors plan to test the model on the sample of Italian food industry family businesses, using similar data collection and data analysis methods. Another plan is to examine financial data in addition to internal factors. The subject of future research could be the mutual influence of the internal factors presented in the model, as well as a more exhaustive presentation of the impact of socio-emotional wealth on decision-making, potentially through case studies.

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References

Almeida, F. (2021). Open-Innovation Practices: Diversity in Portuguese SMEs. Journal of Open Innovation: Technology, Market, and Complexity, 7(3), 169. https://doi.org/10.3390/joitmc7030169

Arnold, T., Kleve, H., & Roth, S. (2023). Within a mesh of expectations: Dealing with dilemmas in business families using systemic tools from family coaching. Systems Research and Behavioral Science, 40(4), 713–722. https://doi.org/10.1002/sres.2962

Biel, M., & Ślusarczyk, B. (2022). Management methods and tools in family businesses: Impact on the effectiveness of achieving goals. Journal of International Studies, 15(4), 180–195. https://doi.org/10.14254/2071-8330.2022/15-4/11

Birdthistle, N., & Hales, R. (2022a). What is a family business and their contribution to the global economy? In Emerald Publishing Limited eBooks (pp. 11–15). https://doi.org/10.1108/978-1-80382-487-120221002

Birdthistle, N., & Hales, R. (2022b). Family Businesses and Their Importance to Worldwide Economies. In Emerald Publishing Limited eBooks (pp. 9–13). https://doi.org/10.1108/978-1-80382-573-120221002

Bite, P., & Konczos-Szombathelyi, M. (2020). Employer branding concept for small- and medium-sized family firms. Journal of International Studies, 13(3), 143-160. doi:10.14254/2071-8330.2020/13-1/1

Braun, M., Latham, S., & Porschitz, E. (2016). All together now: strategy mapping for family businesses. Journal of Business Strategy/the Journal of Business Strategy, 37(1), 3–10. https://doi.org/10.1108/jbs-12-2014-0154

Brundin, E., & Languilaire, J. E. (2023). When the display of emotion is not enough: An emotion boundary management perspective on the quality of strategic decisions. Long Range Planning, 56(5), 102245. https://doi.org/10.1016/j.lrp.2022.102245

Bürgel, T. R., & Hiebl, M. R. W. (2023). Conflict Management Strategies and the digitalization of family Firms: The moderating role of generational ownership Dispersion. IEEE Transactions on Engineering Management, 1–20. https://doi.org/10.1109/tem.2023.3293855

Catalano F., Bianchi B., Berardi A., Leone A., Tamborrino A., 2021, Experimental trials and dynamical simulation of the potential biogas production in a frozen food industry. Chemical Engineering Transactions, 87, 295–300.

Central Statistics Office https://www.ksh.hu/docs/hun/xftp/idoszaki/regiok/gyorkkv12.pdf

Central Statistics Office https://www.ksh.hu/stadat_files/gsz/hu/gsz0018.html

Cioca, A., Wehbe, K., Popescu, D., & Popescu, C. (2020). The main drivers for sustainable decisions in a family business that impact the company's performance. Sustainability, 12(20), 8659. https://doi.org/10.3390/su12208659

Civelek, M., Ključnikov, A., Fialová, V., Folvarčná, A., & Stoch, M. (2021). Major obstacles in innovative activities of family-owned SMEs: Evidence from Czechia. Economics & Sociology, 14(2), 137–149. https://doi.org/10.14254/2071-789x.2021/14-2/7

Csiba-Herczeg A., Koteczki R., Lukács B., Balassa B. E., 2023, Case study-based scenario analysis comparing GHG emissions of wine packaging types. Cleaner Engineering and Technology, 15, 100649.

Da Silva Hounsell, M., Coelho, A., Sousa, N., & Quesado, P. R. (2021). Family Business Management: A case study in the Portuguese footwear industry. Journal of Open Innovation: Technology, Market, and Complexity, 7(1), 55. https://doi.org/10.3390/joitmc7010055

Dangelico R.M., Nastasi A., Pisa S., 2019, A comparison of family and nonfamily small firms in their approach to green innovation: A study of Italian companies in the agri - food industry. Business Strategy and the Environment, 28, 1434–1448.

Delgado - García, J. B., Mazagatos, V. B., Romero - Merino, M. E., & Díaz - Portugal, C. (2023). Family CEO affect and R&D investments of family firms: The moderation effect of family ownership structure. Long Range Planning, 56(5), 102230. https://doi.org/10.1016/j.lrp.2022.102230

Dőry T., (2023) Key Factors of Sustainability-Oriented Innovation on Competitiveness of SMEs: A Review, Chemical Engineering Transactions, Vol 107, 31.-36, https://doi.org/10.3303/CET23107006

European Commission https://single-market-economy.ec.europa.eu/smes/supporting-entrepreneurship/family-business_en, downloaded 2023. 11. 24.

Ferreira, J., & Coelho, A. (2020). Dynamic capabilities, innovation and branding capabilities and their impact on competitive advantage and SME's performance in Portugal: the moderating effects of entrepreneurial orientation. International Journal of Innovation Science, 12(3), 255–286. https://doi.org/10.1108/ijis-10-2018-0108

Gerő, H. E. J., Kincses, Á., & Tóth, G. (2021). Spatial characteristics of domestic micro, small and medium enterprises. Területi Statisztika, 61(6), 769–796. https://doi.org/10.15196/ts610604

Guedes, M. J., Patel, P. C., Kowalkowski, C., & Oghazi, P. (2022). Family business, servitization, and performance: Evidence from Portugal. Technological Forecasting and Social Change, 185, 122053. https://doi.org/10.1016/j.techfore.2022.122053

Hernández‐Linares, R., & Fernández, M. C. L. (2020). Entrepreneurial orientation, learning orientation, market orientation, and organizational performance: Family firms versus non-family firms. European Journal of Family Business, 10(1), 6–19. https://doi.org/10.24310/ejfbejfb.v10i1.6780

Herrero, I. (2017). Family involvement and Sustainable Family Business: Analysing their effects on diversification strategies. Sustainability, 9(11), 2099. https://doi.org/10.3390/su9112099

Howorth, C., & Ali, Z. a. H. (2001). Family business succession in Portugal: an examination of case studies in the furniture industry. Family Business Review, 14(3), 231–244. https://doi.org/10.1111/j.1741-6248.2001.00231.x

Hsueh, J. W., Campopiano, G., Tetzlaff, E., & Jaskiewicz, P. (2023). Managing non-family employees' emotional connection with the family firms via shifting, compensating, and leveraging approaches. Long Range Planning, 56(5), 102274. https://doi.org/10.1016/j.lrp.2022.102274

Jang, J. A., Lee, E., & Jung, H. (2022). A Study of Consumers' Perceptions of Take-Out Food before and after the COVID-19 Outbreak: Applying Big Data Analysis. Sustainability, 14(19), 11889. https://doi.org/10.3390/su141911889

Jones, O., & Li, H. (2017). Effectual entrepreneuring: sensemaking in a family-based start-up. Entrepreneurship and Regional Development, 29(5–6), 467–499. https://doi.org/10.1080/08985626.2017.1297854

Kathuria, A., Karhade, P. P., Ning, X., & Konsynski, B. R. (2023). Blood and Water: Information technology investment and control in family-owned businesses. Journal of Management Information Systems, 40(1), 208–238. https://doi.org/10.1080/07421222.2023.2172770

Keßler, A., & Zipper-Weber, V. (2023). Born-again global internationalization in family businesses as a process: a dynamic capabilities perspective in the context of socioemotional wealth. Journal of Family Business Management, 13(4), 1366–1391. https://doi.org/10.1108/jfbm-01-2023-0005

Kleve, H., Koellner, T., Von Schlippe, A., & Rüsen, T. A. (2020). The business family 3.0: Dynastic business families as families, organizations and networks—Outline of a theory extension. Systems Research and Behavioral Science, 37(3), 516–526. https://doi.org/10.1002/sres.2684

Kotlar, J., Fang, H., De Massis, A. V., & Frattini, F. (2014). Profitability Goals, Control Goals, and the R&D Investment Decisions of Family and Nonfamily Firms. Journal of Product Innovation Management, 31(6), 1128–1145. https://doi.org/10.1111/jpim.12165

Lee, C., Chen, H. C., Peng, C. L., & Chen, S. H. (2023). Sustainability of Taiwanese SME family Businesses in the Succession Decision-Making Agenda. Sustainability, 15(2), 1237. https://doi.org/10.3390/su15021237

Liu, T., & Yu, X. (2023). Micro-foundations of strategic decision-making in family business organisations: A cognitive neuroscience perspective. Long Range Planning, 56(5), 102198. https://doi.org/10.1016/j.lrp.2022.102198

Madari, Z. (2021). Prospects of the Hungarian mid-sized enterprises in agriculture. Köz-gazdaság, 16(1), 39–49. https://doi.org/10.14267/retp2021.01.05

Mitrović, S., Marić, M., Subotić, M., Dudić, B., & Greguš, M. (2019). Family entrepreneurship and personal career preferences as the factors of differences in the development of entrepreneurial potential of students. Sustainability, 11(20), 5693. https://doi.org/10.3390/su11205693

Mucci, D. M., Jorissen, A., Frezatti, F., & De Souza Bido, D. (2021). Managerial controls in private family firms: the influence of a family's decision premises. Sustainability, 13(4), 2158. https://doi.org/10.3390/su13042158

Nemes K., Konczos-Szombathelyi M., (2023), Capacity Expansion for Sustainable Development in Family Businesses – Recyclable Packaging Materials in Food Industry, Chemical Engineering Transactions, vol.107, 181-186 DOI:10.3303/CET23107031

Nemes, K., & Konczos-Szombathelyi, M. (2023). On the way to a new model for decision-making regarding capacity expansion in small and medium sized family businesses: a systematic literature review. In E. Pinto da Costa, M. do Rosario Anjos, & L. Lovrencic Butkovic (Eds.). 98th International Scientific Conference on Economic and Social Development. Book of Proceedings. pp. 304-311. Varazdin Development and Entrepreneurship Agency

Németh, K., & Nèmeth, S. (2018). Professzionalizálódó családi vállalkozások Magyarországon [Professionalizing family businesses in Hungary]. Prosperitas, 5(3), 24–47. https://doi.org/10.31570/prosp_2018_03_2

Putritamara, J. A., Hartono, B., Toiba, H., Utami, H. N., Rahman, M. S., & Masyithoh, D. (2023). Do Dynamic Capabilities and Digital Transformation Improve Business Resilience during the COVID-19 Pandemic? Insights from Beekeeping MSMEs in Indonesia. Sustainability, 15(3), 1760. https://doi.org/10.3390/su15031760

Schell, S., De Groote, J. K., Richard, S., Hack, A., & Kellermanns, F. W. (2023). The role of affect in the selection of nonfamily top management team members in family businesses. Long Range Planning, 56(5), 102288. https://doi.org/10.1016/j.lrp.2022.102288

Utrilla, P. N., Moreno, V. M., Corpas-Iglesias, F. A., & Cortés‐García, F. J. (2018). Family businesses transitioning to a circular economy model: the case of "Mercadona." Sustainability, 10(2), 538. https://doi.org/10.3390/su10020538

Van, H. T., Huu, A. T., & Ushakov, D. (2017). Liberal reforms & economic growth: Current issues and interrelations. Journal of International Studies, 10(4), 109–118. https://doi.org/10.14254/2071-8330.2017/10-4/8

Vieira, E. (2017). Board of directors characteristics and performance in family firms and under the crisis. Corporate Governance, 18(1), 119–142. https://doi.org/10.1108/cg-01-2017-0010

Wei, X., & Chen, L. (2022). Dispersion of family ownership and innovation input in family firms. Sustainability, 14(14), 8418. https://doi.org/10.3390/su14148418

Yong, J. Y., & Acosta, R. F. (2024). Innovation and business diversification for family business continuity. In Emerald Publishing Limited eBooks (pp. 83–89). https://doi.org/10.1108/978-1-83753-760-020241009