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Examining the Resilience of Hungarian Family Enterprises Using an Economic Resilience Model for 2020-2022

SUMMARY

This paper examines the relationship between the economic resilience of Hungarian family small and medium-sized enterprises, their direct industry competitors and leading industry enterprises in the context of the economic downturn, inflationary pressures and the initial period of the Russian-Ukrainian war between 2020 and 2022. The findings of the study, based on empirical evidence, indicate a correlation between the economic resilience of the samples over the period under examination, albeit a weak one. Further analysis of the data suggests that the industry competitors in the lead demonstrated the greatest economic resilience in terms of the distribution of their respective sample sizes. It is noteworthy that over the period under consideration, a considerable proportion of the main activities and enterprises exhibited sustained growth, with only a limited number of cases of sustained or persistent decline.

Keywords: family enterprises, non-family enterprises, small and medium-sized enterprises, economic resilience

Jel-code: D20, D22, L25, L26

INTRODUCTION

Family businesses are of significant economic importance at the global and regional levels, particularly within the small and medium-sized enterprise sector. Hungary provides a case in point (Katona, 2023). These businesses frequently operate across multiple generations and are profoundly embedded within local communities. The distinctive organisational structure and operational characteristics of family businesses confer specific advantages that can contribute to achieving effective economic resilience in comparison with direct competitors and industry leaders. Nevertheless, there is a need for further investigation to ascertain whether family enterprises truly demonstrate enhanced resilience during periods of financial instability and crisis. Additionally, it is essential to determine whether there is a correlation between the economic resilience of direct competitors and industry leaders, or whether distinctive characteristics inherent to the market and the enterprise can be identified as contributing factors.

LITERATURE REVIEW

1. The family businesses and typological approaches

The academic literature on the definition and categorisation of family businesses is extensive, comprising a multitude of definitions and approaches. However, there is no consen-

sus among researchers in the field regarding the most important basic criteria and characteristics for categorising family businesses (Handler, 1989; Littunen and Hyrsky, 2000). The discrepancies can be attributed, among other factors, to the heterogeneity of perspectives and methodologies employed in disparate research studies, as well as to the influence of the distinctive characteristics inherent to each field of analysis or country.

In her study, Handler (1989) defines family enterprises on the basis of two key criteria: majority share ownership and active family participation in business management and strategic decision-making. This definition also places emphasis on the role of the family in terms of ownership and management, as well as the significance of intergenerational transitions and transitions in general. Furthermore, the definition highlights the significance of family values and long-term commitment, which are distinctive characteristics of family businesses in comparison to other forms of business. Gersick et al. (1997) have defined family businesses and their development in a life-cycle approach, according to which four types can be identified:

- First-generation founder/owner-managed businesses: challenges include capitalisation and determining the ownership structure of the next generation.
- Sibling-owned, fast-growing and changing businesses: overlapping shared control of owners, defining the role of non-employee owners and retaining acquired capital are challenges.
- Complex, mature businesses owned by a consortium of cousins: the most common difficulty is dealing with the complexity and overlap of family and ownership.
- Family businesses in need of succession: the challenges include appointing a successor and finding someone with the right leadership and professional skills and competences. In addition, managing the financial aspects of the succession process is also a major challenge, while preserving the values, stability and competitiveness of the business is also an important challenge during succession.

The literature on the classification and distinction of family businesses from other types of businesses can be based on a number of different approaches. These include the examination of family-business relationships (Reid et al., 1999; Chrisman et al., 2013), the analysis of management characteristics (Leach, 2016), an investigation of ownership dimensions and business life cycles (Gersick et al., 1997), an evaluation of the business strategy employed (Miller and Le Breton-Miller, 2006), an assessment of the degree of family involvement (Shanker and Astrachan, 1996), and an examination of the

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business goals and objectives displayed (Williams et al., 2018; Węclawski and Żukowska, 2019).

Due to the different approaches and interpretations of how family businesses are classified and defined, it is difficult to accurately determine the actual size of these businesses and their role and impact on the economy. Nevertheless, their economic importance and size is undisputed.

2. Economic resilience

Economic resilience is the ability of companies to withstand and adapt quickly to different financial challenges and shocks. The aim of this overview is to present the key drivers of economic resilience, its impact on long-term business sustainability, measurement best practices and the role of risk management in enhancing economic resilience.

The concept of economic resilience encompasses a range of dimensions, including operational, organisational, reputational and business model resilience within the business economy. Additionally, financial resilience, as a distinct yet interrelated aspect, merits attention (Huber et al., 2021). At the market level, factors contributing to financial resilience include consistency of production and sales, access to a reliable supply chain, environmental resilience, regional dimension and government social support. At the organisational level, flexibility, risk identification, earnings, foreign exchange benefits, innovation, firm size and responsiveness of partners and beneficiaries are of particular significance. The efficiency of employees in the utilisation of resources, as well as their capacity to engage in productive dialogue with shareholders, colleagues and other stakeholders, is also a crucial factor (Zahedi et al., 2022).

One study found a convex-convex relationship between economic resilience and corporate financial performance, indicating that optimal levels of economic resilience improve corporate financial performance. The study emphasized the importance of capital allocation for economic resilience to avoid under- or overinvestment in economic resilience (Zhang et al., 2023). In developing a basic resilience index, factors such as robustness, resource management, redundancy, and speed are integrated, which are driven by typical organizational functions such as operations, finance, strategy, and human resources. The study identified redundancy and reserve funds as the most influential factors and indicators of resilience, highlighting the importance of reserve funds, customer satisfaction and demand forecasts (Sambowo and Hidayatno, 2021).

METHODS

A number of research methodological, professional and statistical factors were taken into account when compiling the samples for the research area and for the empirical analyses. The population under study comprises the set of registered small and medium-sized enterprises in the form of a company operating in Hungary during the data collection and analysis period of June 2024, which:

- were located in Hungary;
- had annual net sales revenue of at least HUF 50 million on average over the years under review;
- had at least two owners;
- the enterprise was also in operation during the periods covered by the time-series survey;

- employed fewer than 250 persons on average;
- annual net sales revenue not exceeding EUR 50 million or annual balance sheet total not exceeding EUR 43 million on average over the years under review.

The population under study is estimated to comprise 143.215 enterprises, based on data from Céginfo.hu from June 2024 and the defined criteria. The samples selected for the purposes of this research can be classified into the following categories:

- Sample 1. (small and medium-sized family enterprises, taking into account statistical and professional selection criteria);
- Sample 2. (non-family small and medium-sized enterprises, taking into account statistical and professional selection criteria): direct, representative industrial competitors of the sampled enterprises;
- Sample 3. (taking into account statistical and professional selection criteria): Industry-leading competitors of family and non-family small and medium-sized enterprises.

Several typological approaches from the literature, typically based on corporate management, have been used as methodological recommendations in the development of the family business sample. In the course of the research, family businesses were defined and classified according to the following criteria:

- At least two family members have ownership rights in the company, where their combined shareholding exceeds 50%, and
- at least one of the owners is involved in the management processes or day-to-day operations and the enterprise under examination is considered to be a family business according to the ownership structure, or
- at least one family member who does not have an ownership share is involved in the management processes or day-to-day operations and the enterprise under examination is considered to be a family enterprise according to the ownership structure, or
- there has been a generational change in the family circle or such a change is planned within the enterprise and the enterprise under examination is classified as a family enterprise on the basis of the ownership structure, or
- the informal work of the family circle plays a significant role in the management and day-to-day running of the enterprise, and the family circle may also be a primary or significant factor in the contribution of other resources (financial and non-financial).

Table 1. illustrates the distribution of the surveyed enterprises according to the sampling methodology employed.

The methodological basis for measuring and characterising resilience in economic terms was provided by Ron Martin's (2011) model of regional economic resilience. In his research,

Table 1. Distribution by sample of enterprises involved in the studies

	Frequency	Percentage	Cumulative percentage
Sample 1.	143	42,43%	42,43%
Sample 2.	143	42,43%	84,86%
Sample 3.	51	15,14%	100%
Total	337	100	–

Source: based on own editing (2024)

Martin (2011) conducted empirical analyses in different areas of the UK to map regional economic responses and variations to crises and recessionary shocks. The results of his research suggest that the model developed is able to characterise and differentiate regional economic resilience over economic cycles. Of particular note is the model’s ability to use mathematical and statistical techniques to identify the economic patterns and trends that underpin the model used in the applied study.

The model developed and applied in this research is based on the principle that the annual changes in annual net sales are used to evaluate the economic resilience performance of a given year. By coding these performances by economic cycles for the period in question, patterns can be identified that allow empirical analysis in terms of economic resilience and the examination of the relationships between patterns and their components. The model formula can be defined as follows:

- Annual performance measure = Δ Net sales revenue_{Year}
- Where,
- Δ Net sales revenue_{Year} = Net sales revenue in year t / Net sales revenue in year t-1
- If,
- Δ Net sales revenue_{Year} < 1, then the classification code = 0 (reduced performance, sensitivity)
- Δ Net sales revenue_{Year} > 1, then the classification code = 1 (increasing performance, resistance)

The research examines and presents the data in the code table according to the sample enterprises and the different years. The statistical data analyses use codes characteristic of the period and the enterprises, which are nominal variables that determine the research methodological tools for the data analyses and tests to be applied, such as cross-tabulation analysis, including Pearson Chi-Square, Likelihood Ratio tests and Cramer’s V symmetric indicator.

During our research we formulated 2 research questions.

1. Is there a statistical correlation between the economic resilience model and the samples under study?
2. Is there a relationship between the main activity of the sampled firms and the economic resilience model?

Our research questions are answered by descriptive statistical analysis and Chi2 test.

RESULTS

The descriptive statistics in Table 3. describe the economic resilience of the samples during the period of economic downturn, on the basis of which it can be observed that the greater part of the enterprises preserved their economic resilience even in the crisis period (the effects of the COVID-19 pandemic, the beginning of the Russian-Ukrainian war), in the long term, the values of the applied model appear in the classification of wealth and positive hysteresis. In the classification of

Table 2. Code table for the applied economic resilience model, 2020–2022

2020	2021	2022	Code	Classification
0	0	1	1	Recessionary exogenous shock
0	1	1	2	Positive Hysteresis
0	0	0	3	Decline
1	0	0	4	Decline since COVID
1	1	1	5	Sustained prosperity
1	0	1	6	Temporary decline
0	1	0	7	Temporary upturn
1	1	0	8	Purely war-related effects

Source: based on own editing (2024)

Table 3. Frequencies by economic resilience model codes of the analysed samples, 2020-2022

Classification	Sample 1	Sample 2	Sample 3	Total
Recessionary exogenous shock (1)	10	13	0	23
Positive Hysteresis (2)	46	30	12	88
Decline (3)	2	6	0	8
Decline since COVID (4)	5	8	1	14
Sustained prosperity (5)	47	37	27	111
Temporary decline (6)	12	20	6	38
Temporary upturn (7)	6	10	2	18
Purely war-related effects (8)	15	19	3	37
Total	143	143	51	337

Source: own editing based on results from IBM SPSS software (2024)

Table 4. Results of the cross-tabulation analysis of the economic resilience of the analysed samples, 2020-2022

	Value	df	Significance
Pearson Chi-Square	26.946	14	0.020
Likelihood Ratio	30.737	14	0.006
	Value	Approximate significance	
Cramer’s V	0.200	0.020	

Source: own editing based on results from IBM SPSS software (2024)

sustained prosperity and positive hysteresis, it is clearly visible that the largest number of family enterprises, however, when compared to the number of elements of the given sample, the performance related to the growth of 53.94% of the leading companies in the industry in the previous financial years, so you can find here and the highest proportion of successful economic resilience within the sample. It should be emphasised that there are few sample elements in the category of decline since COVID and decline, which suggests that the investigated enterprises were mostly economically resistant or adaptable to the crisis situation and inflationary pressure.

Table 4. illustrates the results of the cross-tabulation analysis carried out, which shows that there is a significant relationship between the economic resilience values of the samples in the period of economic downturn and crisis analysed, according to the Person’s Chi-Square and Likelihood Ratio tests, at a 5% significance level. The relationship can be characterised by taking into account the Cramer’s V symmetric indicator, whose value of 0.200 indicates a weak relationship between variables. Possible causes and determinants of the relationship may include the effects of government and European Union subsidies and

Table 5. Frequencies of samples by model codes characterising economic resilience by main activity by TEÁOR'08, 2020-2022

Code	1	2	3	4	5	6	7	8	Total
Agriculture	2	2	0	0	9	5	3	3	24
Manufacturing	6	22	0	3	19	9	2	3	64
Electricity and heat supply	1	12	1	3	5	2	7	3	34
Construction	3	9	1	0	8	6	1	7	35
Wholesale and retail trade	4	22	3	2	41	8	2	13	95
Transportation and storage	3	8	1	0	8	1	1	2	24
Accommodation and food service	0	1	0	0	3	0	0	0	4
Professional and technical activities	1	5	1	0	1	0	0	2	10
Education	1	1	0	3	2	1	2	1	11
Healthcare and social services	1	0	1	2	10	5	0	2	21
Other service activities	1	4	0	1	4	1	0	1	12
Not classifiable	0	2	0	0	1	0	0	0	3
Total	23	88	8	14	111	38	18	37	337

Source: own editing based on results from IBM SPSS software (2024)

tenders in the period in increasing economic resilience in the SME sector, especially during the COVID-19 pandemic, and the emergence of financial resilience effectively applied under different business size. Family and direct industry competitors often operate with lower debt levels and conservative financial policies, which can provide them with favourable economic resilience in crisis situations. In contrast, market leaders tend to have larger financial reserves, which can contribute to effective resilience and help them weather difficult economic times.

The Chi2 test revealed no statistical relationship between industry and the economic resilience model. For more detailed observations, it is also necessary to characterise the economic resilience of each of the main activities during the period under review, as shown in Table 5. The descriptive statistics show that, among the main activities of the enterprises in the sample, the largest share of the total number of enterprises in the trade sector, even compared to the number of enterprises linked to this activity, was healthcare and social services (47.62%), which had the highest share of the sustained prosperity code (5) and therefore the highest economic resilience. If we also characterise positive hysteresis as a trend that also typically shows favourable economic resilience, we can see that trade and manufacturing are also highly represented in this classification, but if we look at the internal distribution of activities within each code, electricity and heat supply had the highest share (35.29%). Looking at the aggregated values of the exogenous shock of recession, decline and decline since COVID, we can see that the proportion of enterprises studied that would have been mostly or totally affected by the economic cycle between 2020 and 2022 was low (13.35%).

CONCLUSIONS

Based on our empirical research, we find that there is a correlation between the economic resilience of family enterprises within the Hungarian SME sector and their direct industry competitors and leading industry competitors, which is characterised by a weak relationship during crisis and recession. This result suggests that individual enterprises have followed the same trends and patterns in their economic resilience, but that there are differences in the determinants of this resilience, enterprise-specific characteristics over the period under study, such as financial management characteristics, enterprise size

and capital concentration, market power and bargaining power, and other determinants.

A possible direction for further research is an extended time series study with a larger sample and the construction of industry-specific economic resilience models that take into account the effects of inflation, enterprise and industry-specific market situations. Limitations of our research include the small number of items in the sample compared to the number of items in the population under study and the short time span of the study. We would like to extend these factors in our future research and also investigate new factors and phenomena. Our observations, as well as the model presented and applied in this study, will contribute to the expansion of the literature characterising and detailing economic resilience in the Hungarian context.

REFERENCES

- CHRISMAN, J. J. – SHARMA, P. – STEIER, L. P. – CHUA, J. H. (2013): The Influence of Family Goals, Governance, and Resources on Enterprise Outcomes. *Entrepreneurship Theory and Practice*, 37(6), 1249-1261. DOI: 10.1111/etap.12064
- GERSICK, K. – DAVIS, J. A. – HAMPTON, M. M. – LANSBERG, I. (1997): *Generation to Generation: Life Cycles of the Family Business*. Boston: Harvard Business School Press. ISBN: 9780875845555. 320 pages
- HANDLER, W. C. (1989): Methodological Issues and Considerations in Studying Family Businesses. *Family Business Review*, 2(3), 257-276. DOI: 10.1111/j.1741-6248.1989.00257.x
- KATONA, F. (2023): A marketing-controlling jellemzőinek vizsgálata a magyar családi vállalkozásoknál, különös tekintettel a Covid és az orosz-ukrán háborús konfliktus okozta gazdasági hatások tekintetében. *Controller Info*, 11(4), 7-11. DOI: 10.24387/CI.2023.4.2
- LEACH, P. (2016): *Family Enterprises: The Essentials*. Profile Books. ISBN-10: 1781255482. 256 pages
- LITTUNEN, H. – HYRSKY, K. (2000): The Early Entrepreneurial Stage in Finish Family and Nonfamily Enterprises. *Family Business Review*, 13(1), 41-54. DOI:10.1111/j.1741-6248.2000.00041.x
- MARTIN, R. (2011): Regional Economic Resilience, Hysteresis and Recessionary Shocks. *Journal of Economic Geography*, 12(1) 1-32. DOI: 10.1093/jeg/lbr019

- MILLER, D. – LE BRETON-MILLER, I. (2006): Family Governance and Enterprise Performance: Agency, Stewardship, and Capabilities. *Family Business Review*, 19(1), 73-87. DOI: 10.1111/j.1741-6248.2006.00063
- REID, R. – DUNN, B. – CROMIE, S. – ADAMS, J. (1999): Family Orientation in Family Enterprises: A Model and Some Empirical Evidence. *Journal of Small Business and Enterprise Development*, 6(1), 55-67. DOI: 10.1108/EUM00000000006668
- SAMBOWO, A. L. – HIDAYATNO, A. (2021): Resilience Index Development for the Manufacturing Industry Based on Robustness, Resourcefulness, Redundancy, and Rapidity. *International Journal of Technology*, 12(6). DOI: 10.14716/ijtech.v12i6.5229
- SHANKER, M. C. – ASTRACHAN, J. H. (1996). Myths and Realities: Family Businesses' Contribution to the US Economy—A Framework for Assessing Family Business Statistics. *Family Business Review*, 9(2), 107-123. DOI: 10.1111/j.1741-6248.1996.00107.x
- WEŃCŁAWSKI, J. – ŻUKOWSKA, B. (2019): Refreshing Typologies Based on Family Enterprises' Goals: The Perspective of "First-Generation Enterprises". *Central European Management Journal*, 27, 128-146. DOI:10.7206/cemj.2658-0845.6
- WILLIAMS JR, R. I. – PIEPER, T. M. – KELLERMANN, F. W. – ASTRACHAN, J. H. (2018): Family Enterprise Goals and their Effects on Strategy, Family and Organization Behavior: A Review and Research Agenda. *International Journal of Management Reviews*, 20, 63-82. DOI: 10.1111/ijmr.12167
- ZAHEDI, J. – SALEHI, M. – MORADI, M. (2022): Identifying and Classifying the Contributing Factors to Financial Resilience. *Foresight*, 24(2), 177-194. DOI: 10.1108/FS-10-2020-0102
- ZHANG, X. – WU, K. S. – HE, M. (2023): Concave-Convex Effect of Financial Resilience on Corporate Financial Performance: Quantile Regression Approach. *Humanities and Social Sciences Communications*. 10(1), 1-14. DOI: 10.1057/s41599-023-02169-w