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FINANCIAL DETERMINANTS OF ENTERPRISE RESILIENCE IN TRANSCARPATHIAN TRADE AND HOSPITALITY

Анотація. Дослідження присвячене виявленню та порівнянню вимірюваних фінансових умов, пов'язаних із резильєнтністю підприємств сфери торгівлі, а також підприємств, що надають послуги з тимчасового розміщування та займаються діяльністю у сфері громадського харчування в Закарпатті, упродовж 2021–2024 років. У центрі дослідження перебуває динаміка забезпеченості капіталом, короткострокової ліквідності та рентабельності у сфері оптової та роздрібної торгівлі, ремонту автотранспортних засобів і мотоциклів (G), а також у сфері тимчасового розміщування та громадського харчування (I), з особливою увагою до взаємозв'язків між структурою підприємств за їхнім розміром і розподілом обсягів реалізації. Інформаційну базу аналізу становлять офіційні дані Головного управління статистики у Закарпатській області. Дані щодо демографії суб'єктів господарювання охоплюють як



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підприємства, так і фізичних осіб-підприємців, тоді як фінансові показники стосуються виключно юридичних осіб усіх розмірних груп, у зв'язку з чим вони не можуть безпосередньо характеризувати фінансовий стан типового малого чи середнього підприємства. Отримані результати свідчать про те, що відновлення рентабельності та зміни фінансових резервів формували різні траєкторії адаптації у двох досліджуваних сферах діяльності. Результати дослідження можуть бути використані для вдосконалення управління оборотним капіталом і ліквідністю, а також для розроблення регіональних програм підтримки малих і середніх підприємств та транскордонного співробітництва. Для підприємств сфери торгівлі актуальними можуть бути зміцнення власного капіталу та контроль дебіторської заборгованості, тоді як у сфері тимчасового розміщування та громадського харчування важливого значення можуть набувати збереження резервів ліквідності, узгодження строків погашення фінансових зобов'язань і диверсифікація попиту. Відновлення рентабельності саме по собі не свідчить про повне забезпечення фінансової резильєнтності, оскільки у сфері торгівлі, попри відносно стабільну динаміку показника ліквідності, короткострокові зобов'язання продовжують відігравати значну роль, тоді як резерв ліквідності у сфері тимчасового розміщування та громадського харчування скоротився. Наукова новизна дослідження полягає у поєднанні структурних і фінансових індикаторів, а також у розмежуванні інтерпретації вимірюваних показників і контекстуальних механізмів у двох сферах діяльності прикордонного регіону, що характеризуються відмінними особливостями функціонування. Водночас описовий характер аналізу не дає змоги оцінити причинно-наслідковий вплив війни, тому досвід Угорщини використовується виключно як порівняльне тло. Загалом результати свідчать про те, що оцінювання фінансової резильєнтності не може ґрунтуватися лише на одному показнику або окремому аналізі рентабельності, а потребує комплексної інтерпретації структури капіталу, стану ліквідності, здатності генерувати дохід і структури підприємницького сектору.

Ключові слова: економічна резильєнтність, Закарпаття, торгівля, тимчасове розміщування та громадське харчування, коефіцієнт автономії, ліквідність.

JEL Classification: F15, L26, L83, M41, R58

Absztrakt. A kutatás a kárpátaljai kereskedelmi, valamint szálláshely-szolgáltató és vendéglátó vállalkozások rezilienciájával összefüggő mérhető pénzügyi feltételek feltárásával és összehasonlításával foglalkozik a 2021–2024 közötti időszakban. A vizsgálat középpontjában a tőkeellátottság, a rövid távú likviditás és a jövedelmezőség alakulása áll a nagy- és kiskereskedelem, gépjármű- és motorkerékpár-javítás (G), valamint a szálláshely-szolgáltatás és vendéglátás (I) ágazatában, különös tekintettel a vállalatméret szerinti szerkezet és az értékesítés megoszlásának összefüggéseire. Az elemzés adatbázisát a Kárpátaljai Megyei Statisztikai Főhivatal hivatalos adatai képezik. A vállalkozásdemográfiai adatok a vállalatokat és az egyéni vállalkozókat egyaránt tartalmazzák, a pénzügyi mutatók azonban kizárólag a jogi személyiséggel rendelkező vállalatok valamennyi méretcsoportjára vonatkoznak, ezért azok nem tekinthetők egy tipikus kis- és középvállalkozás pénzügyi helyzetének közvetlen leírására. Az eredmények alapján a jövedelmezőség helyreállása és a pénzügyi tartalékok változása a két vizsgált ágazatban eltérő alkalmazkodási pályát mutatott. A vizsgálat eredményei a forgótőke- és likviditásmenedzsment fejlesztésében, valamint regionális KKV-támogatási programok és határon átnyúló együttműködések kialakításában hasznosíthatók. A kereskedelmi vállalkozások esetében a saját tőke erősítése és a vevőkövetelések ellenőrzése, míg a szálláshely-szolgáltatás és vendéglátás területén a likviditási tartalékok megőrzése, a finanszírozási lejáratok összehangolása és a kereslet diverzifikálása lehet releváns. A jövedelmezőség helyreállása önmagában nem igazolja a pénzügyi reziliencia teljes körű fennállását, mivel a kereskedelemben a likviditási mutató viszonylag stabil alakulása mellett továbbra is jelentős szerepet töltenek be a rövid lejáratú kötelezettségek, míg a szálláshely-szolgáltatás és vendéglátás likviditási

tartaléka beszűkült. A kutatás újdonsága a strukturális és pénzügyi indikátorok összekapcsolásában, valamint a mért mutatók és a kontextuális mechanizmusok elkülönített értelmezésében rejlik egy határ menti régió két, eltérő működési sajátosságokkal rendelkező ágazatában. A leíró elemzés ugyanakkor nem teszi lehetővé a háború oksági hatásának becslését, ezért a magyarországi tapasztalatok kizárólag összehasonlító háttérként szolgálnak. Az eredmények összességében arra utalnak, hogy a pénzügyi reziliencia értékelése nem vezethető vissza egyetlen mutató vagy a jövedelmezőség önálló vizsgálatára, hanem a tőkeszerkezet, a likviditási helyzet, a jövedelemtermelő képesség és a vállalkozási struktúra együttes értelmezését igényli.

Kulcsszavak: gazdasági reziliencia, Kárpátalja, kereskedelem, szálláshely-szolgáltatás és vendéglátás, sajáttőke-arány, likviditás.

Abstract. The study examines and compares the measurable financial conditions associated with the resilience of enterprises operating in the trade, accommodation, and food service sectors in Transcarpathia over the period 2021–2024. The analysis focuses on the dynamics of capital adequacy, short-term liquidity, and profitability in wholesale and retail trade and the repair of motor vehicles and motorcycles (G), as well as in accommodation and food service activities (I), with particular attention to the relationship between enterprise size structure and the distribution of sales. The analysis is based on official data from the Main Department of Statistics in Transcarpathia. The enterprise demography data cover both enterprises and individual entrepreneurs, whereas the financial indicators refer exclusively to legally incorporated enterprises across all size categories. Consequently, these indicators should not be interpreted as directly representing the financial position of a typical small or medium-sized enterprise. The findings indicate that the recovery of profitability and changes in financial reserves followed different adjustment trajectories in the two sectors under investigation. The results of the study may contribute to improving working capital and liquidity management, as well as to the development of regional SME support programmes and cross-border cooperation initiatives. For enterprises in the trade sector, strengthening equity capital and improving the monitoring of trade receivables may be particularly relevant, whereas in accommodation and food service activities, preserving liquidity reserves, aligning financing maturities, and diversifying demand may be of particular importance. The recovery of profitability alone does not demonstrate the full restoration of financial resilience, as short-term liabilities continue to play a significant role in the trade sector despite the relatively stable development of its liquidity ratio, while liquidity reserves in accommodation and food service activities have narrowed. The novelty of the study lies in integrating structural and financial indicators and in distinguishing between the interpretation of measured financial indicators and contextual mechanisms across two sectors with different operating characteristics in a border region. At the same time, the descriptive nature of the analysis does not permit an assessment of the causal effect of the war; therefore, evidence from Hungary is used solely as a comparative background. Overall, the findings suggest that the assessment of financial resilience cannot be reduced to a single indicator or to an isolated examination of profitability, but requires an integrated interpretation of capital structure, liquidity position, income-generating capacity, and the structure of the enterprise sector.

Keywords: economic resilience, Transcarpathia, trade, accommodation and food service activities, equity ratio, liquidity.

Problem description. Small and medium-sized enterprises occupy a paradoxical position in the economies of Central and Eastern Europe. They account for the overwhelming majority of active business units and perform essential employment, service and local-market functions, yet they usually operate with less capital, weaker managerial specialisation and narrower access to external finance than large corporations. Pataki et al. [1] show that the category itself is internally heterogeneous:



micro-enterprises and self-employed entrepreneurs differ substantially from medium-sized firms in management capacity, innovation and value creation. This distinction becomes decisive during a polycrisis. The COVID-19 shock, energy-price volatility, supply-chain disruption and Russia's full-scale war against Ukraine did not produce one uniform SME response; outcomes varied by balance-sheet structure, sector, location and institutional environment. Evidence from emerging Europe confirms that tourism dependence, banking conditions and exposure to war-related uncertainty materially affect firm survival [2]. The empirical problem is therefore to identify measurable financial conditions associated with continuity and recovery without treating all SMEs, sectors or regions as equivalent.

The Hungarian-Ukrainian case is especially relevant because it links an EU member state to a candidate country at an external Schengen border. The relationship includes formal trade and investment, energy and transport corridors, cross-border labour and family networks, minority institutions, tourism, and EU-supported territorial cooperation. The border therefore functions simultaneously as a barrier, a filter and a development resource. Earlier research identified the peripheral position of the adjoining regions and the administrative effects of EU enlargement [3], while later empirical work found that local interdependence and social cohesion could preserve cooperation even when interstate political relations deteriorated [4]. The wartime environment adds a further layer: Ukrainian firms face physical destruction and operational discontinuity, whereas Hungarian firms are affected mainly through demand, energy, trade and policy channels. In the present study, however, the Hungarian side is an interpretive and policy context; the quantitative evidence is limited to Transcarpathia on the Ukrainian side of the border.

Analysis of recent research and publications. Organizational resilience is variously conceptualised as a process, a capability and an outcome. Duchek [5] distinguishes anticipation, coping and adaptation, while Herbane [6] and Saad et al. [10] demonstrate that SME resilience depends on planning, resources, networks and the possibility of strategic renewal. Hillmann and Guenther [7] warn that the construct loses explanatory value when it is not operationalised, and the reviews by Korber and McNaughton [8] and Williams et al. [9] support a process-based interpretation that separates exposure, response and recovery. The regional and sectoral literature establishes further components of the problem. Border studies identify double peripherality, persistent local cohesion and the importance of institutionalised cooperation instruments [3; 4; 11]. Research on wartime financial reports shows that armed conflict enters accounts through impairment, provisions, risk disclosure and audit evidence [12]. Tourism studies concerning Transcarpathia and Hungary emphasise diversification, management, public support, local cooperation and territorial adaptability [13-15]. The remaining gap is a transparent link between the resilience concept and observable financial indicators for comparable sectors over time; the present study addresses that gap for Transcarpathia in 2021-2024.

Goals of the article. The aim of the paper is to identify the observable financial conditions associated with enterprise resilience in Transcarpathia and to compare their development in trade and hospitality between 2021 and 2024. Three research questions guide the analysis. First, how were active entities and enterprise sales distributed by size in 2024? Second, how did capitalisation, short-term liquidity and profitability change in KVED sections G and I between the pre-full-scale-war year 2021 and 2024? Third, what sector-specific policy implications follow for SMEs and cross-border development? Resilience is defined as the capacity to maintain critical functions, absorb disruption, restore earnings and adapt the operating model [5-10]. Four empirical dimensions are used: structural capacity, represented by enterprise demography and sales by size; loss-absorbing capacity, represented by the equity ratio; short-term payment capacity, represented by the current ratio; and earnings continuity or recovery, represented by operating and total-activity profitability. Positive profitability, a current ratio at or above unity and a stable or strengthening equity ratio are treated as favourable diagnostic signals. They are not combined into a composite index and are not interpreted as universal firm-level thresholds.

Methods and methodology. The empirical component uses official annual tables of the Main Department of Statistics in Zakarpattia Oblast for 2021-2024 [16-28]. The 2024 business-demography tables distinguish legal-entity enterprises from individual entrepreneurs (FOP) and separate large, medium, small and micro-enterprises. Balance-sheet and profitability tables cover legal-entity enterprises of all sizes and do not include FOPs; the calculated ratios therefore describe aggregate sector positions rather than SMEs alone or a typical enterprise. Two KVED-2010 sectors are examined: wholesale and retail trade and repair of motor vehicles and motorcycles (section G), selected because it is the region's largest business domain and is linked to cross-border goods flows, and accommodation and food service activities (section I), selected because it is tourism-facing, mobility-sensitive and fixed-asset-intensive. The equity ratio is equity divided by total assets, and the current ratio is current assets divided by current liabilities. Operating and total-activity profitability are taken from the corresponding official tables. The 2021 balance values were cross-checked against the published balance totals before ratio calculation.

Peer-reviewed English-, Ukrainian- or Hungarian-language studies published between 2004 and 2025 were retained when they directly supported the conceptual framework, regional context or selected sectors. The empirical method is comparative descriptive trend and ratio analysis, not an econometric causal test. Its limitations are the aggregate nature of the data, wartime reporting breaks, the absence of firm-level panels and the absence of matched Hungarian sectoral observations. Consequently, changes after 2021 are described as temporal associations and the Hungarian and cross-border material is used only as context.

Main results of the study. The economic geography of the Hungarian-Ukrainian border was shaped by the collapse of state socialism and the disintegration of the Council for Mutual Economic Assistance. Border regions on both sides entered the



transition with weak infrastructure, limited local capital and a production structure dependent on external centres. The closure of branch plants reduced industrial employment and intensified out-migration. Baranyi [3] interpreted this as a double peripherality: the regions were distant from national growth poles and were also divided by a state border whose administrative significance increased after Hungary joined the European Union in 2004. Schengen rules improved the security and predictability of the EU external border but also raised the transaction costs of small-scale trade, commuting and personal mobility.

Cross-border economic relations nevertheless proved durable because they rest on more than formal diplomacy. Family, linguistic, educational, municipal and business networks connect Szabolcs-Szatmár-Bereg County with Transcarpathia. Semi-structured interviews conducted by Linc [4] showed that local cooperation could remain functional despite political disputes between the two capitals. This finding is important for economic policy: central political tension can increase uncertainty, but it does not automatically eliminate local trust or the practical need for cooperation. EU territorial instruments, Euroregions and European Groupings of Territorial Cooperation provide governance channels through which municipalities, chambers and development agencies can coordinate projects. Fejes and Ocskay [11] emphasise, however, that such instruments work only when legal and administrative obstacles are addressed rather than merely financed through isolated projects.

War affects enterprises through several simultaneous channels: physical loss, interrupted production, displaced labour, exchange-rate risk, disrupted logistics, insurance exclusion, energy insecurity and declining predictability of demand. These channels are unevenly distributed. Firms in safer western regions may receive internally displaced consumers and relocated enterprises, while firms near combat zones may lose both assets and markets. Nowinska and Olesen [29] demonstrate that investment does not necessarily cease as military risk rises; some firms continue investing because of expected returns, strategic commitment or solidarity. Yet continued investment should not be confused with an absence of risk. It depends on credible institutions, information, financing and the possibility of adapting operations.

The corporate-survival evidence for emerging Europe is similarly nuanced. Kočenda and Iwasaki [2], using more than 59,000 firms, find that the pandemic and the Russo-Ukrainian war amplified exit risks, while banking conditions and regional characteristics affected the probability of survival. For SMEs, resilience therefore has at least four dimensions: operational continuity, financial liquidity, organisational adaptability and reporting credibility. A firm may maintain sales but remain fragile if it finances inventories almost entirely with short-term liabilities. Conversely, a temporarily loss-making hospitality firm may survive if it has sufficient patient capital and can redirect capacity towards domestic tourists, displaced persons, long-stay guests or complementary services.

Structure and performance of Ukrainian SMEs. Table 1 reveals a simultaneous contraction in the number of active enterprises and a strong nominal expansion of

realised sales between 2021 and 2024. The number of active legal-entity enterprises decreased from 6,572 to 5,370, representing an 18.29% decline, while their total realised sales increased from UAH 86.41 billion to UAH 175.21 billion, or by 102.77% [24; 25; 28]. The enterprise population remained strongly dominated by small and micro-enterprises, although the share of small firms declined from 95.56% to 94.92%, and that of micro-enterprises from 84.68% to 81.79%. The distribution of sales changed more markedly. Medium-sized enterprises continued to generate the largest share of sales, but their contribution decreased from 59.32% in 2021 to 48.61% in 2024. By contrast, the share generated by large enterprises rose from 10.08% to 27.91%. The sales share of small enterprises fell from 30.60% to 23.48%, while that of micro-enterprises declined from 10.91% to 7.42%. Consequently, the combined share of large and medium-sized enterprises increased from 69.40% to 76.52%, indicating a growing concentration of nominal sales among larger firms. These figures do not diminish the economic importance of micro- and small enterprises, whose contributions to employment, household income, local services, market entry and flexibility are not fully captured by aggregate sales. Moreover, as the reported values are expressed in current prices, the increase in sales cannot be interpreted as equivalent real growth without adjustment for inflation.

Table 1

Active enterprises and realised sales by enterprise size in Transcarpathia, 2021 and 2024

Year	Enterprise size	Active units	Share of units (%)	Realised sales (UAH million)	Share of sales (%)
2021	Large enterprises	4	0.06	8,708.1	10.08
	Medium-sized enterprises	288	4.38	51,255.3	59.32
2021	Small enterprises	6,280	95.56	26,442.8	30.60
	of which: micro-enterprises	5,565	84.68	9,423.8	10.91
	Total legal entities	6,572	100.00	86,406.1	100.00
2024	Large enterprises	8	0.15	48,894.1	27.91
	Medium-sized enterprises	265	4.93	85,169.3	48.61
	Small enterprises	5,097	94.92	41,142.3	23.48
	of which: micro-enterprises	4,392	81.79	12,995.0	7.42
	Total legal entities	5,370	100.00	175,205.6	100.00

* Source: own calculations based on official enterprise-size tables of the Main Department of Statistics in Zakarpattia Oblast for 2021 and 2024 [24; 25; 28].

The changing concentration pattern has mixed implications for enterprise resilience. Medium-sized firms retain advantages arising from scale, specialised management and a broader revenue base, while the growing role of large enterprises may provide anchor demand and more structured supplier relationships. At the same time, increasing dependence on a relatively limited group of larger firms can amplify regional exposure to firm-specific, supply-chain and credit shocks. The decline in the number of micro-enterprises from 5,565 to 4,392 is consistent with a process of



consolidation, but the aggregate tables cannot distinguish between business exit, temporary inactivity, reclassification or other changes in the statistical population. Policy should therefore combine universal access with size-sensitive instruments: simple digital public services, liquidity support and continuity-planning tools for micro-enterprises; guarantees and co-investment for viable small and medium-sized growth firms; and export, standards and supplier-development assistance for enterprises capable of cross-border expansion. Measures connecting micro- and small enterprises to larger regional value chains should be accompanied by supplier diversification to prevent excessive dependence on a small number of anchor firms. These conclusions concern enterprise-size groups, the available aggregate data do not reveal the survival probability or financial position of an individual enterprise.

Financial reporting in crisis and war. Financial reporting is not treated here as an independently estimated determinant of resilience. Its role is narrower: credible accounts make the measured liquidity, capitalisation and profitability signals usable by owners, lenders and public authorities. Under IAS 1, management must assess whether the going-concern basis remains appropriate and disclose material uncertainties [30]. In a sector whose current ratio is close to unity, that assessment should test sales, collection periods, energy supply, transport routes, staff availability and refinancing rather than rely on an unchanged twelve-month forecast.

A practical SME approach uses a base case, a downside case and a severe but plausible case linked to monthly cash flows, covenant headroom and minimum liquidity. This directly complements the current ratio: the aggregate ratio is a year-end stock measure and cannot show intra-year cash shortfalls, inventory quality or the concentration of receivables. Research on European annual reports after the invasion confirms that war-related effects also enter financial statements through impairment, provisions, risk disclosures and audit evidence [12]. In the present article, these mechanisms explain how financial information may support resilience decisions; their effect is not measured statistically.

Impairment and expected-credit-loss estimates can materially alter both equity and current assets, and therefore the two ratios used in the sectoral comparison. Damaged or inaccessible inventories may require write-down, receivable risk may rise and fixed assets may have lower recoverable amounts. Under IFRS 9, expected credit losses must incorporate forward-looking information [30]. The ratios should consequently be interpreted together with data quality and accounting assumptions, not as self-sufficient proof of resilience.

Digital records, cloud backup, off-site document retention and redundant authorisation procedures reduce the risk that operational disruption destroys the evidence needed for financing, insurance or public support. These measures are especially relevant to micro and small firms with limited administrative redundancy. They are presented as practice implications derived from the reporting framework, not as variables tested by the aggregate statistical analysis.

IAS 10 further requires a distinction between adjusting and non-adjusting events after the reporting period [30]. For the sectors analysed here, a short closing memorandum that links major post-balance-sheet events to liquidity scenarios, impairment assumptions and responsible decision-makers would improve consistency. This recommendation does not imply that the statistical series demonstrates a causal effect of reporting quality on resilience.

Sectoral financial analysis. Trade and motor-vehicle repair form the largest business domain in Transcarpathia. In 2024, 22,151 active entities were recorded in the sector, including 20,966 FOPs and 1,185 legal-entity enterprises. Enterprise sales amounted to UAH 47,410.2 million; medium-sized enterprises generated 60.7%, while small enterprises generated 39.3%, including 13.0% from micro-enterprises [22; 25]. Operating profitability was 29.6%, 4.1%, 25.7% and 27.0% in 2021-2024, while total-activity profitability was 20.0%, -3.1%, 9.4% and 17.2% [16-20]. The 2022 deterioration and subsequent recovery are consistent with exposure to wartime disruption, but the descriptive series cannot isolate a causal war effect.

At the end of 2024, aggregate trade-sector assets were UAH 21,878.4 million, including UAH 17,265.6 million in current assets and UAH 4,594.7 million in non-current assets; UAH 18.2 million was classified as non-current assets held for sale. Equity amounted to UAH 4,558.3 million, long-term liabilities to UAH 1,457.2 million and current liabilities to UAH 15,862.6 million [27]. The 2024 equity and current ratios are calculated below.

$$ER_G = \frac{\text{Equity}}{\text{Total assets}} \times 100\% = \frac{4,558,346.7}{21,878,428.3} \times 100\% = 20.83\% \quad (1)$$

$$CR_G = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{17,265,562.7}{15,862,643.8} = 1.09 \quad (2)$$

The trade equity ratio improved from 16.10% in 2021 to 17.11% in 2022, 17.87% in 2023 and 20.83% in 2024. The current ratio remained comparatively stable at 1.08, 1.06, 1.07 and 1.09 [17; 19; 21; 27]. This combination indicates a gradual strengthening of the aggregate equity cushion, while short-term payment capacity continued to depend on the quality and speed of conversion of current assets. The claim is sector-level, aggregate ratios do not describe a typical SME, and the available tables do not disclose inventory turnover or receivable collection by firm size. Trade resilience is therefore interpreted as an association between restored profitability, stable liquidity and improved capitalisation, not as proven rapid working-capital rotation.

Accommodation and food service activities. In 2024, accommodation and food services comprised 3,500 active entities in Transcarpathia, of which 3,324 were FOPs and 176 legal-entity enterprises. Enterprise sales amounted to UAH 1,131.3 million; medium-sized enterprises generated 38.4% and small enterprises 61.6%, including 8.0% from micro-enterprises [22; 25]. Operating profitability was -6.6%, 10.6%, 7.9% and



10.1% in 2021-2024, while total-activity profitability was -6.2%, 8.9%, 5.9% and 9.0% [16; 18; 20; 26]. The series therefore shows a move from loss in 2021 to positive profitability from 2022 onward, without establishing which individual policy or market factor caused the change.

At the end of 2024, aggregate hospitality assets were UAH 1,197.2 million, including UAH 767.5 million in non-current assets and UAH 429.6 million in current assets. Equity reached UAH 758.4 million, long-term liabilities UAH 9.0 million and current liabilities UAH 429.7 million [27]. The corresponding 2024 ratios are:

$$ER_I = \frac{758,401.2}{1,197,156.5} \times 100\% = 63.35\% \quad (3)$$

$$CR_I = \frac{429,619.3}{429,735.3} = 1.00 \quad (4)$$

The hospitality equity ratio remained much higher than in trade but declined from 72.48% in 2021 to 68.80% in 2022, 66.30% in 2023 and 63.35% in 2024. Over the same period, the current ratio narrowed from 1.23 to 1.09, 1.08 and 1.00 [17; 19; 21; 27]. The sector thus restored positive profitability while its short-term liquidity margin weakened and its fixed-asset share remained above 64% in 2024. This does not justify a claim of acute sector-wide insolvency; it indicates that further growth financed by short-term liabilities would reduce the remaining buffer. The appropriate response is patient capital, maturity matching, occupancy and demand diversification, and monthly cash-flow monitoring.

Table 2
Comparative financial indicators of trade and hospitality in Transcarpathia, 2021–2024

Indicator	2021	2022	2023	2024
<i>Panel A. Trade (section G)</i>				
Non-current assets / total assets (%)	20.19	20.51	19.43	21.00
Current assets / total assets (%)	79.69	79.36	80.46	78.92
Equity ratio (%)	16.10	17.11	17.87	20.83
Current liabilities / total assets (%)	73.53	74.79	75.07	72.50
Current ratio	1.08	1.06	1.07	1.09
Operating profitability (%)	29.6	4.1	25.7	27.0
Total-activity profitability (%)	20.0	-3.1	9.4	17.2
<i>Panel B. Accommodation and food service activities (section I)</i>				
Non-current assets / total assets (%)	69.83	68.16	64.45	64.11
Current assets / total assets (%)	30.15	31.81	35.54	35.89
Equity ratio (%)	72.48	68.80	66.30	63.35
Current liabilities / total assets (%)	24.42	29.08	32.92	35.90
Current ratio	1.23	1.09	1.08	1.00
Operating profitability (%)	-6.6	10.6	7.9	10.1
Total-activity profitability (%)	-6.2	8.9	5.9	9.0

* Source: own calculations based on the annual profitability and balance-sheet tables of the Main Department of Statistics in Transcarpathia [16–21; 26–27].

Research on Transcarpathia confirms that tourism-sector vulnerability is not solely a matter of aggregate demand. Rural tourism enterprises face informality, weak marketing, limited management systems and insufficient diversification. Based on a survey of rural tourism operators, Kahanets-Havrylko and Hushtan [15] identify diversification, improved management and marketing, European practice transfer and de-shadowing as central resilience mechanisms. Hushtan and Korsak [14], using official statistics and interviews with hotel and restaurant businesses, similarly stress cooperation between SMEs, local communities and public authorities. These studies support the 2021-2024 diagnosis, positive sector profitability does not remove the need for liquidity planning, market development and institutional capacity.

The Hungarian tourism sector also experienced a severe pandemic shock, but its recovery benefited from strong domestic demand, fiscal support, developed financial intermediation and a broader territorial product structure. Gyurkó [13] shows that Hungarian tourism competitiveness remained centred on Budapest but that rural regions demonstrated adaptability through domestic and nature-based tourism. This evidence is relevant as a contextual benchmark for Transcarpathia because it suggests that resilience can be strengthened by linking accommodation to local food, culture, health, active tourism and environmental assets. It is not a matched quantitative comparison with the Transcarpathian financial series, and no claim is made that a Hungarian programme can be transferred mechanically.

The four-year Transcarpathian series provides the temporal comparison required for a cautious pre-war and wartime diagnosis. Trade profitability fell sharply in 2022 and recovered in 2023-2024, while hospitality moved from a loss in 2021 to positive profitability from 2022. At the same time, trade capitalisation improved and hospitality liquidity narrowed. These patterns are consistent with different sectoral adjustment paths, but the absence of firm-level panels, a counterfactual region and matched Hungarian observations prevents causal attribution. The 2024 counts include FOPs, whereas the balance-sheet ratios refer only to legal-entity enterprises; mixing those populations would overstate what the indicators show.

Transcarpathia and cross-border economic development. Transcarpathia's location beside four EU member states gives it potential as a logistics, service and tourism gateway, but border location alone does not generate development. Infrastructure, administrative capacity, legal predictability and local enterprise networks determine whether proximity becomes an asset. Berghauer [31] shows that travel across the Hungarian-Ukrainian border has historically combined visiting friends and relatives (VFR), shopping and other economic motivations. These flows are embedded in ethnic and family ties and therefore differ from conventional destination tourism. Their resilience is valuable, yet heavy reliance on informal or price-difference-driven mobility can reproduce low-value peripheral activity.

A more resilient model would convert social proximity into formal business cooperation. Examples include joint tourism routes, bilingual digital marketing, supplier



databases, quality certification, cross-border vocational training and cooperation between destination management organisations. Local Hungarian institutions can reduce information and trust costs, but programmes should remain open, transparent and economically justified. Enterprise support should be assessed not only by the number of grants awarded but by survival, productivity, formal employment, sales growth, tax compliance, supplier linkages and environmental performance. These are proposed evaluation criteria; they are not outcomes measured by the present aggregate dataset.

EU cross-border programmes create a framework for joint infrastructure, tourism, environmental and business-development initiatives. Their greatest value lies in repeated cooperation: partners learn common procurement, reporting, planning and evaluation practices. Fejes and Ocskay [11] describe the evolution from individual projects towards more institutionalised tools such as Euroregions and EGTCs. For the Hungarian-Ukrainian border, the practical priority is to preserve functioning professional networks during wartime and prepare reconstruction-ready projects. Their business effects should be evaluated against the sector indicators used in this study rather than inferred from project completion alone.

Small-business platforms and business-bridge initiatives can contribute by reducing search costs and making partners visible, but the platform itself is not the outcome. Success requires verified company profiles, sectoral brokerage, legal and customs advice, multilingual documentation, follow-up mentoring and measurable transactions. Capital grants can stabilise family firms, yet durable effects depend on complementary training, market access and cooperation with local government and Ukrainian institutions. Linc's [4] findings on local cohesion suggest that these horizontal relationships may remain productive even when high-level political dialogue is strained. The present study treats that institutional resilience as context, not as a statistically estimated financial determinant.

Cross-border logistics as a contextual risk. Energy, transport and border infrastructure affect the two analysed sectors through delivery reliability, inventory costs, customer mobility and investment risk. However, the available enterprise tables do not measure pipeline exposure, sanctions, route diversification or firm-level energy use. These issues are therefore treated as contextual transmission channels, not as empirically estimated determinants of the reported ratios. For trade, the immediate measurable concern is the high share of current liabilities; for hospitality, it is the narrowing liquidity margin and dependence on access and demand.

A focused cross-border policy implication follows. Border-crossing capacity, interoperable rail and road links, digital customs and reliable energy supply should be evaluated through observable outcomes such as delivery times, inventory disruption, enterprise sales, occupancy, profitability and survival. This keeps infrastructure recommendations connected to the article's financial analysis and avoids drawing conclusions about specific transit systems that the dataset cannot test.

The findings reveal three sectorally grounded asymmetries. The first is a size asymmetry, micro and small enterprises dominate numerically, but medium-sized firms

generate the largest share of enterprise sales. The second is a financial asymmetry, trade maintained a current ratio near 1.1 and improved its equity ratio after 2021, whereas hospitality retained much stronger capitalisation but saw its current ratio fall to 1.00. The third is a recovery asymmetry: trade profitability collapsed in 2022 and then rebounded, while hospitality moved from loss in 2021 to positive profitability from 2022. These patterns support differentiated policy, but they do not constitute a quantitative Hungary-Ukraine comparison or a causal estimate of war effects.

The analysis also clarifies the relationship between financial reporting and economic policy. Reliable going-concern assessments, impairment estimates and liquidity data help support providers distinguish temporary distress from structural insolvency, but the aggregate statistics do not measure reporting quality. Proportionality is therefore essential: simplified digital records and standardised cash-flow tools for micro-firms, with more detailed scenario analysis and governance requirements for larger enterprises and recipients of substantial public funds. This recommendation follows from the indicator framework and IFRS context, not from an estimated reporting coefficient.

The sectoral evidence supports separate recommendations. Trade enterprises should strengthen retained earnings and equity, monitor inventory ageing and receivable collection, stress-test supplier and customer concentration, and avoid converting a stable current ratio into excessive short-term leverage. Accommodation and food-service enterprises should protect a minimum liquidity buffer, match liability maturities to fixed-asset cash flows, use patient capital where viable and diversify occupancy through domestic, VFR, health, active and long-stay segments. Cross-border programmes can complement both sectors through customs simplification, verified supplier brokerage, destination marketing and workforce development, but programme success should be measured by transactions, sales, profitability, survival and local procurement rather than grant counts alone [13-15].

Conclusions and prospects for further research. The 2021-2024 evidence shows that enterprise resilience in Transcarpathia cannot be inferred from one indicator. It is associated with the interaction of firm-size structure, sectoral asset composition, equity, short-term liquidity and the capacity to restore profitability. In 2024, medium-sized enterprises generated 48.61% of enterprise sales despite representing 4.93% of enterprises. Trade improved its equity ratio to 20.83% and recovered total-activity profitability to 17.2%, while maintaining a current ratio of 1.09. Hospitality restored positive profitability, but its current ratio narrowed to 1.00 and its equity ratio declined to 63.35%.

Four policy priorities follow. First, trade support should combine equity strengthening with working-capital controls, supplier diversification and receivable monitoring. Second, hospitality requires liquidity buffers, maturity matching, patient capital and demand diversification rather than additional short-term debt alone. Third, digital accounting, backup and scenario-based cash-flow planning should be proportionate to enterprise size and linked to financing decisions. Fourth, cross-border



programmes should connect logistics, customs, supplier brokerage, tourism and workforce measures to verifiable enterprise outcomes. These recommendations correspond to both analysed sectors and remain within the evidential scope of the study.

The scientific novelty of the study is the explicit operationalisation of resilience through a coherent set of structural, capitalisation, liquidity and profitability indicators and their application to two contrasting sectors of a border region over a pre-war and wartime sequence. A second contribution is the separation of measured financial determinants from contextual mechanisms such as Hungarian experience, cross-border institutions, reporting practices and infrastructure. This distinction prevents contextual evidence from being presented as a quantified bilateral result and provides a replicable framework for future matched comparisons.

The limitations define the next research stage. The published balance and profitability tables aggregate legal-entity enterprises of all sizes and therefore do not describe the median or typical SME, FOPs are available only in the demographic and sales tables. The four-year descriptive series cannot isolate the causal effect of war, inflation, support programmes or reporting quality. Future work should use matched Hungarian and Ukrainian firm-level panels for the same NACE/KVED sectors, report medians by size class and test whether equity, liquidity, digitalisation and grant receipt predict survival and growth. Until such data are available, the present findings should be read as a regional sector diagnosis and a basis for testable hypotheses.

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