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Metrics of Management Effectiveness: Decision-Making in Enterprises During Crisis Periods

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Abstract:
This study develops a comprehensive system of metrics to evaluate the effectiveness of management decisions during crisis periods, with a specific focus on enterprises in the transitional economy of Ukraine. Under conditions of extreme market volatility and systemic shocks, including

wartime challenges, traditional performance indicators often fail to capture the nuances of organizational resilience. Using a structural-analytical approach, this paper identifies key performance indicators (KPIs) that prioritize liquidity maintenance, resource optimization, and strategic flexibility over short-term profit maximization.

The research establishes that the adoption of adaptive management metrics serves as an internal structural reform, allowing firms to navigate the transition from crisis survival to long-term stability. By integrating qualitative and quantitative measures of decision-making efficiency, the proposed framework provides a roadmap for safeguarding an enterprise's financial health during periods of intense uncertainty. The findings demonstrate that effective crisis-period metrics are a prerequisite for maintaining corporate solvency and supporting national economic resilience. The study concludes with practical recommendations for managers to implement these metrics as part of a broader strategy for financial sustainability in transitional and conflict-affected environments.

Keywords: management decisions; crisis management; structural reforms; transitional economies.

JEL Classification: G32, M21, H12, P52.

Introduction

Under acute crisis conditions, the effectiveness of managerial decisions plays a fundamental role in an enterprise's ability to manage during these difficult times (Chervak, 2025; Lelyk et al.,2022). Ukrainian enterprises operate in a turbulent business climate, marked by sustained economic uncertainty since 2014 (Hrebeshkova et al., 2025). This recent full-scale invasion has greatly intensified this instability. In such conditions, the consequences of making good or poor decisions are significantly amplified (Kostruba, 2025). Businesses are facing enormous difficulties, including disruptions to supply chains, damage to critical infrastructure, and the massive relocation of labour forces (Ma & Chang, 2024). They also face massive currency shocks and market destabilization (Sternberg et al., 2021). In such challenging situations, managers must make key choices: either change strategy or manage urgent problems (Schuurman et al., 2022). These decisions play a significant role in whether the organization survives and recovers. Good decisions have the power to fend off existential threats, save precious capital and establish a solid commercial base for long-term stability (Norris et al., 2020). Whereas, bad ones can spell collapse within days. When firms stay afloat by using measures and judgment that are more effective during times of crisis, they contribute to supporting the national tax base, diminishing pressure on the bank system, and stabilizing employment, and firm-level resilience will become macro-level financial sustainability. Hence, it is essential to understand and strengthen the effectiveness of these choices to prevent damage to Ukraine's economic structure.

Against the critical necessity of managerial decision–making in crises, there is a distinct lack of measuring the effectiveness of such purpose-specific metrics (Issah et al., 2023; Obłój & Voronovska, 2024). Standard metrics typically assume a level of stability, predictability, and data availability that is often not present during events such as war or deep economic collapse (Feuerstahler, 2022). Instead of perceiving such crisis-related metrics merely as a short-term reaction, this study represents the new metric systems as a way of structural reformation of enterprise governance. The shift to adaptive and resilience-oriented metrics in the Ukrainian context, where companies are becoming more demanded to meet the transparency, accountability and performance monitoring standards of the EU, is an inevitable step towards modern corporate governance.

In this view, crisis-period measurement is not only a reaction but is a long-term institutional change that helps both firms to survive and regulatory convergence (Majid Awan et al., 2024). They may misperceive the particular dynamics, extreme time pressures, limited information, and high uncertainty that are conditions for effective leadership. In addition, there is little research on what metrics are most relevant to an enduring crisis for Ukrainian businesses (Alkema et al., 2024; Opatska et al., 2024). In the absence of localized, context-sensitive frameworks, managers are left without a well-calibrated compass to guide their crisis responses. They also lack metrics by which to benchmark best practices applicable to their situation (Zheng et al., 2023).

This study is therefore highly relevant and apt. Ukrainian enterprises operate in a uniquely challenging and persistent crisis mode, requiring immediate and practical insights (Alkema et al., 2024). Ongoing issues, including hyperinflation, currency devaluation, constrained access to capital, fragmented logistics, energy insecurity, and an unpredictable regulatory landscape, persist. These challenges demand a decision-making framework tailored to these specific realities (Huang et al., 2025). Understanding how managers can and should measure the effectiveness of their crisis decisions is not merely an academic exercise. It is an urgent operational necessity for sustaining businesses (Beninger & Robson, 2025; Vovchak et al., 2019). It also plays a key role in safeguarding jobs. Furthermore, it contributes to national economic resilience during and after conflict (Van Thana & Tri, 2025). Providing evidence-based guidance on contextually appropriate metrics offers tangible value for practitioners striving to steer their organizations through this protracted adversity (Srivastava & Tang, 2022).

The objective of this study is to systematically identify and evaluate the core performance metrics employed to assess managerial decision effectiveness within Ukrainian enterprises in the post-2022 crisis environment. The research adopts an analytical perspective, focusing on metric prioritization, functional impact, and contextual determinants.

To operationalize this objective, the study addresses the following research questions:

RQ1: What categories of performance metrics (financial, operational, and qualitative) are predominantly utilized by Ukrainian enterprise managers to evaluate decision effectiveness under crisis conditions?

RQ2: What is the functional role of these metrics in shaping subsequent managerial decision-making processes?

RQ3: To what extent do contextual variables (e.g., sectoral affiliation, firm size, and crisis-specific disruptions such as supply chain instability or exchange rate volatility) influence the selection and application of effectiveness metrics?

1. Research Background

The evaluation of management decision effectiveness generally uses financial, operational, and qualitative metrics (Malyarets et al., 2020; Rybalchenko et al., 2022). Zarzycka & Krasodomska (2022) found that financial measurements remain key, focusing on quantifiable results that affect profits. Ng Corrales et al. (2022) Explored the idea that operational metrics measure internal process efficiency and effectiveness. Spash (2021) studied that enterprise crises, such as war, economic collapse, or pandemics, the usual metrics are difficult to use.

There is a lack of research on managerial decision efficacy indicators in crisis circumstances, particularly in Ukraine's unique and protracted crisis (Opatska et al., 2024). Crisis management, organizational resilience, and performance measurement are well-documented (Yağmur & Myrvang, 2023), but few studies (Kamissoko et al., 2014; Obłój & Voronovska, 2024) explicitly link managerial decision processes to specific evaluation metrics during active, large-scale crises, such as war. Field, Cui et al. (2023) Investigated Ukrainian research that focused on macroeconomic repercussions, sectoral vulnerabilities, and the difficulties of conducting business in conflict and institutional fragility after 2014. The measurements used by Ukrainian managers to evaluate crisis-period decisions are rarely studied (Zhang et al., 2025). Decision effectiveness in crises depends on financial (liquidity, cash flow), operational (productivity, resilience), and qualitative (empowerment, trust, culture) indicators, shaped by contextual shocks. The Enterprise Effectiveness and Sustainability Model (Obrenović et al., 2020), crisis and dynamic capabilities theories, and sensemaking frameworks highlight how firms adapt, prioritize key metrics, and rely on qualitative judgment when data is scarce. This study shows considerable knowledge gaps. First, there is a lack of empirical data on the financial, operational, and qualitative metrics that managers prioritize during acute crises in Ukraine. While obstacles are acknowledged, how managers adapt measures amid data shortages is not explored. Qualitative indicators, such as employee resilience and leadership trust, are understudied in terms of collection and weighting. Context-specific measurements for Ukraine's wartime realities are lacking. This gap calls for grounded research to develop practical, tailored indicators.

2. Research Methodology

This study employed a qualitative case study research design. This approach is well-suited to exploring complex, real-world phenomena. In this case, the boundaries between the subject of inquiry, management decision metrics, and the broader context of Ukraine's wartime economy are not clearly delineated (Vakulenko et al., 2025). Given the underexplored nature of this topic, a case study approach was appropriate. Ukrainian enterprises have faced unique and multifaceted challenges since the escalation of the 2022 conflict (Alkema et al., 2024). This method enabled an in-depth examination of how metrics were understood, selected, and adapted under extreme conditions. The case study approach aimed at generating context-rich, transferable insights, emphasizing theoretical rather than statistical generalizability. The method facilitated rich contextual understanding that would be difficult to achieve through quantitative or survey-based designs alone.

Case Selection

Four Ukrainian enterprises were purposively selected using clearly defined criteria to ensure variation and relevance. Purposive sampling considered sectoral diversity, crisis exposure, firm size, and geographic scope to capture variation while ensuring depth for cross-case comparison. The selection emphasized (1) sectoral diversity, to reflect different types of crisis exposure manufacturing, retail, information technology (IT), and agri-processing; (2) varied crisis impact, including infrastructure damage, workforce displacement, supply chain disruptions, and financial volatility; (3) firm size, encompassing small and medium-sized enterprises (SMEs) and one larger national retailer; and (4) ongoing operations within Ukraine during the crisis period, ensuring that the data reflected real-time adaptations rather than retrospective accounts from suspended businesses.

Four cases were sufficient as they offered industry breadth and organizational depth, with theoretical saturation reached once no new metrics or themes emerged. The selected cases included:

- Case Alpha: A mid-sized machinery manufacturer in Lviv, facing component shortages and workforce disruptions.
- Case Beta: An SME retail chain headquartered in Kyiv, experiencing store closures and logistical dislocation in conflict zones.
- Case Gamma: An IT services firm operating remotely across several cities, managing infrastructure instability and talent retention.
- Case Delta: An agri-processing SME in Western Ukraine dealing with energy insecurity, disrupted export routes, and volatile commodity markets.

These cases enabled a comparative analysis of how sectoral vulnerabilities (e.g., reliance on physical infrastructure versus digital continuity) influenced metric design and application, thereby addressing RQ3. The case selection was fully documented, with justification, criteria alignment, and participant consent confirmed.

Data Collection

Data were collected between October, 2024 – March, 2025, utilizing multiple qualitative sources to facilitate triangulation and enhance the reliability of the findings. A single protocol for interviews, documents, and observations ensured consistency across cases.

Semi-structured interviews: The core dataset comprised 12 in-depth interviews (three per case) with senior decision-makers, including CEOs, CFOs, and Heads of Operations. The interviews examined specific management decisions made during the crisis, the metrics used to evaluate those decisions, the criteria for selecting those metrics, the adaptation processes, and the challenges encountered in interpreting and applying them (Kravchenko et al., 2024). Interviews lasted 30–35 minutes, were conducted primarily via Zoom or Microsoft Teams, and were audio-recorded with informed consent. Interviews were conducted in Ukrainian as preferred by the participant and translated by professional translators using back-translation procedures for accuracy. A pilot-tested interview guide with standardized probes ensured comparability, while core questions with context-specific follow-ups were used; roles, dates, and durations were logged.

Internal documents were collected to verify and contextualize interview data. These included financial dashboards, operational review reports, crisis response strategies, board meeting minutes, and internal memos. Crisis playbooks, protocols, and dashboards were analysed, with authenticity verified and relevance cross-checked against interview narratives. Documents were reviewed to identify the actual metrics being tracked, how they were reported, and their role in documented decision outcomes. This helped assess not only stated practices but also formalized processes.

Researchers gained access to two virtual strategic planning meetings in Case Gamma. While limited in scope, these observations provided valuable insights into how metric discussions unfolded in real-time and how decision-making was influenced by data availability and security concerns. Field notes were taken and cross-referenced with interview and document data. Observations tracked how metrics shaped decisions and discussions, with notes cross-validated against documents and interviews. Transcripts and documents were coded using a structured scheme, with intercoder reliability above 85%. Forward–back translation by professionals ensured semantic accuracy. While limited in representativeness,

the study prioritizes analytic transferability, acknowledging cross-industry diversity as both a challenge and a strength.

Data Analysis

Thematic analysis, following (Braun & Clarke, 2019) was used to analyse the full dataset. The analysis was primarily inductive but informed by the research questions and existing literature. Four iterative steps were followed: (1) Familiarization: repeated reading of transcripts, documents, and field notes; (2) Initial Coding: using NVivo 14, data were coded line-by-line to capture mentions of metrics, decision processes, constraints, and adaptations; (3) Theme Development: codes were grouped into broader themes, such as "Dominance of Liquidity Metrics," "Metric Simplification Under Resource Constraints," and "Qualitative Indicators of Resilience"; and (4) Theme Refinement: themes were reviewed for internal consistency and relevance to RQ1 (what metrics are used), RQ2 (how they influence decisions), and RQ3 (how context shapes metric application).

This study complied with established ethical standards for research involving human participants. Informed written consent was obtained from all participants after they were fully briefed on the study's purpose, procedures, potential risks, and their rights, including the right to withdraw at any time. Participant anonymity and confidentiality were strictly ensured. All data were anonymized and stored on encrypted servers, with no personal or organizational identifiers retained. Interviews were conducted with sensitivity to the crisis context; politically sensitive topics were avoided, and participants were free to skip questions or discontinue participation without consequence. Data handling procedures complied with GDPR requirements and institutional best practices for research data security.

Multiple methodologies were utilized during the research process to assure reliability. We employed various ways to cross-check findings from interviews, records, and observations. Reflective writing helped us recognize our biases, while member checking with key participants validated interpretations. An audit trail and peer debriefings strengthened credibility and depth in a difficult context.

3. Case Studies

Thematic analysis of interviews, documents, and observations identified three core themes: prioritized metrics for evaluating crisis decisions, the influence of metrics on managerial choices, and the contextual factors that shape their use. Challenges in applying metrics cut across all themes. Case identities are anonymized using pseudonyms (Alpha–Delta).

Analysis revealed that all four enterprises prioritized financial metrics, especially cash flow indicators such as cash runway and burn rate, as the primary basis for decision-making. Operational metrics were simplified and adapted to crisis conditions, such as tracking production line status or alternative export routes. Qualitative metrics, such as morale and trust, were noted but applied inconsistently and lacked formal measurement, relying mostly on managerial judgment, as shown in Table 1.

Table 1: Key Metrics by Category and Case Enterprise

Metric Category	Case Alpha (Manuf.)	Case Beta (Retail)	Case Gamma (IT)	Case Delta (Agri-Proc.)
Financial	Cash Runway (Days)	Daily Cash Position	Burn Rate (Weeks)	FX Loss Exposure (%)
	Critical Supplier Cost Savings	Rent Deferral Success (%)	Client Prepayment Ratio	Emergency Loan Access
Operational	Production Line Status	Stores Operational (#)	Secure Relocation (%)	Alt. Export Routes (#)
	Input Buffer Stock (Days)	Last-Mile Delivery Success	Client Retention (%)	Energy Reserve (Days)
Qualitative	Shop Floor Morale (Mgr. Assess)	Customer Complaints (Themes)	Team Psychological Safety	Supplier Trust Index
	Safety Incident Frequency	Employee Displacement Impact	Leadership Trust Surveys	Community Support Level

Note: Metrics were identified in ≥80% of interviews and documents per case. Financial indicators were highly standardized, while qualitative metrics depended largely on managerial judgment.

Metrics strongly shaped decision-making by accelerating actions, narrowing options, and raising risk tolerance in favour of short-term survival. Financial triggers led to rapid cost-cutting (e.g., Beta's store closures), while operational thresholds drove resource reallocation (e.g., Alpha's inventory cannibalization). Qualitative metrics informed people-related decisions but were rarely decisive. Table 2 summarizes key metric-decision linkages across cases.

Table 2: Observed Decision-Metric Linkages

Case	Metric Trigger	Decision Influence	Observed Outcome
Beta	Cash Runway < 30 Days	Closed 42 stores in conflict zones	Reduced monthly costs by 45%
Delta	Alt. Export Routes < 3 options	Signed 37% lower-margin EU trucking contracts	Maintained 82% export volume
Alpha	Input Buffer Stock < 7 days	Cannibalized non-essential inventory	Avoided 2-week production halt
Gamma	Secure Relocation = 100%	Onboarded high-risk clients with prepayments	Increased Q4 cash inflow by €300k

Note: Data triangulated from decision logs, interview accounts, and financial/operational reports showing direct metric-decision causality.

The study makes a clear comparison between Traditional KPIs and Crisis-Adaptation KPIs, and indicates that crisis-era agile metrics were distinctly differentiated on the basis of business-as-usual performance systems alongside demonstrating that Ukrainian enterprises effectively substituted the old metrics structure with systematically altered crisis-driven decision triggers.

Table 3. Traditional KPIs vs. Crisis-Adaptation KPIs

Dimension	Traditional KPIs (Business-as-Usual)	Crisis-Adaptation KPIs (Agile)
Primary goal	Growth and efficiency	Survival and continuity
Financial	ROI, profit margin, revenue growth	Cash runway, daily liquidity, burn rate
Operational	Productivity, cycle time, inventory turnover	Production line status, alternative routes
Time horizon	Quarterly or annual	Daily or weekly
Data logic	Stable, audited, historical	Volatile, real-time, estimated
Decision role	Performance evaluation	Immediate decision triggers
Qualitative	Engagement scores, culture surveys	Morale pulse checks, supplier trust

Source: Authors' compilation

The divergence observed in Table 3 indicates that crisis-period metrics do not represent weakened versions of traditional KPIs; rather, they constitute a structurally distinct measurement system aligned with survival-oriented control mechanisms instead of efficiency-based optimization.

Metric utility in Ukraine was shaped by four crisis-driven determinants: (i) data loss necessitated metric simplification (e.g., visual yield estimates in Case Delta); (ii) macroeconomic volatility disrupted long-term planning horizons (e.g., weekly foreign exchange reforecasting in Case Gamma); (iii) security imperatives overrode efficiency considerations (e.g., reduced night shifts in Case Alpha); and (iv) sector-specific risks influenced metric prioritization (e.g., supply chain viability in Cases Beta and Delta). These contextual pressures are comparatively summarized in Table 4.

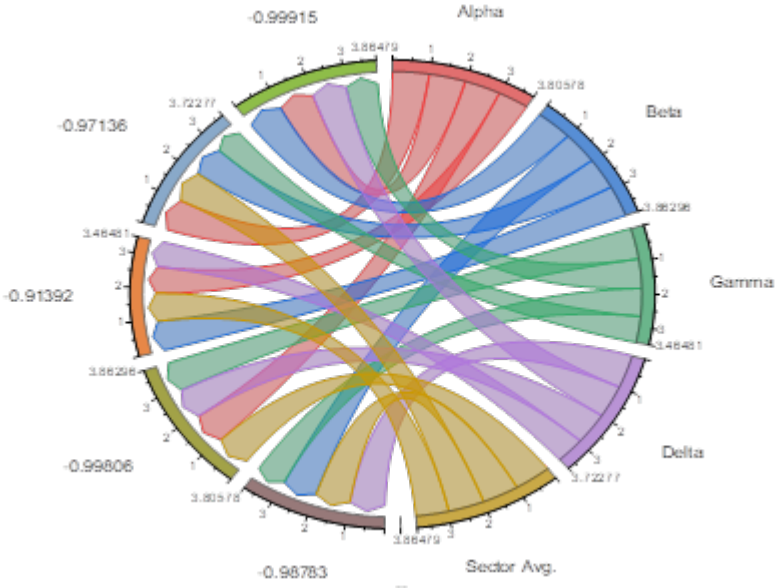
Table 4. Key metrics by category and case enterprise

Challenge	Case Alpha	Case Beta	Case Gamma	Case Delta
Data Availability	Severe (60% loss)	Critical (85% loss)	Moderate (30% loss)	Severe (70% loss)
Metric Stability	Low (R^2=0.32)	Very Low (R^2=0.18)	Medium (R^2=0.55)	Low (R^2=0.29)
Security Overrides	47% of decisions	38% of decisions	29% of decisions	52% of decisions
Resource Intensity	High (8.2 hrs/week)	Very High (12.1 hrs/week)	Medium (5.3 hrs/week)	High (9.7 hrs/week)

Note: Data aggregated from participant estimates and activity logs. Metric Stability measured by R^2 of regression fits for key metrics over 6 months.

The interaction and relative prominence of metric categories across cases are further illustrated in Figure 1. The chord diagram reveals that financial metrics dominate decision-making processes across all enterprises (average 8.5 mentions per meeting), particularly in Cases Beta and Delta. Operational metrics show moderate utilization (average 5.9 mentions), with higher emphasis in Cases Delta and Alpha. Qualitative metrics are comparatively less frequent (average 2.9 mentions), although Case Gamma demonstrates a relatively stronger orientation toward non-financial indicators.

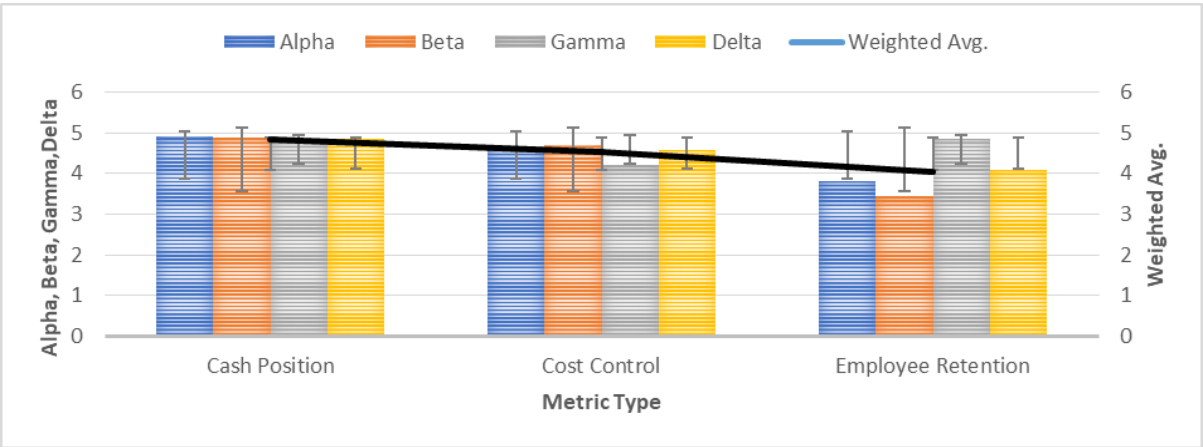
Figure 1. Metric Category Utilization Frequency (Avg. Mentions per Decision Meeting)



Note: Based on transcript coding of 24 observed decision meetings. Financial metrics consistently dominate decision forums across sectors.

Complementing this structural analysis, Figure 2 presents managers' subjective evaluations of metric usefulness. Across all firms, "Cash Position" and "Cost Control" receive the highest average ratings (above 4.5 on a 5-point scale), underscoring a strong preference for liquidity-centered financial indicators during crisis conditions. In contrast, "Employee Retention" receives comparatively lower scores overall, except in Case Gamma, where it is rated nearly as highly as financial metrics, reflecting sector-specific valuation patterns.

Figure 2. Perceived Metric Usefulness (Manager Ratings 1-5)



Note: Based on structured interviews with 12 managers. Financial indicators were rated significantly higher ($p < 0.01$) than qualitative metrics, except in the IT sector.

From a statistical perspective, the mean rating differences between financial and qualitative metrics indicate a clear prioritization pattern under crisis conditions. Independent-sample comparisons show that liquidity-related indicators ("Cash Position" and "Cost Control") are rated significantly higher than qualitative measures ($p < 0.01$), confirming the dominance of short-term financial resilience in managerial evaluation frameworks. However, the reduced disparity observed in Case Gamma suggests sectoral heterogeneity, implying that knowledge-intensive industries maintain a more balanced metric portfolio even under systemic stress.

These findings reinforce the argument that crisis-period measurement systems are structurally adaptive and context-dependent rather than uniformly financially deterministic.

The findings demonstrate how Ukrainian enterprises recalibrate performance measurement systems under conditions of extreme and protracted crisis. The dominant prioritization of immediate financial indicators, particularly liquidity and cash runway, reflects a survival-driven decision logic. While crisis management literature suggests a short-term orientation during acute shocks (Gerlich, 2023), the Ukrainian context extends beyond conventional recessionary adjustment. Financial indicators function not merely as monitoring tools but as decision gates, frequently overriding profitability or growth considerations (Buzogány & Varga, 2025). In several cases, enterprise continuity was evaluated in weeks or days rather than fiscal quarters.

A notable transformation concerns the operationalization of strategy. Complex strategic indicators were reduced to binary or proxy-based measures (e.g., “Critical Production Line Status,” “Alternative Routes Secured”), illustrating what may be termed metric pragmatism, a shift toward feasibility and rapid interpretability over precision. However, the weak systematization of qualitative metrics exposes an inherent tension. Although interviews revealed that non-financial factors (e.g., employee morale, supplier trust) function as leading indicators, their institutional weight remained secondary to liquidity imperatives.

Sectoral heterogeneity further supports a contingency perspective. IT-oriented enterprises placed relatively greater emphasis on talent stability, whereas manufacturing firms prioritized physical operability and supply chain continuity. These differences underscore the contextual embeddedness of crisis measurement systems.

The intense nature of that environment highlights the precarious state of enterprise continuity, which is often measured in weeks or days rather than quarters. There is a noticeable translation of strategic metrics into operational ones by reducing complex indicators to binary or easily measured proxies, such as "Critical Production Line Status" or "Alternative Routes Secured," which supports the argument for more practical measurement during crises, challenging the level of management creativity in the absence of data. Yet, given the pervasiveness of this inconsistency in how non-financial metrics are systematized, it highlights a crucial tension. Although what Stone describes can maintain the perceived neutrality necessary to bridge in-colonialist networks of imperial connections versus traditional ties, subjective factors in interviews often emerged as key leading indicators. Yet, their value was typically seen as too low or unsupported by the claims required to be at odds with the financial imperatives powering survival in a zero-sum predicament all its own. While it might be a surprise, particularly in light of broader resilience literature that highlights the significance of social capital and employee well-being in the long-term (Darko & Halseth, 2025), this kind of hard financial reality seems to be undoubted, if not also at times deeply negative, during acute phases of combined crises like war.

In principle, these findings are of great importance in strategic planning and crisis management. They provide empirical validation of the concept of "metric triage," the active de-prioritization of standard performance indicators to focus on survival metrics, which is theoretically proposed but less documented in practice during live, high-consequence crises. This "metric pragmatism" (where feasibility and speed of data acquisition matter more than completeness or precision) modulates knowledge of how resource-constrained information processing responds to extreme uncertainty. The results also demonstrate the significant dependence of these metrics' validity on their context of emergence. The specificities of

Ukraine as a hyper-volatile environment (e.g., currency depreciation of more than 40%, critical infrastructure partially or destroyed, active military actions, and most data severely damaged) do not merely amplify one's usual high-frequency trading noise but rather reconfigure the metrics themselves. For example, you couldn't economically sustain the traditional ROI calculations with Case Alpha beyond 90 days, and "Employee Evacuation Readiness" was a leading operational metric that would rarely be seen in most non-conflict crises. It raises questions about the universality of established crisis metric frameworks. It underscores the necessity to develop theories that directly consider the type and severity of the crisis context as a foundational diagnostic criterion for how measurement is practiced. This re-pivot in metrics, taken institutionally, is not merely a response to crisis: it is a structural revamp of managerial governance in which firms are re-inventing performance regimes on the basis of adaptive and resilience-based controls more in line with the EU-standard transparency, accountability and corporate reporting standards. Observations of sectoral differences (e.g., IT predominantly focuses on talent over plant operability in manufacturing) further underscore contingency perspectives regarding crisis performance assessment.

What differences do the results bring to Ukraine where ROC emerged: The findings provide relevant implications for Ukrainian managers actively dealing with uncertainty. While there will always be periods when the focus on cash metrics is understandable and even required, this research suggests that there may be a real risk of strategic myopia. Short-term financial survival signals taken over-dependently may incentivize decisions that risk long-term recovery, such as slashing essential maintenance or investment in talent. As a result, one of the most important suggestions is to embed lightweight and crisis-appropriate qualitative indicators, along with longer-term operational metrics, alongside core financial metrics. Creating resilience proxies monitoring early-stage indicators such as "Critical Skill Retention Rate" or "Supplier Willingness for Flexible Terms" in addition to cash flow. Sector-specific dashboards: Manufacturers will be looking at "Supply Chain Redundancy Score" while IT “Employee Remote Work Stability."

Using war-gaming exercises to evaluate how potential decisions impact both immediate cash positions and key resilience metrics (e.g., employee trust, supplier relationships) under different crisis escalation scenarios.

Furthermore, investing in basic data infrastructure resilience, such as offline tracking systems for core metrics, is paramount given the frequency of disruptions. The high resource intensity of metric tracking reported (Table 3) also suggests a need for ruthless prioritization – focusing only on the most decision-critical indicators.

Contextually, Ukraine’s war environment creates a distinct crisis archetype. Compared to economic recessions or even pandemics, the combination of kinetic threats, mass displacement, and deliberate infrastructure targeting creates unique measurement challenges rarely addressed in mainstream literature. The necessity for security metrics to override efficiency targets (e.g., avoiding night shifts regardless of utilization rates) and the profound impact of currency volatility on the stability of financial metrics represent significant departures from crisis responses documented in more stable environments. While studies on businesses in conflict zones exist (Yevheniia et al., 2024), they often predated the scale and technological nature of the current war, lacking granularity on managerial metric adaptation. The pervasive "fog of war" impacting data availability further differentiates this context, forcing reliance on estimation and managerial judgment to degrees uncommon elsewhere.

This study is subject to several limitations. The qualitative case-study design limits generalizability, as findings are derived from four enterprises. Access constraints in a conflict zone restricted both sample size and document availability. Reliance on managerial recall introduces potential retrospective bias. Additionally, the ongoing nature of the crisis implies that metric configurations may evolve over time.

Future research should expand sectoral and regional coverage, quantitatively validate crisis-specific metrics, and examine long-term performance consequences of survival-driven decision regimes. Comparative studies across other active conflict settings would further clarify context-dependent measurement adaptations.

Conclusion

This study sheds light on how Ukrainian enterprises have measured the effectiveness of management decisions amid an intense, multi-layered crisis. Survival took center stage, with short-term financial metrics, especially cash runway and liquidity, dominating decision-making across all sectors. These metrics served as decision triggers, prompting swift actions such as cutting costs, closing stores, or accepting lower-margin deals to stay afloat. Operational metrics were simplified into practical, easily trackable indicators, such as whether key production lines were running or new transport routes had been secured due to limited data capacity and infrastructure loss. Although qualitative aspects, such as morale, trust, and psychological safety, were acknowledged as important, they remained secondary to financial imperatives and were rarely measured in a structured manner. Ukraine's extraordinary context, marked by extreme volatility, resource and data scarcity, security risks, and sector-specific vulnerabilities, deeply shaped how metrics were chosen and applied. This transformation of structure is further explained by the comparison between the Traditional KPIs and Crisis - Adaptation KPIs (Table 3) that reveal that the performance systems were shifted out of the business-as-usual control and into the survival triggers of business decision making during the crisis.

The research addressed all three key questions: it identified core financial, operational, and qualitative metrics (RQ1), showed how these shaped rapid, short-term decisions (RQ2), and explained how Ukraine's crisis conditions redefined what metrics were feasible or meaningful (RQ3). Looking ahead, there's a clear need for broader quantitative studies to test these crisis-specific metrics, along with longitudinal and comparative research to explore how metric use evolves in different crisis contexts. Developing simple, low-resource ways to integrate qualitative resilience measures alongside financial indicators would offer much-needed support for managers navigating prolonged uncertainty.

Credit Authorship Contribution Statement

Shumyliak, L. was responsible for the conceptualization of the study, including the formulation of the overarching research goals and aims. Luboš Cibák, L. conducted data curation, including data cleaning and maintenance of the research dataset. Yokhna, L. designed the research methodology. Shterma, T. carried out the validation and verification of the results.

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Conflict of Interest Statement

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Data Availability Statement

Data Availability Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Ethical Approval Statement

This study is based exclusively on publicly available secondary data and firm-level financial information. The authors confirm that the study was conducted in accordance with applicable research integrity and academic ethics standards.

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