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By Valeriia Medvetska

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The research employs a mixed-methods approach, integrating operational data from the Ukrainian home appliance market (2018–2025), benchmarking against Poland and Lithuania, and qualitative insights from industry peers and published reports (GfK, Euromonitor, PwC). Key performance indicators such as Days Sales Outstanding (DSO), inventory turnover, gross margin, SKU optimization, and crisis response speed are analyzed before and after the adoption of adaptive controlling techniques.

Keywords: financial controlling, crisis management, adaptive strategy, retail, scenario planning, ukraine, central and eastern europe, portfolio diversification, business intelligence.

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Adaptive Financial Controlling in Times of Crisis: Evidence from Eastern European Retail

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Abstract- In the context of unprecedented geopolitical, economic, and supply chain disruptions in Eastern Europe over the past decade, the role of financial controlling in retail has undergone a fundamental transformation. This article offers a comprehensive, practitioner-driven analysis of adaptive financial controlling in the high-volatility environment of the Ukrainian and broader Central and Eastern European (CEE) retail sector. Drawing from my experience as a Key Account Manager in leading multinational and local retail companies- including managing through the collapse of major clients, currency devaluations, and war- I present a novel adaptive controlling cycle specifically tailored for markets exposed to extreme uncertainty.

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Findings show that traditional, annual-budget-based controlling is inadequate for modern Eastern European retail realities. By shifting to real-time data integration (using BI dashboards), weekly scenario-based planning, cross-functional crisis teams, and flexible risk mitigation tools (such as portfolio diversification and dynamic payment terms), it is possible to maintain business continuity, reduce losses, and even achieve growth in times of crisis. For example, following the abrupt exit of Eldorado- formerly a dominant retail client- I led my team in executing an intensive portfolio rebalancing, dynamic SKU optimization, and revised credit policy that restored over 65% of lost turnover within one quarter. Similar strategies enabled us to leverage the rapid market expansion of Epicentr K and capitalize on the "store-in-store" retail format, even as supply disruptions persisted.

Comparative analysis with Poland and Lithuania confirms that Ukrainian retail, while less mature in some aspects, often achieves faster operational pivots and higher rates of innovation in crisis management. A SWOT analysis highlights both the strengths and vulnerabilities of this adaptive model, while case evidence demonstrates its applicability for emerging and developed markets alike.

This article aims to bridge the gap between academic theory and real-world management, providing actionable frameworks for retail executives, financial controllers, and business leaders operating under conditions of volatility and uncertainty.

Keywords: financial controlling, crisis management, adaptive strategy, retail, scenario planning, ukraine, central and eastern europe, portfolio diversification, business intelligence.

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I. Introduction & Research Gap

The past decade has been marked by profound turbulence and transformation for the retail sector in Eastern Europe. From the aftermath of the 2014–2015 geopolitical crisis and repeated waves of currency devaluation to the COVID-19 pandemic and, most dramatically, the full-scale war in Ukraine beginning in 2022, retail businesses have been forced to reimagine their operational, financial, and strategic foundations. In this environment, the ability to anticipate shocks, adapt rapidly, and manage financial risk has become a defining factor for survival- and, for a select few, for sustainable growth.

My own professional journey as a Key Account Manager for leading brands and retail networks in Ukraine has been shaped by this sequence of shocks. Where once annual budgets, static assortment planning, and relationship-based sales models sufficed, today's reality demands a new level of flexibility, data-driven decision-making, and proactive risk management. The home appliance sector, in which I have worked for over a decade, provides a microcosm of these challenges: dramatic swings in demand, sudden changes in distribution channels, inventory shortages, and the need to constantly reassess client portfolios in light of emerging risks.

a) *Crisis as the New Normal*

It is no exaggeration to state that crisis management has become the "new normal" for Eastern European retail. This is not merely a rhetorical flourish, but a daily operational reality. Supply chain blockages, destroyed logistics hubs, sudden regulatory changes, and rapidly shifting consumer behavior- each of these has tested the robustness of traditional financial controlling systems. In my experience, even the most well-crafted annual budget becomes obsolete within weeks when confronted with such volatility.

b) *Limitations of Traditional Controlling*

The classic models of financial controlling- rooted in annual budgets, periodic variance analysis,

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and hierarchical decision-making- are increasingly inadequate in this context. Many Ukrainian and CEE retailers, myself included, have learned this lesson the hard way. Rigid budgeting left us unable to respond to sudden shocks. Siloed organizational structures delayed critical decisions. By the time "last quarter's numbers" were available, the business reality had already changed.

c) Acceleration of Digital and Scenario-based Approaches

Against this backdrop, there has been an accelerating shift toward digitalization and scenario-based planning. Business intelligence (BI) dashboards, real-time inventory monitoring, rolling forecasts, and weekly scenario reviews are no longer "nice to have"- they are essential. In my own practice, the adoption of BI tools such as Power BI and Tableau enabled the integration of sales, inventory, receivables, and cash flow data, creating a single source of truth for decision-making. Cross-functional crisis teams replaced siloed planning; scenario-based models replaced static annual plans.

d) The Ukrainian Retail Market: A Living Laboratory

Ukraine's retail market, while less mature than those of Western Europe, has become a living laboratory for adaptive financial management. According to GfK and Euromonitor, the market for home appliances and consumer electronics has experienced dramatic contraction and recovery cycles over the past five years. The exit or bankruptcy of major players (such as Eldorado), the rapid expansion of new formats (like "store-in-store" concepts led by Epicentr K), and the entry of global brands have created a highly competitive, unpredictable environment. In this setting, financial controlling is no longer the exclusive domain of CFOs and accountants: it has become a frontline discipline for commercial and operational leaders alike.

e) International Perspective and Benchmarking

While the bulk of academic literature on retail controlling remains focused on stable, Western markets, a growing body of evidence highlights the unique challenges and opportunities of the CEE region. Comparative studies with Poland, Lithuania, and Romania reveal both commonalities (in the need for digitalization and process innovation) and differences (in the pace of adoption and crisis resilience). In my own benchmarking, I found that while Polish retailers lead in BI adoption, Ukrainian companies are often faster to innovate under duress, implementing radical changes that would take years elsewhere.

f) Research Gap: Bridging Theory and Practice

Despite this growing complexity, there remains a significant gap between academic theory and real-world practice. Most published research emphasizes process optimization, cost control, and digital transformation in steady-state conditions. Few studies capture the lived experience of managers forced to improvise, pivot, and reallocate resources on a weekly or even daily basis. Even fewer offer actionable frameworks that integrate both technology and human judgment for crisis management in emerging markets.

g) Aim and Objectives of the Article

This article is my attempt to bridge this gap. Drawing on both operational data and personal management experience from 2018–2025, I set out to:

- Develop a practical, adaptive financial controlling cycle tailored for volatile, crisis-prone retail markets in Eastern Europe;
- Benchmark the Ukrainian experience against peer markets in Poland and Lithuania, identifying both best practices and unique pitfalls;
- Provide detailed case evidence -ncluding the collapse and recovery after Eldorado's exit, the rise of Epicentr K, and lessons from international retail;
- Offer a comprehensive SWOT analysis of the adaptive model, highlighting its strengths, vulnerabilities, and pathways for future improvement;
- Deliver actionable recommendations for retail executives, KAMs, and financial controllers seeking to survive and grow amidst continuing uncertainty.

In sum, this article seeks to advance both scholarly understanding and managerial practice, helping close the gap between theory and the daily realities of financial controlling "on the front lines" in Eastern European retail.

II. Literature Review

The academic and professional discourse on financial controlling in retail has evolved significantly over the past two decades, with an accelerating focus on digitalization, risk management, and scenario-based planning. Yet, a persistent gap remains between mainstream theory- largely developed in stable, mature markets- and the practical realities faced by retailers in volatile environments such as Ukraine and Central and Eastern Europe (CEE). This review synthesizes both classical and modern literature, highlighting the strengths and limitations of existing frameworks and their relevance to the Eastern European context.

1. *Classical Foundations of Financial Controlling*

The roots of financial controlling lie in postwar managerial accounting, with foundational works by Anthony and Govindarajan (2017), Drury (2022), and Horváth (2021) emphasizing budgeting, variance analysis, cost control, and hierarchical decision-making. These models prioritize stability, predictability, and incremental optimization- principles well-suited for the relatively slow-moving, low-volatility environments of

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Western Europe and North America in the late 20th century.

- *Budgeting and Variance Analysis*

Traditional budgeting remains the cornerstone of corporate financial control. According to Drury (2022), the annual budget serves as both a planning tool and a basis for performance evaluation. Variance analysis provides retrospective insights into deviations from planned targets, enabling corrective action (Horváth, 2021).

- *Cost Control and Profitability*

The classical literature emphasizes cost leadership and margin optimization as primary levers for profitability. Standard cost systems, activity-based costing, and contribution margin analysis have been widely adopted in multinational retail organizations (Anthony & Govindarajan, 2017).

While these models have provided structure and discipline to generations of managers, they suffer from inherent rigidity. In fast-changing or crisis environments, the lag between data collection, reporting, and decision-making can prove fatal.

2. *The Digital Turn: BI, Dashboards, and Real-Time Analytics*

The past decade has witnessed a dramatic shift towards digitalization in financial controlling. Consulting firms (Deloitte, 2023; EY, 2023) and academic researchers alike have documented the rapid adoption of business intelligence (BI) platforms, real-time dashboards, rolling forecasts, and cloud-based analytics.

- *BI and Data Integration*

BI tools such as Power BI, Tableau, and Qlik enable the integration of sales, inventory, receivables, and cash flow data into dynamic dashboards. These systems provide "single source of truth" visibility, enabling more rapid and accurate decision-making (Deloitte, 2023).

- *Rolling Forecasts and Scenario Planning*

Traditional annual budgeting has increasingly been replaced by rolling forecasts and scenario-based planning. According to McKinsey (2023), weekly or even daily scenario reviews have become standard in industries exposed to volatility, such as retail and FMCG. EY (2023) emphasizes the use of predictive analytics and Monte Carlo simulations to anticipate shocks and test resilience.

- *AI and Predictive Modelling*

Recent literature highlights the potential of AI and machine learning to improve demand forecasting, automate anomaly detection, and optimize assortment planning (PwC, 2023; GfK, 2024).

Despite these advances, several barriers to full adoption persist- especially in emerging markets. These include high upfront investment costs, limited digital skills, organizational resistance, and concerns about data security.

3. *Crisis Management and Financial Controlling in Retail*

A distinct but growing branch of literature examines financial controlling under crisis conditions. Boin and 't Hart (2022) analyze the importance of rapid decision cycles, distributed authority, and real-time information sharing during shocks. Williams and Dobson (2023) provide case studies from global retailers responding to the COVID-19 pandemic, emphasizing the need for cross-functional crisis teams and continuous "plan-do-check-act" loops.

For the CEE region, research by Kovalchuk (2022) and the European Retail Academy (2023) documents how supply chain blockages, regulatory changes, and abrupt shifts in consumer demand have forced managers to abandon static planning in favor of adaptive, scenario-driven approaches. However, most of these works are descriptive and lack practical frameworks for implementation.

4. *The CEE Perspective: Gaps, Barriers, and Innovations*

- *Slow Digitalization*

GfK (2023) and Euromonitor (2024) confirm that the pace of BI and analytics adoption in Ukraine and neighboring countries lags behind Western Europe, owing to both financial constraints and a shortage of digital talent.

- *Organizational Resistance*

Kovalchuk (2022) notes that many Ukrainian retailers struggle to break down functional silos. Change management and staff retraining remain major obstacles to agile controlling.

- *Crisis as a Catalyst*

Paradoxically, repeated crises have accelerated innovation in some cases. Retailers such as Epicentr K, Comfy, and Foxtrot have pioneered rapid decision-making models, weekly scenario reviews, and dynamic portfolio rebalancing- often out of necessity rather than strategic choice.

- *Benchmarking Against Poland and Lithuania*

Comparative studies (PwC, 2023; Deloitte, 2023) reveal that Polish retailers are ahead in digital transformation and process automation, but Ukrainian managers are often faster to improvise under pressure.

5. *Literature Gap and Research Needs*

Despite this Evolving Landscape, Several Gaps Persist:

- *Overemphasis on Stable Markets*

The majority of published frameworks are ill-suited for "crisis-as-normal" environments. There is a

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lack of case-based, practitioner-driven models from Ukraine and the broader CEE region.

- *Insufficient Integration of Human and Digital Factors*

While technology is critical, the literature often underestimates the importance of cross-functional teams, leadership, and hands-on management in successful controlling transformations.

- *Limited Analysis of Portfolio Diversification and Credit Risk*

Much research focuses on cost and process optimization, with less attention to portfolio concentration risk, payment terms, and the impact of client defaults—critical factors in my own experience.

6. *This Article's Contribution*

This Article Seeks to Address these Gaps by:

- Presenting a real-world, adaptive controlling cycle grounded in lived management experience during multiple crises in Ukraine;
- Providing comparative KPI analysis across Ukraine, Poland, and Lithuania, with supporting operational data;
- Delivering actionable frameworks and best practices for practitioners facing uncertainty and disruption in retail markets.

III. My adaptive Controlling Cycle: A Practitioner's Model for Turbulent Markets

The full-scale invasion of Ukraine in 2022 became not only a humanitarian tragedy but also a watershed moment for the business community. For me and my colleagues in the retail and home appliance sector, it was the ultimate stress test for financial controlling. All textbook solutions- annual budgets, quarterly variance reviews, and even digital dashboards- proved necessary, but not sufficient, for survival in an environment where reality changed daily. The need for a new, truly adaptive approach was clear.

a) Origins of the Model: Learning through Crisis

My adaptive controlling cycle did not emerge in a boardroom, but on the "front lines" -during weeks of supply chain paralysis, sudden client defaults, and daily price shocks. The sequence of overlapping crises since 2014 had already forced Ukrainian managers to develop improvisational skills. However, it was the war and resulting business disruptions that compelled us to formalize this experience into a repeatable cycle, blending technology, rapid cross-functional teamwork, and scenario-driven decision-making.

Step 1: Real-Time Data Integration and Visualization

Before the crisis, data management in most Ukrainian companies- including those I worked with - remained fragmented. Reports were generated in Excel, with significant delays and frequent errors. In early 2022, my team and I prioritized the integration of all key business data- sales, inventory, receivables, and cash flow- into a unified Power BI dashboard. This transformation provided two critical advantages:

- *Single Source of Truth*

Every stakeholder, from supply chain managers to CFOs, now had access to real-time, consistent data. Discrepancies between departments vanished; trust and speed increased.

- *Early Warning Signals:*

Automated alerts were set for anomalies in inventory turnover, overdue receivables, or sudden drops in sales. This made it possible to act before problems spiraled out of control.

Lesson Learned: Digitalization is as much about changing mindsets as installing new software. Our initial challenge was overcoming "Excel culture" and building trust in the new system. Dedicated training sessions and hands-on support were essential.

Step 2: Weekly Scenario Planning and Stress Testing

Annual plans and even monthly forecasts quickly became obsolete during the crisis. We replaced them with weekly scenario planning meetings, where cross-functional teams would simulate multiple "what if" situations:

- What happens if another major retailer closes?
- What if border delays extend another month?
- How will currency swings affect our margins next week?

Every scenario was documented, and action plans were prepared in advance. For example, when risk signals appeared in Epicentr K's sales performance, we immediately prepared alternative allocation models and promotional strategies.

Lesson Learned: Scenario planning is only effective when it becomes a habit. It's not enough to create documents; the entire commercial team must be empowered to act on them.

Step 3: Cross-Functional Crisis Teams

In the past, financial and commercial planning operated in silos. The crisis destroyed these boundaries. I organized weekly "crisis response teams" composed of representatives from finance, sales, supply chain, and IT. These teams:

- Reviewed KPIs and dashboard alerts together
- Debated action plans, weighing trade-offs between liquidity, sales, and customer service
- Made rapid, delegated decisions- often within hours, not days

For example, during the Eldorado collapse, our team immediately identified surplus stock, negotiated

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accelerated promotions with Foxtrot and Comfy, and redirected logistics resources to priority accounts.

Lesson Learned: The speed and quality of decisions improved dramatically when information was shared and accountability was distributed.

Step 4: Dynamic Policy Adjustment- Payment Terms, Portfolio, and Assortment

Flexibility in policy became our key defensive weapon. In stable times, payment terms and assortment matrices might change quarterly. During crisis, they were revised weekly or even daily. Notable examples include:

- *Payment Terms:*

After Eldorado's default, all remaining major clients were required to provide bank guarantees or shift to prepayment, especially for high-risk or slow-moving categories.

- *Portfolio Diversification:*

We made it a strict rule that no single client could account for more than 35% of total turnover. Regular portfolio analysis became mandatory.

- *SKU Optimization:*

The number of active SKUs was reduced from 85 to 63 in one quarter, focusing on high-margin, fast-moving products.

Lesson Learned: The "one size fits all" approach to clients and products is a luxury volatile markets cannot afford.

Step 5: Rapid Execution and Continuous Monitoring

Once decisions were made, execution had to be immediate. We moved inventory between warehouses, launched short-term promotions, and implemented new payment rules within 24-48 hours. The BI dashboard was reviewed every Monday. If KPIs fell outside tolerance, immediate action was triggered.

Lesson Learned: Execution is where most companies fail, not planning. We succeeded by assigning clear responsibility and holding brief, daily check-ins.

Step 6: Feedback Loop and Continuous Learning

After each "mini-crisis," the team conducted lessons-learned sessions. We documented what worked, what failed, and how processes could be improved. These insights fed directly into the next cycle of planning.

For example, one key finding was that staff were initially reluctant to challenge established sales practices. After several group training sessions, team members grew more comfortable raising concerns and suggesting alternative scenarios.

Lesson Learned: Continuous learning- not just digital tools- is the true foundation of resilience.

b) Key Best Practices and Practical Rules

- Always run at least three "what if" scenarios each week.
- Set "hard" portfolio caps to prevent overexposure to any one client.
- Prioritize data integrity and system trust before digital expansion.
- Build cross-functional teams empowered to make real decisions.
- Make execution and follow-up as rigorous as planning.

Summary Table: Adaptive Controlling Cycle vs. Traditional Model

Feature	Traditional Controlling	Adaptive Controlling Cycle
Planning Horizon	Annual/Quarterly	Weekly/Daily
Data Integration	Manual, Excel	Real-time, BI Dashboards
Decision-Making	Hierarchical	Cross-functional, distributed
Payment & Portfolio Policy	Static	Dynamic, scenario-driven
SKU/Assortment Review	Infrequent	Ongoing, responsive
Crisis Response Speed	Weeks	Hours/Days
Learning & Feedback	Rare, after crisis	Integrated, continuous

c) Lessons Learned: Personal Reflections

Reflecting on the past three years, I am convinced that no digital tool or consulting framework can replace the value of hands-on, adaptive management. Technology is an enabler, not a cure-all. Real resilience comes from people- empowered, informed, and ready to act.

The adaptive controlling cycle I have developed with my teams is not a theoretical construct. It is a living, evolving system- tested in real-world crises and constantly improved. I believe this model is not only applicable to Ukraine or CEE, but offers lessons for any market facing volatility, disruption, or sudden shocks.

IV. Methodology and Comparative Analysis

a) Research Design and Data Sources

This research is grounded in a mixed-methods approach, integrating quantitative performance data, qualitative managerial experience, and comparative benchmarking with peer markets in Central and Eastern

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Europe. My goal was not to create a theoretical abstraction but to develop a practitioner-driven, field-tested controlling model- one that could survive the turbulence of the Ukrainian market while providing universal lessons for other crisis-prone economies.

i. *Key Data Sources Include*

- *Operational Data:* From my work as a Key Account Manager (Whirlpool/Beko Europe, Eldorado, 2018-2025), including weekly BI dashboard reports, payment and inventory analytics, and scenario planning logs.
- *Market Analytics:* From GfK, Euromonitor, and PwC, offering cross-market benchmarks for KPIs such as Days Sales Outstanding (DSO), inventory turnover, gross margin, and share of prepayment shipments.
- *Qualitative Insights:* From semi-structured interviews with commercial, financial, and supply chain managers in Poland and Lithuania (2023- 2024).
- *Published Case Studies:* And best practices, especially in digital transformation and risk management in CEE retail.

Data triangulation was applied to validate findings, ensuring that managerial "gut feel" was always checked against operational evidence and external benchmarks.

ii. *Sampling and Periodization*

The core period of analysis covers 2021- 2025, capturing the transition from relative stability through the shock of war, the bankruptcy of dominant retail clients, and the subsequent adaptation of market leaders. Additional reference points from 2014–2020 and Western European comparators are included for context.

iii. *Sampling Strategy*

- Weekly operational snapshots (sales, inventory, receivables, margin)
- Crisis and recovery periods (e.g., Eldorado collapse Q2 2023)
- Comparative data slices (Ukraine, Poland, Lithuania, as available from public and private sources)

b) Comparative KPI Table: Ukraine, Poland, Lithuania (2023–2024)

The table below synthesizes core controlling metrics, illustrating both the unique challenges and surprising strengths of the Ukrainian market.

KPI Metric	Ukraine (2023)	Poland (2023)	Lithuania (2023)
BI Platform Adoption (%)	58	71	65
Days Sales Outstanding (DSO)	44	37	39
Inventory Turnover (days)	54	49	46
Gross Margin (%)	20.8	22.1	21.5
Prepayment Shipments (%)	38	22	16
SKU Optimization Rate (%)	26	18	14
Crisis Response Speed (days)	7	10	9
Weekly Scenario Planning	Yes	Sometimes	Sometimes

Source: GfK, PwC, company operational data, 2023–2024

Interpretation: Ukrainian retail, forced to adapt by repeated shocks, has achieved exceptional speed and flexibility in crisis response (7 days on average), while aggressively optimizing portfolios (SKU base down by 26% in the sample period). Polish and Lithuanian peers outperform on margin and digital maturity but tend to move more slowly under pressure.

c) Case Evidence and Real-World Best Practices

i. *Epicentr K: Market Expansion and Innovation*

In the wake of Eldorado's collapse, Epicentr K rapidly expanded its market share in the home appliance sector. By the beginning of 2025, Epicentr K operated 66 active shopping centers, with 6 Nova Linia hypermarkets, despite the destruction or closure of 9 other locations due to war. The company's aggressive adoption of the "store-in-store" concept- integrating appliance zones into larger retail centers- transformed the consumer experience and created new revenue streams for vendors.

Impact: My team's strategy involved immediate reallocation of promotional and stock resources to Epicentr K and other rising players. Within six months, these actions contributed to recapturing more than 65% of turnover lost from the Eldorado shock. GfK data for 2024 confirmed that, while the market had not fully returned to pre-war levels, the share of Epicentr K in key appliance categories increased by over 12%, and the "store-in-store" format was cited as a leading driver of resilience.

ii. *Case: Payment Terms and Portfolio Diversification*

Before 2022, it was common for dominant clients to receive the most favorable payment terms, sometimes 60+ days. This concentration risk became catastrophic when Eldorado defaulted in 2023, closing

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over 100 stores and leaving unpaid debts. In response, my team instituted a strict upper limit: no client would exceed 35% of total portfolio. Payment terms were universally tightened, with prepayment or bank guarantees required for all but the most trusted accounts.

Lesson: Diversification is not an academic ideal- it is an operational necessity in volatile markets.

d) Best Practices from Poland: Biedronka's Agile Risk Management

Poland's Biedronka- Europe's largest discount retailer-provides a leading example of crisis agility. During pandemic and supply chain shocks, Biedronka's management:

- Automated inventory and sales data flow across 3,000+ stores via real-time BI
- Used predictive analytics to shift stock to high-demand locations within 24 hours
- Built a network of local suppliers to reduce import dependency
- Maintained strict credit policies even under market pressure

This multi-layered, tech-enabled approach minimized out-of-stocks and protected margin, as confirmed by McKinsey (2023) and Polish trade press.

e) SWOT Analysis: Adaptive Controlling Cycle in Eastern European Retail

Strengths	Weaknesses
Real-time scenario planning and rapid response	High learning curve for staff
BI dashboards for early risk detection	Upfront technology investment
Cross-functional, empowered teams accelerate execution	Potential for "analysis paralysis" with too much data
Portfolio caps and SKU focus reduce vulnerability	Temporary disruption during transitions
Continuous feedback drives innovation	May not suit centralized/cautious organizations
Opportunities	**Threats**
Wider AI and predictive analytics adoption	Geopolitical instability, war, and supply shocks
Development of private label and niche categories	Currency fluctuations and macroeconomic crises
Regional benchmarking and "shared learning"	Market exits by global players
Expansion of omni-channel and e-commerce	Ongoing staff shortages and digital skills gap

f) Analytical Summary

This comparative, mixed-method approach validates the adaptive controlling cycle not as a theoretical construct, but as a working system-grounded in data, lived experience, and industry best practice. The evidence shows that while Ukrainian and CEE retailers face unique threats, they are also at the forefront of innovation in crisis management, offering valuable lessons for global peers.

V. Results: Transformation, KPI Impact, and Managerial Lessons

1. *Transformational Shifts: From Crisis to Adaptive Management*

The adoption of the adaptive controlling cycle represented a paradigm shift for both my team and the wider organization. Previously, our financial management was dictated by annual planning, static client portfolios, and a culture that rewarded growth in sales volume above all else. The war, the collapse of major clients, and severe market shocks forced us to reprioritize- placing liquidity, risk management, and resilience at the core of decision-making.

Key Elements of Transformation Included:

- *Data Integration:* Migration to BI dashboards, elimination of fragmented Excel reporting, real-time visibility into every KPI
- *Scenario Planning:* Weekly "war room" sessions to simulate potential crises, from logistical blockades to currency devaluation and client bankruptcy
- *Portfolio Diversification:* Setting a hard cap of 35% for any single client's portfolio share; mandatory monthly review of channel balance
- *Dynamic Payment Terms:* Immediate shift to prepayment or bank guarantees for at-risk clients; no more "automatic" 60-day credit for top buyers
- *SKU Optimization:* Streamlining from 85 to 63 active SKUs, with ongoing reviews to prioritize margin and inventory velocity

Managerial Lesson:

No transformation succeeds without people. Building buy-in, retraining staff, and empowering decision-makers at every level proved as crucial as any technological investment.

2. *KPI Outcomes: Before and After Adaptive Controlling*

To measure the effectiveness of our adaptive cycle, I compared core performance metrics from pre-

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crisis (2021) and post-crisis (2023) periods. The following table summarizes the results:

Table 1: Key Controlling KPIs Before and After Adaptive Approach (Whirlpool/Beko Europe, Ukraine, 2021–2023)

Metric	Pre-crisis (2021)	Post-crisis (2023)
Receivables DSO (days)	66	44
Inventory turnover (days)	66	54
Gross margin (%)	18.5	20.8
Share of dominant client (%)	55	33
Number of active SKUs	85	63
Share of prepayment shipments	10	38

Source: Author's operational data and management reporting

Analysis:

- *Receivables DSO:* Improved by 33% (from 66 to 44 days), freeing up cash and reducing credit risk.
- *Inventory Turnover:* Accelerated, reflecting faster movement of goods and lower storage costs.
- *Gross Margin:* Increased by 2.3 percentage points, despite ongoing price wars and inflation, thanks to disciplined assortment management and focused promotions.
- *Portfolio Concentration Risk:* Was sharply reduced: no client now exceeds 33% of sales.
- *Prepayment Shipments:* Nearly quadrupled, dramatically reducing bad debt exposure.
- *SKU Rationalization:* Delivered further liquidity and efficiency gains.

3. *Case Study: Portfolio Diversification and Recovery after Eldorado*

The abrupt exit of Eldorado- once responsible for more than half our turnover- tested the limits of our new model. The initial shock triggered a severe liquidity crunch and surplus inventory, especially in slow-moving categories.

Response Actions:

- *Immediate Inventory Audit:* Surplus SKUs were identified, and a rapid reallocation plan was executed, shifting goods to other retail partners and through online channels.
- *Accelerated Negotiations:* Promotional incentives and favorable payment terms (for reliable partners) were rolled out to Comfy, Foxtrot, and Epicentr K, enabling them to absorb additional volume.
- *Credit Policy Overhaul:* Universal application of bank guarantees and prepayment requirements for all new contracts, regardless of size or history.

Outcomes:

Within a single quarter, we restored more than 65% of lost turnover. Epicentr K's willingness to pilot "store-in-store" concepts provided an agile alternative, and the expansion of their network (to 66 active shopping centers by early 2025) helped stabilize channel mix. By the end of 2024, the share of Epicentr K in home appliances grew by over 12%, according to GfK data.

4. *SKU Optimization: Margin, Liquidity, and Customer Value*

SKU rationalization was not simply about cutting SKUs, but about focusing on those that drove both margin and inventory velocity.

Table 2: SKU Performance Before and After Optimization

KPI	Pre-optimization (2021)	Post-optimization (2023)
Number of SKUs	85	63
Average Margin (%)	17.2	19.6
Inventory Days per SKU	61	47
Out-of-Stock Incidents	24/month	10/month

Impact:

- Higher margins, fewer slow-movers, reduced inventory holding costs, and improved on-shelf availability.
- Customers noticed faster replenishment, leading to improved NPS (Net Promoter Score) by +7 points in targeted categories.

5. *Dynamic Payment Policy: Risk Mitigation in Practice*

Before 2022, payment terms were often a negotiation tool to win volume. This approach backfired during liquidity shocks. Our new adaptive policy differentiated terms by risk profile and inventory velocity.

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Results:

- DSO dropped from 66 to 44 days
- Bad debt write-offs decreased by more than 60% year-on-year
- Reliable partners, such as Epicentr K and Comfy, received modest flexibility in return for larger share-of-wallet commitments and robust financial health.

6. *Best Practices: Weekly Cross-Functional "War Rooms"*

One of the most effective innovations was the institution of weekly "war room" sessions, bringing together sales, finance, supply chain, and IT. Each meeting included:

- Review of key BI dashboard KPIs (DSO, stock days, margin, on-shelf availability)
- Rapid scenario simulations ("what if we lose another major account?" "what if imports stall?")
- Decision and delegation of actions, with next-week accountability

This approach collapsed decision cycles from weeks to days, accelerated response to market shocks, and increased staff engagement.

7. *Regional Comparison and Lessons from Poland*

Poland's retail sector- particularly Biedronka- offered valuable lessons. While Polish companies benefited from more robust digital infrastructure and process automation, their crisis response was slower due to higher bureaucracy and rigid legacy systems. In contrast, *Ukrainian teams* (mine included) moved faster to diversify portfolios and shift inventory, albeit with fewer digital resources.

Table 3: Regional KPI Comparison, Ukraine vs. Poland (2023)

KPI	Ukraine (2023)	Poland (2023)
Crisis Response Speed	7 days	10 days
BI Adoption (%)	58	71
SKU Optimization Rate	26%	18%
Prepayment Shipments (%)	38	22%
Portfolio Cap Policy	Yes	No

8. *Human Factor and Change Management*

None of these achievements would have been possible without investing in people:

- Retraining staff on BI dashboards and data-driven decision-making
- Shifting the mindset from "sell at all costs" to "protect liquidity and margin"
- Encouraging open dialogue across functions, so warning signs were not missed

Managerial Reflection:

I observed that teams which practiced regular cross-training and scenario planning adapted faster to change, made fewer mistakes, and delivered higher KPIs across the board.

9. *Summary: What Worked, What Didn't*

Success Factors:

- Real-time, transparent data and early alerts
- Rapid scenario planning and decision-making
- Disciplined, dynamic payment and assortment policies
- Empowerment and cross-functionality

Challenges:

- Resistance to change, especially from long-tenured staff
- Temporary sales dips during portfolio rebalancing
- Need for constant training and support

10. *The "Adaptive Controlling Dashboard": A Real-Time Management Solution*

A central enabler of our adaptive controlling model is the *Adaptive Controlling Dashboard*- an interactive management panel designed for real-time oversight and decision-making. In crisis conditions, when the business environment can change overnight, it is essential to have all critical metrics and risk signals visible at a glance, allowing managers to respond rapidly and make well-informed choices.

How does this Dashboard Work in Practice?

- *Real-Time KPI Widgets:*

The dashboard displays a series of live "widgets" or metric blocks that are continuously updated. Key indicators include:

  - *DSO (Days Sales Outstanding):* The average time receivables remain unpaid- a crucial measure of liquidity risk.
  - *Margin:* The current gross margin percentage, monitored by product group or overall.
  - *SKU Count:* The number of active products in the portfolio, enabling immediate control over assortment complexity.
  - *Stock outs:* Real-time alerts on which items are out of stock and at which locations.

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- *Portfolio Shares:* The relative weight of each major client or channel in the company's revenue mix, highlighting concentration risk.

- *Scenario Planner Section*

The dashboard includes a dedicated area for running "what-if" scenarios. For example, a manager can simulate the impact on KPIs if a top client fails to pay, or if currency exchange rates suddenly shift. The scenario planner instantly projects the consequences on cash flow, margin, and stock levels- turning risk analysis into a routine management tool rather than a crisis response.

- *Weekly Trend Charts and Alerts*

Embedded charts show the weekly or monthly evolution of each key indicator. Trends in turnover, overdue receivables, margin, and stockouts are visualized, with color-coded alerts (e.g., red for warning, green for normal) to signal emerging risks or positive developments. This ensures that problems are detected early, before they escalate.

- *Integration with CRM and ERP*

Unlike traditional, siloed reporting tools, the adaptive dashboard is fully integrated with both CRM (customer relationship management) and ERP (enterprise resource planning) systems. This allows automatic, real-time synchronization of sales, logistics, financial, and customer data, creating a unified source of analytics for all departments.

The adaptive dashboard transforms financial controlling from a reactive, retrospective function into a proactive, strategic asset. Instead of waiting days or weeks for manual reports, the commercial, finance, and supply chain teams all work from the same up-to-date information. Problems can be identified and resolved before they become critical, and cross-functional coordination is dramatically improved. The Adaptive Controlling Dashboard is not just a technical solution; it is the operational "nerve center" of crisis management-supporting both daily business and extraordinary situations with actionable, transparent, and timely insights.

Results show that even in extreme volatility, retail organizations can regain control, protect margin, and build new paths to growth- if they embrace adaptive, data-driven, and people-centered controlling practices.

VI. Discussion

The findings of this study highlight both the challenges and successes of adopting adaptive financial controlling in the Ukrainian and wider CEE retail sector during an era of unprecedented disruption. In this section, I will interpret the key results, compare them to the established literature, explore the practical barriers and enablers encountered in real business environments, and draw out broader lessons for both academia and management.

1. *Bridging Theory and Practice: Where Literature Meets Reality*

As shown in the Literature Review, much of the global research on financial controlling is rooted in assumptions of market stability and incremental change. In contrast, my experience demonstrates that the Eastern European retail environment is characterized by sudden shocks, resource constraints, and continuous improvisation. For example, while Drury (2022) and Horváth (2021) emphasize the virtues of annual budgets and centralized cost control, these tools rapidly lost relevance when client bankruptcies, war, and logistics crises became weekly realities.

Our results reinforce the growing consensus among practitioners (Deloitte, 2023; EY, 2023) that *digitalization and scenario-based planning are no longer optional*, but core competencies. The successful implementation of real-time dashboards and scenario planners mirrored global best practices- yet, the pace and scope of change in Ukraine was often faster, out of necessity rather than choice. This observation is in line with recent CEE-specific studies (Kovalchuk, 2022; GfK, 2024) that underscore the market's agility and the ability to "leapfrog" traditional stages of process maturity.

2. *Practical Barriers: Organizational, Cultural, and Technical*

Despite the successes described in the Results section, several persistent barriers complicated the adaptive controlling journey.

- *Cultural Resistance*

A significant obstacle was the entrenched "Excel culture" and reluctance among long-tenured staff to trust automated dashboards or embrace real-time transparency. Overcoming this required both formal training and informal championing by cross-functional leaders.

- *Skills Gap and Staff Shortages*

Especially during 2022–2023, the war and economic crisis led to high staff turnover. Recruiting and upskilling employees capable of using BI tools was an ongoing challenge.

- *Technology Costs and Integration*

While off-the-shelf BI solutions exist, full integration with legacy CRM and ERP systems demanded investment and, often, painful process reengineering. This was particularly acute for mid-sized and local retailers.

- *Short-Term Disruptions:*

Every major change- be it tightening payment terms, cutting SKUs, or shifting inventory between channels- led to temporary dips in sales or customer

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satisfaction. These were unavoidable, but the long-term benefits outweighed the initial friction.

3. *Comparative Analysis: Ukraine vs. Poland and Lithuania*

The cross-country KPI tables show that, despite a relative lag in digital adoption, Ukrainian retailers achieved much faster response times in crisis situations compared to Polish or Lithuanian peers. This agility can be attributed to a "survival mindset" honed by years of instability.

- *Poland*

Benefits from more robust systems and higher BI penetration, but faces greater organizational inertia. Strategic decisions often move slowly due to complex hierarchies.

- *Lithuania*

Occupies a middle ground—faster than the West, but not as bold or improvisational as Ukraine.

Interestingly, certain innovations—such as setting a strict upper cap on client portfolio share, and linking payment terms directly to real-time risk assessment- were more prevalent in Ukraine than in more mature markets. This reflects both the necessity of dealing with client defaults and the willingness to experiment in the face of existential threats.

4. *The Human Factor: Change Management as Core Competence*

No controlling cycle, however sophisticated, can succeed without the commitment of people. The shift from volume- and growth-driven incentives to margin- and liquidity-driven metrics was perhaps the most radical aspect of our transformation. Success depended on:

- Empowering cross-functional teams to make decisions and take ownership of results
- Rewarding data-driven, risk-aware behavior- not just sales figures
- Fostering a culture of open communication and regular scenario planning

A major learning was that regular, structured feedback sessions- where staff could discuss what worked and what did not- were as important as the technical aspects of the dashboard itself.

5. *Unexpected Outcomes and Lessons*

Some of the most valuable lessons emerged not from planned initiatives, but from the unexpected consequences of crisis adaptation:

- *Staff Engagement Increased:* As teams gained confidence in the new tools and processes, overall job satisfaction and retention improved. People felt they were "in control" again, not just reacting to chaos.
- *Customer Relationships Evolved:* Tougher credit policies were accepted by reliable partners, who recognized the industry-wide need for risk management. Short-term pain led to long-term trust and more balanced negotiations.
- *Market Share Opportunities:* While the bankruptcy of a dominant client was a short-term disaster, it created opportunities for competitors (like Epicentr K) to innovate, expand, and capture share- provided they could manage the risks.

6. *Strategic Implications for Retailers*

Based on the results and my practical experience, several strategic recommendations emerge.

- *Invest in Digital Tools, but do not Neglect People:* Technology enables speed and transparency, but only people deliver change.
- *Embrace Scenario Planning as an ongoing Discipline:* Make it a weekly habit, not a crisis-only reaction.
- *Diversify Portfolios and Cap Exposure to Dominant Clients:* Set strict upper limits and review monthly.
- *Link Payment Terms and Assortment Strategies To Real-Time Risk Assessment:* Be prepared to adjust both rapidly, even at the expense of short-term sales.
- *Benchmark Internationally, But Localize Innovations:* Learn from global leaders, but tailor solutions to local market volatility and constraints.

7. *Opportunities and Threats: Looking Ahead*

Opportunities:

- Further adoption of AI for predictive analytics, especially in demand planning and risk management.
- Development of omni-channel strategies and e-commerce, which proved more resilient during physical store disruptions.
- Deeper regional collaboration for shared learning and benchmarking.

Threats:

- Ongoing geopolitical and macroeconomic instability.
- Talent drain and continued staff shortages in analytics and controlling.
- Dependence on global supply chains and currency fluctuations.

8. *Contribution to Theory and Practice*

This article not only supports, but extends, the existing literature on financial controlling in emerging markets. It provides a concrete, practitioner-driven framework for adaptive management, grounded in the unique challenges of Ukraine and the wider CEE region. The insights and best practices described here can

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inform both further academic research and immediate managerial action, especially in times of high uncertainty

VII. Conclusions & Implications

This study set out to investigate the evolution and practical impact of adaptive financial controlling in the context of extreme volatility and crisis, using the Ukrainian retail market as both laboratory and proving ground. Through a combination of operational data analysis, comparative benchmarking, and first-hand management experience, I have developed, implemented, and evaluated a practitioner-oriented adaptive controlling cycle. The results offer actionable lessons for retailers, financial managers, and scholars seeking to understand or thrive in turbulent environments.

1. *Key Findings: The Power of Adaptivity*

The research confirms that traditional financial controlling frameworks, rooted in annual budgeting and post-factum variance analysis, are no longer sufficient in environments where disruption is frequent and often severe. The shift to an adaptive model- anchored in real-time data, weekly scenario planning, cross-functional crisis teams, and flexible risk mitigation- enabled my team to:

- Reduce receivables DSO and bad debt risk by over 30%
- Streamline inventory turnover and cut slow-moving SKUs, boosting liquidity and margin
- Restore lost turnover within a single quarter after the exit of a dominant client
- Improve the resilience and engagement of staff in the face of adversity

Crucially, these improvements were achieved not simply through technology, but by transforming management processes and empowering people.

2. *Managerial Implications: Practical Recommendations*

For Practitioners, Several Clear Implications Emerge:

- *Invest In Real-Time Data Integration and BI Dashboards*

Timely, accurate information is the bedrock of rapid, effective decision-making. Managers must champion both the systems and the culture needed to trust and use digital tools.

- *Institutionalize Scenario Planning*

Crisis cannot be treated as an occasional aberration; "what if?" reviews must become a core routine for every commercial and financial team.

- *Diversify Client And Product Portfolios*

Relying on a single dominant customer, or an over-broad range of slow-moving SKUs, creates unacceptable risk. Portfolio analysis and rebalancing must be regular and disciplined.

- *Link Payment and Assortment Policies to Risk Signals*

Move away from blanket terms and toward dynamic, data-driven rules- tightening or loosening conditions based on real-time client performance.

- *Foster a Culture of Empowerment and Cross-Functional Collaboration*

The best results come when information and authority are shared across departments, and when staff are trained to anticipate, not just react to, risks.

3. *Theoretical Implications and Contributions*

The adaptive controlling cycle articulated here extends the literature on crisis management and financial controlling in several ways.

- It demonstrates the practical viability of shifting from static, hierarchical models to flexible, scenario-based approaches, even in organizations with limited resources.
- It provides an original, empirically-grounded dashboard framework, emphasizing not just technology but the integration of people and process.
- It highlights the value of benchmarking and "shared learning" across markets with similar volatility- especially within the CEE region.

4. *International Perspective*

While this study is rooted in the Ukrainian experience, its findings have broader relevance. The cross-country comparison with Poland and Lithuania suggests that adaptive controlling practices can offer competitive advantage even in more mature markets, particularly as global volatility increases. At the same time, local context matters: the willingness to experiment and adapt quickly, seen in Ukraine, may be harder to replicate in more hierarchical or risk-averse environments.

Internationally, retailers and manufacturers are already grappling with the same forces- supply chain disruptions, geopolitical risk, currency swings- that shaped this research. The principles and practices outlined here can thus inform both global players and local champions seeking greater resilience.

5. *Limitations and Future Research*

As with any case-driven, practice-based study, certain limitations apply:

- The findings are most directly relevant to organizations of similar size, market structure, and exposure to crisis risk as those analyzed here.
- While operational data was triangulated and supplemented with industry benchmarks, some conclusions rely on personal management experience.

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- Not all innovations could be rigorously controlled or benchmarked due to the fast-moving, high-pressure context.

Future Research should Build on this Foundation by:

- Testing the adaptive controlling cycle in other emerging markets, industries, and crisis scenarios
- Investigating the long-term effects of digital transformation on organizational resilience
- Exploring the interplay between adaptive controlling and other strategic functions, such as supply chain or human resource management

6. *Final Reflections: Toward Resilient, People-Centered Controlling*

Perhaps the most profound lesson of this journey is that resilience is as much a human quality as an organizational one. Technology, process, and data are critical- but without engaged, empowered teams, no dashboard or scenario plan will be enough. In the end, the capacity to adapt, learn, and collaborate at speed is the defining competitive advantage in times of crisis.

The adaptive controlling cycle developed and refined through crisis has enabled my organization- and can enable others- to navigate shocks, seize new opportunities, and emerge stronger from adversity. It is my hope that these findings will serve not only as a practical manual for managers, but as a stimulus for further academic exploration of what it means to manage, control, and thrive under uncertainty.

References Références Referencias

1. Anthony, R. N., & Govindarajan, V. (2017). *Management Control Systems* (14th ed.). McGraw-Hill Education. pp. 22–38.
2. Boin, A., & 't Hart, P. (2022). Managing crisis: Response strategies in turbulent times. *Public Management Review*, 24 (3), 299–318.
3. Deloitte. (2023). *The Future of Retail: Digitalization and Resilience in CEE*. Deloitte Insights. pp. 5–21.
4. Drury, C. (2022). *Management and Cost Accounting* (11th ed.). Cengage Learning. pp. 45–52, 128–134.
5. European Retail Academy. (2023). *Retail Resilience in Eastern Europe: Trends and Innovations*. Retrieved from https://www.european-retail-academy.org.
6. EY. (2023). *Retail Digital Transformation in Emerging Markets*. EY Global Reports. pp. 14–32.
7. Euromonitor International. (2024). *Retailing in Ukraine: Market Data and Analysis*. pp. 67–70.
8. GfK. (2023). *Ukraine Consumer Market: Home Appliances 2022–2024*. GfK Research Reports. pp. 23–28.
9. GfK. (2024). *CEE Retail Innovation Barometer*. GfK Market Intelligence. pp. 15–20.
10. Horváth, P. (2021). *Controlling*. Vahlen. pp. 66–85.
11. Kovalchuk, T. (2022). Financial controlling in times of crisis: The CEE experience. *Journal of Eastern European Economics*, 60 (6), 471–486.
12. McKinsey & Company. (2023). *Retail Transformation in Poland and Ukraine*. McKinsey Insights. pp. 10–18.
13. PwC. (2023). *CEE Retail & Consumer Report*. PricewaterhouseCoopers. pp. 21–33.
14. PwC. (2023). *Artificial Intelligence in Retail: The Next Frontier*. PricewaterhouseCoopers. pp. 41–53.
15. Williams, J., & Dobson, K. (2023). Adaptive management in retail supply chains during crises. *International Journal of Retail & Distribution Management*, 51(4), 397–410.
16. Deloitte. (2024). *Retail Risk Management in CEE: Best Practices*. Deloitte Insights. pp. 24–40.
17. World Bank. (2023). *Economic Resilience in Ukraine: Lessons for CEE*. World Bank Policy Paper. pp. 34–48.
18. European Commission. (2022). *Digital Skills and Transformation in the EU Retail Sector*. pp. 51–59.
19. EY. (2022). *Omnichannel Retail: Trends in CEE*. EY CEE Retail Reports. pp. 9–22.
20. Euromonitor International. (2023). *Poland Retailing: Industry Overview*. pp. 38–46.
21. Biedronka Group. (2023). *Annual Report*. Retrieved from https://www.biedronka.pl/raporty.
22. GfK. (2024). *Inventory Turnover in Home Appliances: Eastern Europe*. GfK Custom Analytics. pp. 8–16.

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