



Trade-offs and Transformation: The Dual Impact of Chief Executive Officer Leadership and Advanced Budgeting on Financial vs. Non-Financial Performance under Uncertainty

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Abstract

Background: Nowadays, emerging market firms face unpredictable conditions shaped by crises such as COVID-19 and complex regulations. In these circumstances, traditional cost-based accounting is often too rigid to support long-term objectives. Adaptive strategies that integrate leadership, budgeting, and strategic cost accounting are essential for sustained performance.

Objective: This study investigates how perceived environmental uncertainty, strategic cost accounting, and advanced budgeting practices, which are influenced by the leadership traits of chief executive officers, affect firm performance in Thailand.

Methodology: Grounded in Contingency and Upper Echelons Theories, this study adopts a quantitative, cross-sectional survey design. We surveyed 127 Chief Financial Officers (CFOs) drawn from a population of 744 listed firms (2019–2021) using purposive sampling. Primary survey data ($n = 127$) were combined with secondary archival data from Form 56-1 One Reports to capture financial and non-financial indicators. We estimated relationships using PLS-SEM with bootstrapping to test direct and mediating effects.

Result: The results show that perceived environmental uncertainty significantly increases cost control, budgeting intensity, and leadership centralisation ($p < 0.05$). These mechanisms enhance financial performance but are weakly or negatively associated with non-financial outcomes such as innovation and stakeholder engagement. CEO characteristics also show a dual pattern, strengthening financial results while reducing non-financial performance when control-oriented

styles prevail.

Conclusion: Leadership and advanced accounting practices are essential for financial discipline, but not sufficient on their own. Broader organisational goals, such as stakeholder value and adaptability, require leadership styles and control systems that strike a balance between short-term efficiency and long-term resilience.

Unique Contribution: The study provides evidence from Thailand on how cost strategy, budgeting, and CEO characteristics shape firm performance under uncertainty. It offers leadership-aware, practical guidance for emerging markets facing volatility.

Key Recommendation: Move from rigid budgets to adaptive budgeting with real-time data, feedback loops, and rolling forecasts. Integrate leadership development and participative governance with cost strategies to achieve not only financial stability but also innovation, learning, and stakeholder trust.

Keywords: Advanced management accounting; environmental uncertainty; cost strategy; budgeting; CEO characteristics; business efficiency.

Introduction

Firms in emerging markets have faced significant disruptions from external shocks, a complex regulatory environment, and economic uncertainty, particularly during the COVID-19 pandemic (2020–2021). These conditions have revealed the shortcomings of legacy accounting systems and demonstrated to businesses that they must adopt more adaptable, real-time financial controls. Hence, the management of many companies has adopted sophisticated costing and budgeting techniques to ensure better decision-making processes and maintain steady operations in a changing environment (Jaiswal et al., 2025; Rachmawati et al., 2025).

From a modern accounting perspective, Strategic Cost Accounting (SCA) and Advanced Budgeting Techniques (ABT) are currently considered important in ensuring effectiveness by enabling organisations to react quickly to uncertainty. Cost accounting structures are more effectively managed with CAS, and the organisational results are flexibly planned and kept up to date with ABT. These approaches do not exclude the possibility and practicability of long-term adjustments (Daowadueng, 2024; Okeke et al., 2024).

However, without proper leadership and careful planning, these approaches may lead to an excessive focus on financial control, while important aspects such as developing new ideas or maintaining relationships with stakeholders may be neglected (Ghazalat et al., 2025; Pangaribuan et al., 2024). Additionally, leadership plays a crucial role in how institutions navigate uncertainty and implement these accounting practices. Executive characteristics – such as their decision-making discretion, experience, and ownership position – play a role in shaping how firms perceive the environment and structure control systems (Hambrick et al., 1984; Nwafor et al., 2025).

To address these research gaps, this study examines the impact of perceived environmental

uncertainty, cost accounting strategy, advanced budgeting, and CEO leadership characteristics on firm performance among companies listed on the Stock Exchange of Thailand. Drawing on theories, the research aims to explain how internal capabilities and leadership traits mediate the relationship between external conditions and organisational outcomes. The study employs Balanced Scorecard indicators to capture both financial and non-financial performance, offering practical insights for governance and control system design (Živković et al., 2025; Adams et al., 2005).

Theoretical Framework

This study is based on Contingency theory (Van de Ven et al., 1985) and Upper Echelons Theory (Hambrick et al., 1984) by integrating four key concepts: Perceived Environmental Uncertainty (PEU), Cost Accounting Strategy (CAS), Advanced Budgeting Techniques (ABT), and CEO characteristics, which are behavioural and structural drivers of both financial and non-financial business performance, to expand the study results from past research gaps, with the connections reflected in 13 hypotheses.

Perceived Environmental Uncertainty (PEU)

Perceived Environmental Uncertainty (PEU) refers to executives' perceptions of external turbulence that shape planning and information use in organisational management (Rachmawati et al., 2025). It is operationalised with four facets: ME = *Market Environment uncertainty* (e.g., demand, price, technology shifts), PT = *Policy/Regulatory Turbulence* (laws, standards, compliance change), CO = *Competitive Intensity* (rival actions/new entry), and SI = *Supply Instability* (input availability/lead-time shocks). Organisations facing higher PEU typically rely more on non-financial forecasting data and adopt flexible responses (Almheiri et al., 2025; Živković et al., 2025).

Hypotheses:

H1: PEU → CAS (Cost Accounting Strategy)

H2: PEU → ABT (Advanced Budgeting Techniques)

H3: PEU → CEO_C (Chief Executive Officer characteristics)

Cost Accounting Strategy (CAS)

Cost Accounting Strategy (CAS) comprises accuracy- and efficiency-oriented approaches—activity-based costing (ABC), target costing (TC), and kaizen costing (KAI)—to reduce non-value-added costs, increase competitiveness, and adapt to uncertainty (Daowadueng, 2024). CAS informs budgeting design and influences both financial and non-financial outcomes.

Hypotheses:

H4: CAS → ABT

H5: CAS → Non-Financial Business Efficiency (B_E)

H6: CAS → Financial Business Efficiency (B_F)

Advanced Budgeting (ABT)

Advanced Budgeting (ABT) refers to Advanced Budgeting. ABT denotes planning and monitoring practices that update frequently and respond to change, including activity-based budgeting (AB) and zero-based budgeting (ZB) (with rolling forecasts and continuous variance review) (Hongpukdee et al., 2024; Al Jasimee et al., 2024). ABT directly affects performance and can transmit the effects of uncertainty to outcomes.

Hypotheses:

H7: ABT → Non-Financial Business Efficiency (B_E)

H8: ABT → Financial Business Efficiency (B_F)

H12: PEU → B_E through ABT

H13: PEU → B_F through ABT

CEO Characteristics (CEO_C)

CEO Characteristics (CEO_C) refers to CEO Characteristics. CEO_C captures leadership attributes that shape control choices and results (Hambrick et al., 1984; Gupta, 2025): CEO_E = education, CEO_T = tenure, CEO_W = work experience, CEO_M = management style (centralisation vs participation), and CEO_O = ownership/power. These traits influence how tools such as ABT are deployed and how trade-offs are managed.

Hypotheses:

H9: CEO_C → ABT

H10: CEO_C → Non-Financial Business Efficiency (B_E)

H11: CEO_C → Financial Business Efficiency (B_F)

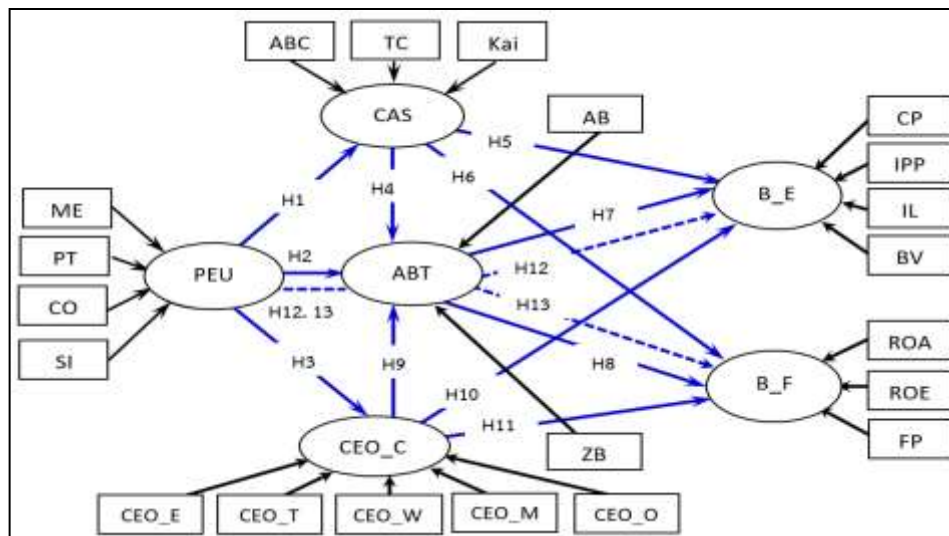
Business Efficiency (BE)

Business Efficiency (BE) refers to Business Efficiency. BE is the organisation's ability to turn resources into worthwhile results (Živković et al., 2025), assessed on two dimensions:

- B_E (*Non-Financial Business Efficiency*): CP = *Customer Performance* (e.g., satisfaction/retention/service quality), IPP = *Internal Process Performance* (cycle time/defects/reliability), IL = *Innovation & Learning*, BV = *Brand Value*.
- B_F (*Financial Business Efficiency*): ROA = *Return on Assets*, ROE = *Return on Equity*, FP = *Financial Performance* (composite/index).

This multidimensional view follows a balanced-scorecard logic that links customer, process, and learning capabilities to financial outcomes.

Conceptually, the model explains how external turbulence shapes internal control choices and leadership behaviour, and how these translate into performance. Perceived environmental uncertainty (PEU) influences firms' selection and use of cost accounting and budgeting systems, with executive attributes serving as a moderating factor.



Source: Compiled by the author

Figure 1 Conceptual framework and hypotheses (H1–H13).

Notes: Solid arrows denote significant paths ($p < 0.05$); dashed arrows denote weak or non-significant paths.

As illustrated in Figure 1, Perceived Environmental Uncertainty (PEU) consists of four facets—Market Environment (ME), Policy/Regulatory Turbulence (PT), Competitive Intensity (CO), and Supply Instability (SI)—which collectively influence the adoption of Cost Accounting Strategies (CAS: ABC, TC, KAI), Advanced Budgeting Techniques (ABT: AB, ZB, rolling forecasts), and CEO Characteristics (CEO_E, CEO_T, CEO_W, CEO_M, CEO_O). Performance outcomes are represented by Non-Financial Efficiency (B_E: CP, IPP, IL, BV) and Financial Efficiency (B_F: ROA, ROE, FP).

Research Methods

Guided by established SEM principles and theoretical foundations (Hair et al., 2014; Hambrick et al., 1984; Van de Ven et al., 1985) and informed by recent empirical work on management accounting under uncertainty (Costantini & Zanin, 2017; Phornlaphatrachakorn & Na-Kalasindhu, 2020; Rachmawati et al., 2025), this study examined the relationships in the proposed theoretical model through five methodological steps.

Step 1: Population and Sampling Frame

The study population consisted of all companies listed on the Stock Exchange of Thailand (SET), totalling 744 firms as of 2021, across seven industry sectors (SET Fact Book, 2021). The sampling frame was the SET company registry, from which Chief Financial Officers (CFOs) were targeted as respondents due to their direct responsibility for financial strategy, cost management, and budgeting.

Step 2: Sample and Data Collection.

A purposive sampling approach was applied, with the inclusion criterion requiring at least four years of experience in financial management. A total of 127 valid responses were obtained, representing approximately 17% of the CFO population of SET-listed firms, which is considered

adequate for SEM analysis (Hair et al., 2014). Data were collected between 2019 and 2021 through an online survey, supplemented by secondary data from Form 56-1 One Reports to capture both financial (B_F) and non-financial (B_E) indicators.

Step 3: Instrument and Reliability

A 5-point Likert-scale questionnaire was developed based on prior literature and adapted to the Thai context. A pilot test with 30 CFOs confirmed clarity and reliability, producing a Cronbach's alpha of 0.98 (>0.70).

Step 4: Data Analysis.

Descriptive statistics (frequency, mean, SD, skewness, kurtosis) were first applied to confirm distributional adequacy. The measurement model was assessed using PLS-SEM in SmartPLS, examining indicator reliability, composite reliability, and discriminant validity. Collinearity was tested ($VIF < 10$), following Hair et al. (2014).

Step 5: Structural Model Testing.

The structural model was evaluated using path coefficients, R^2 , and effect sizes (f^2). Bootstrapping with 5,000 subsamples generated t-values and confidence intervals ($p < 0.05$) to test significance. Both direct and indirect effects were examined, with a focus on the mediating roles of advanced budgeting (ABT) and CEO characteristics (CEO_C) under perceived environmental uncertainty (PEU).

Study Results

Table 1: Descriptive statistics of variables

Variables	Mean	MIN	MAX	S.D.	Kurtosis	Skewness
ABC	2.953	1	5	1.623	-1.617	0.089
TC	3.874	1	5	1.431	-0.008	-1.179
KAI	3.165	1	5	1.731	-1.725	-0.185
ME	3.48	1	5	1.79	-1.578	-0.533
PT	3.205	1	5	1.77	-1.799	-0.151
CO	3.118	1	5	1.641	-1.663	-0.105
SI	3.095	1	5	1.734	-1.731	-0.129
AB	2.402	1	5	1.729	-1.359	0.679
ZB	3.087	1	5	1.8	-1.828	-0.198
CEO_E	1.709	1	3	0.631	-0.652	0.322
CEO_T	3.205	1	4	1.057	-1.096	-0.748
CEO_W	1.252	1	3	0.503	2.791	1.885
CEO_M	1.787	1	2	0.411	0.021	-1.422
CEO_O	1.591	1	2	0.494	-1.891	-0.373
CP	9.831	-130.522	82.271	29.791	4.491	-1.452
IPP	27.402	0.881	247.202	40.392	9.162	2.842
IL	3.201	1	5	1.551	-1.471	-0.401
BV	3.222	1	5	1.353	-0.901	-0.47
ROA	0.66	-0.45	0.401	0.121	2.341	-0.902
ROE	0.342	-0.231	0.221	0.081	0.702	-0.671
FP	0.671	-3.852	3.67	1.042	4.461	-1.034

Source: Compiled by the authors

Table 1 summarises the distributional characteristics of the study variables and provides a basis for assessing data adequacy for PLS-SEM analysis. Among cost-accounting strategies, Target Costing (TC) records the highest mean (3.874) and Activity-Based Budgeting (AB) the lowest (2.402), suggesting that activity-based budgeting was the least adopted technique during the observation period. Kaizen Costing (KAI) and Zero-Based Budgeting (ZB) show substantial dispersion (S.D. > 1.7), indicating heterogeneous implementation across firms.

For perceived environmental uncertainty (PEU), Market Environment (ME) uncertainty registers the highest mean (3.48), while Policy/Regulatory Turbulence (PT) exhibits the greatest variability (S.D. = 1.77), reflecting uneven regulatory pressure. CEO characteristics (CEO_C) also vary: CEO Work Experience (CEO_W) is positively skewed (1.885) with high kurtosis (2.791), implying a small subset of highly experienced executives, whereas CEO Management Style (CEO_M) is negatively skewed (−1.422), indicating a tendency toward centralised decision-making.

For non-financial outcomes (B_E), Internal Process Performance (IPP) exhibits the widest dispersion (mean = 27.402; kurtosis = 9.162), and Customer Performance (CP) is negatively skewed (−1.452), suggesting that cost pressure may have impacted customer experience. Regarding financial outcomes (B_F), Financial Performance (FP) demonstrates the greatest variability (S.D. = 1.042; kurtosis = 4.461), while ROA and ROE are moderately dispersed and slightly negative, indicating generally low but stable returns across firms.

Preliminary diagnostic checks confirm the dataset's suitability for SEM: all Pearson correlations are below 0.80, outer weights exceed 0.30, and variance-inflation factors ($VIF < 10$) indicate the absence of multicollinearity. Overall, these distributional features validate the reliability and representativeness of the data used in subsequent modelling.

Table 2: Model Predictive Power and Effect Size Summary

Endogenous Construct	R ²	Q ²	Predictor	Effect Size (f ²)
Advanced Budgeting (ABT)	0.708	0.66	PEU	0.327
			CAS	0.079
			CEO_C	0.041
Non-Financial Business Efficiency (B_E)	0.582	0.348	ABT	0.017
			CAS	0.13
			CEO_C	0.253
Financial Business Efficiency (B_F)	0.318	0.197	ABT	0.047
			CAS	0.015
			CEO_C	0.04
Cost Accounting Strategy (CAS)	0.488	0.744	PEU	0.954
CEO Characteristics (CEO_C)	0.535	0.724	PEU	1.152

Source: Compiled by the authors

Table 2 evaluates the model's explanatory and predictive strength prior to path analysis. The coefficients of determination (R²) indicate strong explanatory power for Advanced Budgeting (ABT = 0.708) and Non-Financial Business Efficiency (B_E = 0.582), confirming that Perceived

Environmental Uncertainty (PEU), Cost Accounting Strategy (CAS), and CEO Characteristics (CEO_C) jointly account for substantial variance in these constructs. All Q^2 values exceed zero, validating predictive relevance across the endogenous variables and confirming the model's robustness for forecasting performance outcomes.

Regarding effect sizes (f^2), $PEU \rightarrow CEO_C$ (1.152) and $PEU \rightarrow CAS$ (0.954) represent large effects, underscoring that environmental turbulence has a powerful impact on leadership behaviour and cost-control systems. A moderate influence is observed for $CEO_C \rightarrow B_E$ ($f^2 = 0.253$), highlighting leadership's pivotal yet selective impact on non-financial outcomes. By contrast, smaller effects such as $CAS \rightarrow B_F$ and $ABT \rightarrow B_E$ ($f^2 < 0.1$) suggest that financial discipline may be strengthened at the expense of innovation and stakeholder-related performance.

Overall, Table 2 confirms that the model exhibits substantial explanatory adequacy and predictive validity, capturing the interplay between uncertainty, leadership, and accounting systems in shaping firm performance.

Table 3: Hypothesis Testing Results

Hypothesis	Path	Direct Effect	Indirect Effect	Total Effect	t-statistics	p-value	Result
H1	PEU \rightarrow CAS	0.699	–	0.699 ****	14.036	0	Accepted
H2	PEU \rightarrow ABT	0.555	–	0.555 ****	26.597	0	Accepted
H3	PEU \rightarrow CEO_C	0.732	–	0.732 ****	17.183	0	Accepted
H4	CAS \rightarrow ABT	0.213	–	0.213 **	2.638	0.008	Accepted
H5	CAS \rightarrow B_E	–0.317	–	–0.317 ****	4.908	0	Accepted
H6	CAS \rightarrow B_F	0.136	–	0.136 *	2.233	0.026	Accepted
H7	ABT \rightarrow B_E	–0.134	–	–0.134 ns	1.395	0.163	Rejected
H8	ABT \rightarrow B_F	0.286	–	0.286 *	2.466	0.014	Accepted
H9	CEO_C \rightarrow ABT	0.161	–	0.161 *	2.027	0.043	Accepted
H10	CEO_C \rightarrow B_E	–0.438	–	–0.438 ****	6.473	0	Accepted
H11	CEO_C \rightarrow B_F	0.223	–	0.223 **	2.901	0.004	Accepted
H12	PEU \rightarrow ABT \rightarrow B_E	–	–0.074	–0.629 ns	1.355	0.175	Rejected
H13	PEU \rightarrow ABT \rightarrow B_F	–	0.159	0.714 *	2.275	0.023	Accepted

Source: Compiled by the authors

Note; *Significant 0.05 ($p \leq 0.05$), ** Significant 0.01 ($p \leq 0.01$), *** Significant 0.001 ($p \leq 0.001$) and ns, it's not significant.

Table 3 presents the results of hypothesis testing (H1–H13) using path coefficients, t -values, and significance levels. The findings show that perceived environmental uncertainty (PEU) has strong positive effects on cost accounting strategy (CAS: $\beta = 0.699$, $t = 14.036$, $p < 0.001$), advanced budgeting (ABT: $\beta = 0.555$, $t = 26.597$, $p < 0.001$), and CEO characteristics (CEO_C: $\beta = 0.732$, $t = 17.183$, $p < 0.001$), confirming PEU as a key external driver shaping management responses.

Cost accounting strategy (CAS) positively influences financial performance (B_F: $\beta = 0.136$, $t = 2.233$, $p < 0.05$) and advanced budgeting ($\beta = 0.213$, $t = 2.638$, $p < 0.01$), but has a negative effect on non-financial performance (B_E: $\beta = -0.317$, $t = 4.908$, $p < 0.001$). This suggests that tighter cost control enhances profitability but limits flexibility and innovation.

Advanced budgeting (ABT) strengthens financial results ($\beta = 0.286$, $t = 2.466$, $p < 0.05$) yet shows no significant effect on non-financial performance ($\beta = -0.134$, $t = 1.395$, $p = 0.163$). CEO characteristics (CEO_C) play a dual role—improving financial outcomes ($\beta = 0.223$, $t = 2.901$, $p < 0.01$) while reducing non-financial ones ($\beta = -0.438$, $t = 6.473$, $p < 0.001$)—indicating that directive leadership improves efficiency but restricts learning and stakeholder engagement.

The mediation analysis reveals that PEU has an indirect effect on financial performance through ABT ($\beta = 0.714$, $t = 2.275$, $p < 0.05$), but no significant indirect link to non-financial outcomes ($\beta = -0.629$, $t = 1.355$, $p = 0.175$). Overall, the model highlights that under uncertainty, leadership and budgeting mechanisms reinforce financial resilience but may weaken innovation and broader organisational sustainability.

Discussion of Findings

This study examines how perceived environmental uncertainty (PEU), CEO characteristics (CEO_C), cost accounting strategies (CAS), and advanced budgeting (ABT) influence firm performance by elucidating the mechanisms that prioritise short-term resilience over capability building. Rather than restating coefficients, the discussion focuses on why control systems tend to tilt managerial attention toward financial protection, while leaving non-financial objectives vulnerable (Rachmawati et al., 2025; Costantini & Zanin, 2017).

Regarding CAS and non-financial outcomes, under heightened uncertainty, diagnostic cost controls and variance-driven evaluations direct managerial attention to measurable efficiencies, which compress organisational slack and reduce psychological safety. This substitution effect curbs experimentation, learning, and service quality even when margins improve. Typical pathways include supplier squeeze that raises complaint rates, training freezes that erode service recovery, and throughput pressure that dampens frontline discretion. These findings are consistent with studies showing that strict cost accounting and performance evaluation practices, while enhancing efficiency, often suppress creativity and knowledge sharing (Hongpukdee et al., 2024; Daowadueng, 2024). Such tendencies are further intensified in concentrated ownership structures where short reporting cycles heighten financial control bias (Phornlaphatrachakorn & Na-Kalasindhu, 2020; Ghazalat et al., 2025).

Furthermore, when examining ABT and the profitability–innovation gap, advanced budgeting stabilises cash flows through rolling forecasts, zero-based reviews, and tight monitoring. However, the non-financial lift remains limited unless budgets are used interactively to challenge assumptions, surface options, and reallocate resources quickly. When ABT is implemented primarily for compliance rather than learning, numbers may change, but choices remain static. Similar to findings in participative budgeting research, limited interactivity reduces motivation and restricts cross-functional search (Al Jasimee et al., 2024; Pangaribuan et al., 2024). These mechanisms explain why ABT supports profitability but contributes little to innovation or stakeholder trust (Okeke et al., 2024; Le et al., 2025).

In addition, the moderating role of CEO characteristics provides critical insight. Control-oriented leaders strengthen the diagnostic use of CAS and ABT, sharpening execution but weakening customer and learning outcomes, particularly in highly hierarchical workplaces (Adams et al.,

2005; Gupta, 2025). In contrast, participative CEOs facilitate interactive learning through delegation and team-based governance (Hambrick et al., 1984; Kalkhouran et al., 2017). This moderating mechanism aligns with upper-echelons theory, suggesting that leadership orientation determines how management accounting systems are enacted under uncertainty (Van de Ven et al., 1985; Nwafor et al., 2025).

From a theoretical perspective, this study advances knowledge in three ways. First, it refines contingency arguments by showing that the mode of control use (diagnostic vs. interactive) determines whether uncertainty strengthens or weakens performance outcomes (Costantini & Zanin, 2017). Second, it extends upper-echelons reasoning by linking CEO orientation to system enactment, clarifying why identical accounting tools yield divergent non-financial results (Hambrick et al., 1984; Almheiri et al., 2025). Third, it introduces an ambidexterity lens, explaining how diagnostic control fosters exploitation while interactive control preserves exploration, thus balancing resilience with innovation capability (Rachmawati et al., 2025; Živković et al., 2025).

Building on these insights, the implications for practice are significant. Firms should integrate strategic cost accounting with adaptive budgeting by embedding customer, process, and learning metrics alongside financial ones (Phornlaphatrachakorn & Na-Kalasindhu, 2020). Operating ABT in interactive mode with protected innovation budgets and supplier development programmes can help counteract cost-induced quality decline. Moreover, establishing participative governance systems and bounded frontline discretion can strengthen engagement and adaptability. These practices align with balanced scorecard principles that tie leadership behaviour to stakeholder-oriented performance (Živković et al., 2025).

Finally, in considering boundary conditions, the effects are most pronounced in concentrated ownership structures, centralised governance, and crisis contexts. This aligns with evidence that environmental turbulence amplifies the influence of managerial discretion on performance (Le et al., 2025; Almheiri et al., 2025). While this study focuses on Thailand from 2019 to 2021, similar mechanisms may also operate in other emerging economies experiencing digital or regulatory disruptions.

Conclusions and Recommendations

This study demonstrates that both internal organisational dimensions (CEO characteristics and sophisticated budgeting) are crucial for company performance, while perceived environmental uncertainty (PEU) is the primary external driver enabling adaptive strategies through cost management systems and leadership responses. The analysis reveals that budgeting systems are more effective at enhancing measurable financial outcomes than non-financial or stakeholder-related goals. CEO characteristics exert a dual influence—strengthening financial results but reducing non-financial outcomes such as innovation and stakeholder engagement under control-oriented leadership styles—showing that leadership orientation, rather than its mere presence, determines how performance trade-offs unfold in uncertain environments.

Key Strategic Recommendations

1. Adaptive Budgeting Based on Environmental Uncertainty (PEU → ABT)

Companies confronted with extreme PEU, characterised by the presence of factors such as unstable markets, constantly changing regulations, and supply issues that make production scheduling nearly impossible, need more flexible ways to budget if they are to remain adaptable. Traditional tight budgets cannot reflect new situations; they merely recapitulate what has already been done in an endless loop, resulting in considerable waste and inefficiency. Therefore, companies need to adopt flexible and adaptive management practices by moving from static annual budgets to advanced budgeting and adaptive allocation models. This involves incorporating quarterly updated rolling forecasts, underpinned by real-time sales dashboards (e.g., +10% demand, +15% logistics costs), to enable CFOs to shift capital and create risk buffers in the face of external shocks.

2. Cost Accounting Method Selection Based on Strategic Fit (PEU → CAS)

In uncertain environments, companies should select the cost accounting methods that best align with their actual operations, rather than applying one-size-fits-all controls. A company like that probably does not keep a very tight grip on its costs. In addition, budgets should be used as a tactical means of accomplishing organisational objectives, not merely as a blunt instrument for cost control. For example, companies with high product diversity may benefit from activity-based costing (ABC), while those focused on efficiency could use target or kaizen costing. Budgets should function as strategic tools to support organisational goals, rather than being reduced to mechanisms for cost-cutting alone.

3. CEO Leadership as a Key Driver Across All Outcomes (CEO_C → B_F, B_E)

CEO characteristics can influence both financial and non-financial performance, although they often do so through different channels. Leaders with a strong control orientation tend to improve financial outcomes such as profitability and operational efficiency. However, this same leadership style may attribute lower scores to innovative strides. It might also undermine people-related performance, including employees' commitment to their jobs, as well as encourage hardships in organisational learning. This juxtaposition highlights the significance of a leadership style over merely occupying a leadership position. Given this, companies could invest in strategic financial leadership development for both CEOs and CFOs. Through such programmes, executives can be taught to think long-term and to view all stakeholders in the enterprise as potentially valuable resource persons. Many companies now utilise charts and business intelligence tools to monitor financial and non-financial indicators in real-time simultaneously. These systems help decision-makers balance their own views of reality, and in some cases, even know more about market conditions than analysts, especially when those conditions are uncertain.

Limitations and Future Research

The conclusions of this study are limited by Thailand's regulatory, economic, and ownership context, as well as the unique period of data collection between 2019 and 2021, which coincided with the COVID-19 pandemic. This environment likely accentuated short-term financial behaviour and constrained generalisability to other economies or post-crisis periods. Caution should therefore be exercised when applying these findings to settings beyond the Thai context. Future research should employ longitudinal and comparative approaches to capture how leadership orientation and adaptive control systems evolve after crises. Expanding the analysis to

other ASEAN or emerging markets could provide deeper insights into how variations in governance, culture, and regulation influence the balance between financial performance, innovation, and stakeholder value.

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