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Research Article

The Role of Strategy in Competitive Performance: The Case of Manufacturing Firms

Le Thai Phong[1], Lê Thị Thu Thuỷ[2], Nguyễn Thị Hạnh[2], Nguyễn Thị Thu Trang[2], Nguyễn Hồng Vân[2], Nguyễn Hồng Quân[2], Trần Minh Thu[2], Trần Thị Thu Thuỷ[2], Đinh Ngọc Lâm[2], Nguyễn Thị Dung Huệ[2], Lê Quang Sáng[2], Hoàng Thị Hoà[2], Nguyễn Thị Sofia[2], Vũ Thị Kim Oanh[2], Chu Phương Anh[2]

[1]Lecturer, Foreign Trade University

[2]Lecturer & researcher, Foreign Trade University

Abstract:

In the contemporary global economy, the manufacturing sector remains a critical engine for economic growth, innovation, and job creation, particularly in developing nations. However, maintaining a competitive edge in an era of rapid technological change and globalized supply chains requires more than just operational efficiency; it demands strategic clarity, coherence, and execution. This study empirically investigates the precise relationship between strategy formulation/implementation and the competitive performance of manufacturing firms. Utilizing a rigorous quantitative methodology, data were drawn from the third round of the international High-Performance Manufacturing (HPM) project, a comprehensive benchmark study encompassing 3,155 firms across five industrialized nations- Germany, Italy, Japan, South Korea, and the United States - operating in the electronics, machinery, and transportation sectors. The research employed a series of statistical techniques, including reliability analysis (Cronbach's Alpha), exploratory factor analysis (EFA), Pearson correlation, and linear regression, to test the central hypothesis. The findings robustly confirm a statistically significant and positive relationship ($\beta = 0.448$, $p < 0.001$) between a firm's strategic orientation and its competitive performance. This indicates that manufacturers with clearly defined, actively pursued, and effectively implemented strategies demonstrate superior performance across a wide spectrum of key metrics, including unit cost, product quality, delivery reliability, operational flexibility, and innovation, compared to their rivals. The study concludes that strategic management is not a peripheral administrative function but a core determinant of competitive advantage and sustained success in the manufacturing sector. Practical recommendations and strategic roadmaps are offered, particularly for emerging manufacturing landscapes like Vietnam, emphasizing the critical need for integrated strategic planning, robust implementation frameworks, and the seamless alignment of manufacturing activities with overarching business goals to enhance market position and ensure long-term viability.

Keywords: manufacturing strategy, competitive performance, strategic implementation, strategic formulation, quantitative analysis, firm performance, global manufacturing, Vietnam.

1. Introduction

The global economic architecture is fundamentally supported and dynamically shaped by the interplay of key sectors, including agriculture, industry, construction, services, and manufacturing. Over recent decades, a significant structural shift has been observed in both developed and developing economies, with the service sector's share expanding while agriculture's proportion gradually declines (World Bank, 2020). Despite this undeniable trend, manufacturing continues to play a pivotal and irreplaceable role in driving substantive economic development, especially in emerging economies. It is the primary sector that generates tangible, value-added goods that are essential inputs for other industries and critical for enhancing the quality of human life. The World Trade Organization (2021) underscores this fundamental importance, noting that merchandise trade constitutes a dominant 80% of global trade, dwarfing the share of services. Echoing this classical view, the esteemed economist Nicholas Kaldor posited a strong positive correlation between a nation's GDP growth and the development and sophistication of its manufacturing sector (Kaldor, 1967), a relationship often referred to as Kaldor's Growth Laws. Furthermore, the sector is a massive employment generator, providing diverse job opportunities across all educational levels and skill sets. As Andrew Liveris, former CEO of Dow Chemical and head of the Manufacturing for Growth project, compellingly concluded, "Manufacturing adds value, creating more jobs than any other sector, driving innovation throughout every segment of the society and delivering consumer solutions—all of which are the keys to long-term, sustainable economic growth" (World Economic Forum, 2012).

The 2008 global financial crisis profoundly impacted economic development and human welfare on an unprecedented scale, disrupting business activities, freezing credit markets, and forcing widespread organizational downsizing and restructuring. This period of economic turmoil starkly highlighted the inherent vulnerability of the service sector during severe downturns, as consumers

and businesses became intensely cautious with discretionary spending. In contrast, the demand for essential manufactured goods, though impacted, proved more resilient, prompting a renewed and sober focus on a strong manufacturing base as a sustainable and stable driver of holistic economic recovery and long-term resilience.

Recognizing manufacturing's enduring centrality, it becomes imperative for both scholars and practitioners to identify clear and actionable pathways for enhancing the organizational performance and competitive standing of manufacturing firms. A central question emerges: Can formulating and implementing a robust, coherent strategy be a primary and effective solution? Strategy, in this context, serves as an organization's compass and roadmap, guiding it through uncertain terrain toward its long-term goals and objectives. It enables corporations to orient their business activities through rigorous environmental analysis and forecasting, allowing them to anticipate change rather than merely react to it. By leveraging internal resources to maximize strengths and minimize weaknesses, companies can proactively capitalize on emerging opportunities and neutralize potential threats (Porter, 1996). Moreover, a well-articulated and communicated strategy fosters organizational consensus and unity of purpose, aligning disparate interests and departmental silos toward common objectives, thereby amplifying the firm's internal capabilities and strengthening its competitive positioning in an increasingly globalized and integrated marketplace (Ketchen et al., 1996).

Despite its purported importance, anecdotal evidence and prior research suggest that many manufacturing corporations, particularly small and medium-sized enterprises (SMEs), inadequately prioritize systematic strategic formulation and implementation, often favoring a narrow, short-term focus on product development under the assumption that a superior product alone guarantees market success. While a great product is undoubtedly a powerful and necessary asset, it is insufficient in an increasingly crowded and sophisticated marketplace. When multiple competitors offer high-quality, functionally similar products, a unique, well-crafted, and decisively executed strategy becomes the critical differentiator that effectively connects the right product with the right customer at the right time and through the right channels.

Based on these compelling realities, this research conducts a rigorous empirical investigation into "The relationship between strategy and competitive performance: The case of manufacturing firms." The study aims to move beyond theoretical discourse to clarify and quantitatively assess the impact of strategy on the organizational performance of manufacturers, leading to evidence-based, actionable recommendations for enhancing competitive prowess. The subsequent sections present a comprehensive literature review, detail the robust research methodology, discuss the findings in depth, and conclude with practical suggestions for practitioners, with a special focus on the dynamic context of Vietnamese manufacturing.

2. Literature Review

2.1. The conceptual foundation of strategy

The concept of strategy, though often abstract and multi-faceted, is universally acknowledged as central to organizational success and longevity. It has been conceptualized, defined, and refined by a multitude of influential scholars over the decades. Rue and Holland (1989, p. 5) provided a foundational description, characterizing strategy as "the way [an organization] will pursue its goals given the threats and opportunities in the environment and its resources and capabilities," a view later supported and expanded upon by Andrews (2008) in his work on corporate strategy. Chandler (1969, p. 13), in his seminal historical analysis, emphasized the process-oriented nature of strategy, defining it more broadly as "the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals." This definition powerfully introduced the critical link between strategy, structure, and resource allocation.

At its very core, strategic management involves selecting and committing to a unique strategic position that a firm can claim and defend as its own (Markides, 1999). This process forces the organization to answer fundamental, existential questions about who its target customers are, what specific products or services it should offer to those customers, and how it can perform these activities more efficiently or effectively than its rivals. Porter (1996), in his highly influential Harvard Business Review article "What is Strategy?", further sharpened this concept by arguing that competitive strategy is inherently about differentiation—it means deliberately choosing a distinct and tailored set of activities to deliver a unique mix of value. The ultimate objective of this deliberate positioning is to achieve a sustained competitive advantage, a state where the benefits of the strategy cannot be easily duplicated or eroded by competitors over time.

Synthesizing these seminal views, strategy can be pragmatically defined as a deliberate and integrated set of actions that provides coherence, direction, and focus for the entire organization, enabling it to achieve and sustain a competitive advantage in its chosen marketplace. This strategic plan is not the sole purview of top management; it requires active involvement and commitment from all organizational levels. While top management is responsible for setting the broad strategic direction and vision, middle and lower management are critical for developing the short-term goals, operational plans, and daily activities that execute this strategy step-by-step. Organizational strategy, therefore, is deeply rooted in the firm's mission and vision; it provides the logical explanation for why an organization performs differently from its peers and serves as the primary mechanism for directing and controlling its performance trajectory (Ketchen et al., 1996). It acts as an essential bridge, guiding the firm's journey from its current state to its desired future state.

2.2. The integrated strategic management process

The strategic management process is best understood as a structured, logical, and continuous sequence of interdependent stages

(Bradford, 2010), where the output of one stage becomes the input for the next. A comprehensive model typically comprises the following phases:

1. **Determination of mission, vision, goals, and objectives:** This initial and foundational step involves clearly defining the organization's core purpose (mission), its aspirational future state (vision), and specific, actionable targets (goals and objectives). To be effective, these goals should adhere to the well-established SMART criteria: they must be Specific (clearly defined), Measurable (quantifiable), Achievable (realistic), Relevant (aligned with the mission), and Time-bound (with a specific deadline).
2. **Environmental analysis:** This phase involves a thorough and systematic scanning of both the external and internal environments to gather intelligence for strategic decision-making.

- *External Analysis:* This utilizes robust analytical tools like PESTEL analysis to understand the macro-environmental factors (Political, Economic, Socio-cultural, Technological, Environmental, and Legal) that are largely beyond the firm's control but can present significant opportunities or threats. At a more industry-specific level, Porter's (1980) Five Forces model provides a powerful framework for assessing the underlying competitive dynamics and profitability of an industry. The five forces are: the threat of new entrants, the bargaining power of suppliers, the bargaining power of buyers, the threat of substitute products or services, and the intensity of rivalry among existing competitors.
- *Internal Analysis:* This focuses on introspecting the firm's internal resources, capabilities, and competencies. Porter's (1985) Value Chain model is instrumental here, as it helps managers identify the primary activities (inbound logistics, operations, outbound logistics, marketing & sales, and service) and support activities (firm infrastructure, human resource management, technology development, and procurement) that create value for the customer. Complementing this, the Resource-Based View (RBV) of the firm, pioneered by Barney (1991), posits that sustainable competitive advantage stems from possessing resources that are Valuable, Rare, Inimitable, and Organized (the VRIO framework). Notably, intangible resources like brand reputation, proprietary knowledge, and unique organizational cultures are often more likely to be sources of sustained advantage than tangible assets. Finally, SWOT analysis (Humphrey, 2005) serves as a synthesizing tool, providing a structured overview by evaluating internal Strengths and Weaknesses against external Opportunities and Threats identified in the previous steps.

3. **Strategic choices and formulation:** Based on the insights garnered from the comprehensive environmental analysis, the firm formulates its strategy across different hierarchical levels:

- *Corporate-level strategy* concerns the overall scope and direction of the entire corporation. It answers the question, "What businesses are we in?" and may involve decisions about diversification, international expansion, acquisitions, or restructuring. Wheelen and Hunger (2001) categorize the general orientation at this level toward Growth, Stability, or Retrenchment (Downsizing).
- *Business-level strategy* defines how the firm will compete successfully in a given product/market area or strategic business unit (SBU). It answers, "How do we compete in this particular business?" Porter (1985) famously outlined three generic strategies: cost leadership (competing on the basis of low cost), differentiation (competing on the basis of unique attributes valued by customers), and focus (serving a narrow, niche market segment either through cost or differentiation).
- *Functional-level strategy* involves developing detailed action plans for specific departments (e.g., marketing, HR, finance, R&D, operations) to support the achievement of the broader corporate and business-level strategies. These strategies are tactical and short-term in nature.

4. **Strategic implementation:** This is the critical phase of translating the formulated strategy into concrete organizational action. It is often cited as the most challenging stage. Activities include establishing annual objectives, devising specific policies, motivating employees, allocating resources, designing an appropriate organizational structure, and creating supportive systems and cultures (Li Chen, 2005). Effective implementation requires unwavering leadership, clear and continuous communication, and sophisticated change management skills to overcome resistance (Mankins & Steele, 2005). It is where strategic plans confront operational reality.
5. **Strategic control and evaluation:** The final, ongoing stage involves monitoring organizational performance, comparing actual results with the strategic goals and objectives, and taking necessary corrective action as needed. This feedback loop is vital for ensuring the strategy remains relevant, effective, and adaptable in a dynamic and often unpredictable business environment. It completes the cycle, often leading to a reassessment of the strategy itself.

2.3. Measuring organizational performance

Organizational performance is a complex, multifaceted concept that reflects a firm's overall efficiency (doing things right) and effectiveness (doing the right things) in achieving its intended outputs and strategic goals (Jon & Randy, 2009). It cannot be captured by a single metric but is best assessed through a balanced combination of financial and non-financial measures, often referred to as a "balanced scorecard" approach.

- **Financial measures:** These traditional indicators are derived from financial statements and are crucial for assessing economic viability. They include key ratios analyzing liquidity (e.g., current ratio, quick ratio), solvency (e.g., debt-to-equity, debt-to-assets), profitability (e.g., gross margin, net income margin, return on assets-ROA, return on equity-ROE), and operational

efficiency (e.g., inventory turnover, accounts receivable turnover). While these measures are objective, widely accepted, and allow for cross-firm comparison, they are historically oriented and may fail to capture the value of intangible assets like human capital or innovation potential (Huselid, 1995). They can also encourage short-termism.

- **Non-financial measures:** In response to the limitations of purely financial metrics, non-financial indicators have gained significant prominence, especially in strategy-performance studies (Neely, 1999). These measures are often leading indicators of future financial performance. They include:
  - *Internal operating measures:* These gauge operational effectiveness and include metrics like production volume, labor productivity, machine productivity, manufacturing cycle time, setup time, scrap rates, on-time delivery performance, and inventory levels (Hendricks et al., 1996).
  - *Employee-oriented measures:* The performance and health of the workforce are critical. Metrics here include employee satisfaction (from surveys), employee turnover and retention rates, absenteeism, safety records (number of accidents), and investments in training and development (Dyler & Reeves, 1995).
  - *Customer-oriented measures:* Since customer satisfaction is the ultimate goal for most firms, these metrics are paramount. They include market share, customer satisfaction scores, customer complaint rates, customer acquisition cost, and customer retention/loyalty rates (Dyler & Reeves, 1995).

Competition within the business community acts as a fundamental and relentless driver for continuous performance improvement. A competitive environment pushes firms to innovate, enhance product and service quality, improve customer service, and control costs relentlessly to not only meet but exceed customer demands, thereby sustaining and strengthening their market position.

2.4. The Strategy-Performance nexus in manufacturing: A review of empirical evidence

The relationship between strategy and performance has been a subject of extensive, albeit sometimes conflicting, research within the management and operations literature, with specific streams focusing on the manufacturing context.

A substantial and persuasive body of literature affirms a positive and significant relationship. Parnell (2010), for instance, conducted a study which found that strategic clarity—the extent to which a firm's strategy is understood and embraced—puts significant impacts on performance. More specifically, his research concluded that, all else being equal, enterprises operating without a coherent and consistent strategic orientation are consistently dominated by other competitors in their respective industries. Gunby Jr (2009) also emphasized the critical importance of selecting and committing to the most appropriate strategic direction, suggesting that this choice is a fundamental preference of any successful entity.

Focusing on the execution side, Ibrahim et al. (2012) confirmed a significantly positive link between strategic execution and the performance of manufacturers in Indonesia. Their research powerfully concluded that the more effectively a strategy is implemented, the better the firm performs. This underscores the adage that a mediocre strategy well-executed is better than a brilliant strategy poorly executed. Beer and Eisenstat (2000) provided valuable diagnostic insights by identifying the "silent killers" of strategy implementation—including top-down or laissez-faire senior management style, unclear strategy, an ineffective senior management team, and poor vertical communication—arguing that confronting these barriers is essential for building a capable organization.

The interplay between strategy and other organizational factors also creates a complex web of influences on performance. Van der Stede, Chow, and Lin (2006) found that strategy and performance measurement systems must be strategically aligned; for example, among firms with similar quality-based strategies, those utilizing less extensive performance measurement systems experienced lower performance, whereas those with more extensive, strategy-aligned systems did not. Leadership is another critical catalyst and moderator. O'Regan, Ghobadian, and Sims (2004-2005) concluded that the success of an entity arises from approaching the strategy development process in the right way, and that leadership is vitally important to the effectiveness of both its formulation and its implementation. Furthermore, Nandakumar, Ghobadian, and O'Regan (2010) demonstrated that organizational structure places significant moderating impacts on the relationship between business-level strategy and the firm's performance. They indicated that the performance of companies is enhanced when they have a structure possessing matching characteristics with its strategy; for instance, a mechanistic structure (characterized by high formalization and centralization) was found to be more helpful in enhancing the financial performance of firms adopting both cost-leadership and differentiation strategies because of its inherent effectiveness in controlling costs and improving coordination.

Conversely, a smaller but influential stream of research suggests a more limited or nuanced role for strategy. André de Waal (2011), in his High-Performance Organization (HPO) research, argued that while having a strategy is a baseline requirement (a "hygiene factor"), it is not a key differentiator for achieving sustainable superior performance. He suggested that in the modern business landscape, other factors like management quality, and organizational culture are more critical. This view finds some support from Harris and Ruefli (2000), who contended that exploiting a firm's unique, hard-to-imitate traits is paramount for outperforming rivals.

Research focusing specifically on manufacturing strategies (often categorized as cost, quality, flexibility, and speed) also yields a complex and sometimes contradictory picture, highlighting the role of context. Rose, Kumar, and Ibrahim (2008), studying Malaysian electrical and electronic firms, found cost-based strategy to be the most significant contributor to organizational performance, whereas the impacts of quality, flexibility, and speed-based strategies were statistically insignificant. This finding, however, conflicts with prior studies conducted in different geographical and temporal contexts. For instance, Chang and Huang (2005) found that cost-based strategy was negatively and significantly correlated to the performance of Taiwanese manufacturing

firms, suggesting that a singular focus on lowering costs might erode profitability in their specific context. Similarly, Rodriguez and Ventura (2003), in a survey of 120 Spanish manufacturing companies, stated that those executing cost-based strategy showed lower performance than those emphasizing innovation and differentiation. On the other hand, Swamidass and Newell (1987) argued that manufacturing flexibility is positively linked to the firm's performance, especially in innovation-oriented and uncertain markets.

In summary, while the strength, direction, and nature of the relationship can vary by context, industry life-cycle stage, and the specific type of strategy employed, the preponderance of empirical evidence strongly suggests that a well-formulated, appropriately chosen, and effectively implemented strategy is a powerful and indispensable driver for enhancing the competitive performance and ensuring the long-term success of manufacturing firms. This study seeks to add to this body of knowledge with a large-scale, multi-country empirical test.

3. Research Methodology

This study employs a quantitative research method to empirically investigate the hypothesized cause-effect relationship between strategy (independent variable) and competitive performance (dependent variable). The quantitative paradigm is particularly suited for hypothesis testing using deductive reasoning, as it relies on numerical data that can be analyzed using statistically robust methods to achieve standardization, reproducibility, and measurability (Aliaga & Gunderson, 2002).

Research model and hypothesis

The proposed research model is parsimonious and linear, positing competitive performance as a direct function of the firm's strategic capabilities. The single hypothesis guiding this research is:

H_1: Strategy has a positive relationship with competitive performance of manufacturing firms.

Data collection and sample

The data for this study were sourced from the third round of the international High-Performance Manufacturing (HPM) project, a large-scale, cross-national research program led by Professors Roger G. Schroeder and Barbara B. Flynn. The HPM database is a renowned benchmark for studying manufacturing practices and performance. The final sample for this analysis consists of 3,155 manufacturing plants from five economically advanced nations - Germany, Italy, Japan, South Korea, and the United States - operating in three key industries: electronics, machinery, and transportation. Data were collected via a comprehensive and validated questionnaire administered to knowledgeable managers and functional heads in each plant (e.g., Plant Manager, Quality Manager, Production Control Manager), ensuring that responses were provided by informed individuals, thereby enhancing the validity and reliability of the data. The confidentiality of both the firms and the respondents was strictly maintained.

Measures and variables

The core constructs were measured using established multi-item scales from the HPM survey instrument:

- *Strategy (Independent variable - X):* This was measured by 6 items assessing the extent of strategic formulation and implementation. Respondents indicated their level of agreement with statements such as "We have a manufacturing strategy that is actively pursued," and "Our business strategy is translated into manufacturing terms," on a 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree).
- *Competitive performance (Dependent variable - Y):* This was measured by 13 items that required respondents to assess their plant's performance relative to their major competitors on critical dimensions like unit cost of manufacturing, conformance to product specifications, on-time delivery, fast delivery, flexibility to change volume, inventory turnover, cycle time, and product innovativeness. A 5-point Likert scale was used (1 = Poor, at low end of industry to 5 = Superior).

Data analysis plan

The collected data were processed and analyzed using IBM SPSS Statistics 20 software, following a structured and sequential analytical procedure:

1. *Descriptive statistics:* This initial step was used to summarize the sample characteristics (e.g., distribution by country, industry) and describe the basic features of the data (e.g., means, standard deviations) for all variables.
2. *Reliability test:* Cronbach's Alpha coefficient was calculated for each multi-item scale (Strategy and Performance) to assess the internal consistency reliability, ensuring that the items measuring a construct are strongly correlated. A coefficient value of ≥ 0.6 was deemed acceptable for research purposes (Hoang Trong & Chu Nguyen Mong Ngoc, 2005).
3. *Factor analysis:* Exploratory Factor Analysis (EFA) using Principal Component Analysis with Varimax rotation was employed to verify the unidimensionality of the scales, confirm that the items loaded onto the intended constructs (Strategy and Performance), and to purify the scales by removing any items with weak or cross-loadings.
4. *Regression analysis:* A linear regression analysis was performed to test the main hypothesis. The model was specified as: $\mathbf{PER = \alpha_0 + \alpha_1 STR + e_i}$, where PER is competitive performance, STR is strategy, α_0 is the intercept, α_1 is the regression coefficient, and e_i is the error term.

5. *Model validation:* To ensure the robustness of the findings, the analysis was validated using the Average method, whereby composite variables for Strategy (A_STR) and Performance (A_PER) were created by computing the arithmetic mean of their respective items, and the regression was re-run.

Ethical standards in academic research, including honesty, objectivity, confidentiality, and respect for intellectual property, were strictly adhered to throughout the research process, in line with the principles outlined by Shamoo and Resnik (2009).

4. Findings and Discussion

4.1. Presentation of findings

Descriptive statistics of the sample: The total sample comprised 3,155 manufacturing plants. Analysis of qualitative variables revealed a diverse and representative cross-section. Geographically, Germany contributed the largest portion (31.0%, n=979), followed by Japan (22.0%, n=695), South Korea (18.9%, n=596), the United States (14.5%, n=458), and Italy (13.5%, n=427). In terms of industry representation, the sample was nearly evenly distributed: Transportation (37.2%, n=1174), Machinery (34.1%, n=1076), and Electronics (28.7%, n=905). Furthermore, the sample included a mix of traditional (31.8%) and world-class (35.7%) manufacturing plants, providing a valuable performance spectrum for comparison. The quantitative analysis of the observed variables showed that all items had mean scores above the mid-point of their respective scales, indicating generally positive assessments of strategy and performance among respondents. Critically, the skewness statistics for most variables fell within the acceptable range of -2 to +2, indicating that the data did not significantly deviate from a normal distribution, thus satisfying a key assumption for the parametric statistical tests to follow.

Reliability and validity assessment: The reliability of the measurement scales was confirmed prior to further analysis. Cronbach's Alpha for the 6-item Strategy scale was 0.777, and for the 13-item Competitive Performance scale, it was 0.868. Both values exceed the 0.7 threshold recommended for established scales and are well above the 0.6 cut-off for exploratory research, confirming good internal consistency reliability (Hoang Trong & Chu Nguyen Mong Ngoc, 2005). The Corrected Item-Total Correlations for all items were above 0.3, indicating that each item shared a common core with the overall scale, and no items needed to be removed at this stage.

Table 1: Cronbach's Alpha

	Strategy	Competitive performance
Cronbach's Alpha	0,777	0,868
N of items	6	13

Source: SPSS outputs, 2025

Subsequently, Factor Analysis was conducted to validate the construct validity and reduce data dimensionality. The KMO measure of sampling adequacy was 0.830, well above the recommended value of 0.6, and Bartlett's Test of Sphericity was significant (χ^2 = 1040.770, $p < 0.001$), confirming that the data were suitable for FA. Using Principal Component Analysis with Varimax rotation and specifying the extraction of two factors (as theoretically dictated), the analysis revealed a clear structure. However, one item from the performance scale (PER_03 - On-time delivery performance) exhibited cross-loading with a difference of less than 0.3 between its loadings on the two factors. Following established guidelines (Hair et al., 2006), this item was removed to achieve a clean factor structure. The final solution, with 6 items loading cleanly onto a "Strategy" factor (F_STR) and 12 items loading onto a "Competitive Performance" factor (F_PER), explained a satisfactory 43.37% of the total variance. The factor loadings for all retained items were above 0.4, confirming their practical significance.

Hypothesis testing through regression analysis: To test the central hypothesis H_1, a linear regression analysis was performed with the factor scores for Competitive Performance (F_PER) as the dependent variable and the factor scores for Strategy (F_STR) as the independent variable. A preliminary Pearson correlation analysis confirmed a positive and statistically significant bivariate relationship between the two factors ($r = 0.334$, $p < 0.01$). The regression model was found to be statistically significant overall ($F(1, 135) = 23.778$, $p < 0.001$). The adjusted R-squared value was 0.143, indicating that the Strategy factor accounts for 14.3% of the variance in Competitive Performance. While this may seem modest, it is important to note that firm performance is influenced by a multitude of other internal and external factors (e.g., macroeconomic conditions, industry shocks, leadership quality) not included in this parsimonious model. The key finding lies in the regression coefficient for F_STR, which was positive and highly significant ($\beta = 0.448$, $p < 0.001$). This leads to the regression equation: **F_PER = -0.147 + 0.448*F_STR**. The positive β-value provides direct support for H_1, confirming that a stronger strategic orientation is associated with a higher level of competitive performance.

Table 2. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0,147	0,084		-1,738	0,085

	F_STR	0,448	0,092	0,387	4,876	0,000
	Adjusted R Square	0,543				
	F	23,778	Sig	0.000		

a. Dependent Variable: REGR factor score 1 for analysis 10

Robustness check with average method: To validate the findings from the factor-based regression, a robustness check was conducted using the Average method. Composite variables were created: A_STR (the mean of all 6 strategy items) and A_PER (the mean of the 12 retained performance items). The correlation between these composite variables was even stronger ($r = 0.472$, $p < 0.01$). Running the regression with these variables yielded a consistent and reinforcing result: the model was significant ($F(1, 135) = 38.654$, $p < 0.001$), with an adjusted R^2 of 0.217, and the coefficient for A_STR was again positive and significant ($\beta = 0.332$, $p < 0.001$). The convergence of results from two different analytical approaches (factor scores and averages) strongly bolsters the reliability and validity of the conclusion that strategy and competitive performance are positively related.

4.2. Discussion of the Findings

The empirical results of this study provide robust, multi-faceted confirmation that strategy, encompassing both its formulation and implementation, is positively and significantly related to the competitive performance of manufacturing firms. This core finding sits comfortably within a substantial stream of prior research that has argued for the strategic imperative in achieving business success (Porter, 1996; Parnell, 2010; Ibrahim et al., 2012).

The findings offer a more granular understanding by highlighting the specific strategic activities that matter. The results suggest that manufacturers who go beyond merely having a strategic document—who *actively pursue* their strategy, ensure it is *translated into manufacturing terms*, *screen investments for strategic consistency*, and keep manufacturing *in step with the business strategy*—are the ones who achieve superior performance relative to their competitors. This underscores that strategy is not a passive statement of intent but a dynamic, guiding framework for daily decision-making and action at all levels of the organization, especially on the shop floor. This finding powerfully resonates with the work of Beer and Eisenstat (2000), who argued that the "silent killers" of strategy, such as poor vertical communication and unclear strategic priorities, must be actively confronted to build a capable organization. Our results imply that the surveyed firms where manufacturing management is aware of the business strategy and where corporate decisions consider manufacturing implications are precisely those overcoming these killers.

The study's results also allow for a nuanced interpretation of the contrarian views of scholars like Waal (2011). The findings do not suggest that strategy is the *only* factor that matters, nor do they claim that simply "having a strategy" is enough to guarantee success—a point on which we concur with Waal. Instead, the results demonstrate that a well-crafted *and* effectively executed strategy is a powerful, measurable mechanism for leveraging a firm's unique resources and capabilities (as per the Resource-Based View of Barney, 1991) to create a tangible competitive advantage in the marketplace. In this sense, strategy is the essential vehicle or blueprint through which a firm's "unique traits" (Harris & Ruefli, 2000) are identified, cultivated, and ultimately exploited to create value for customers and outmaneuver rivals. Therefore, our study reconciles these views: while unique resources are paramount, it is the strategic process that orchestrates and deploys them effectively.

For manufacturing managers and executives, the practical implications are profound. Strategic management should not be relegated to an annual off-site meeting or a binders on a shelf. It must be integrated into the very fabric of the organization's operations. A clear and communicated strategy provides a crucial sense of direction, ensures organizational alignment from the top floor to the shop floor, and focuses finite resources on key competitive priorities—be it achieving cost leadership, superior quality, unmatched flexibility, or rapid innovation. This coordinated, strategy-driven effort prevents resource wastage on conflicting or non-value-adding initiatives and drives the entire organization as a unified system toward a common vision. This coordinated focus, in turn, directly enhances the firm's ability to compete effectively on multiple performance dimensions simultaneously, as captured by the multi-item performance scale in this study. In the complex, fast-paced, and resource-constrained world of modern manufacturing, such strategic discipline is not a luxury; it is a necessity for survival and prosperity.

5. Suggestions and Conclusion

5.1. Implications and suggestions for Vietnamese manufacturing firms

The Vietnamese manufacturing sector stands at a critical juncture. It is a vital engine of the national economy, but it faces intense pressure from regional competitors, evolving global supply chains, and the demands of Industry 4.0. The findings of this international study offer not just theoretical insights but a clear and urgent call to action for Vietnamese firms seeking to move up the value chain and achieve sustainable competitive advantage.

1. **From Ad-hoc operations to integrated strategic management:** The most critical suggestion is a fundamental mindset shift. Many Vietnamese enterprises, particularly SMEs, are often characterized by opportunistic, short-term decision-making driven by the owner/manager. This must evolve towards a disciplined, systematic approach to strategy.
   - *Robust formulation:* Strategy development must become a collaborative exercise, not a solitary one. Vietnamese firms should institutionalize the use of analytical frameworks like SWOT and PESTEL to understand their specific context. Involving cross-

functional teams in strategy formulation ensures buy-in and leverages diverse insights. For firms lacking internal expertise, engaging reputable strategic consultants can be a high-return investment to catalyze this process.

- *Disciplined implementation:* A strategy is only as good as its execution. Vietnamese manufacturers need to master the art of translating grand strategy into actionable, measurable, and resource-backed operational plans. This means breaking down the 5-year vision into annual, quarterly, and monthly objectives for each department, with clear key performance indicators (KPIs), designated owners, and defined timelines.
- *Strategic alignment in manufacturing:* A recurring theme in the research is the alignment between business strategy and manufacturing operations. For a Vietnamese garment factory pursuing a differentiation strategy based on quality and rapid response, this means its investment in advanced sewing technology, training programs for workers on quality control, and its production planning software must all be consciously chosen to support that strategic goal. The strategy must be "translated into manufacturing terms" daily.
- *Continuous strategic control:* Strategy is not a "set-and-forget" activity. Vietnamese firms need to establish regular (e.g., monthly or quarterly) strategy review meetings. These are not just operational updates but dedicated sessions to review progress against strategic goals, understand variances, and make necessary adjustments in a dynamic market.

2. **Investing in human capital as a strategic asset:** The research underscores that strategy is executed by people. Vietnam's demographic dividend is an advantage, but it must be leveraged strategically.
   - *Strategic leadership:* Cultivating leaders who are not only technical experts but also strategic thinkers is crucial. Leadership development programs should focus on strategic vision, environmental scanning, and the ability to inspire and align teams towards long-term goals.
   - *Empowering the workforce:* For the production floor staff, this means moving beyond seeing them as mere labor. Investing in continuous technical training, problem-solving skills (e.g., Root Cause Analysis), and even language skills enhances their capability to contribute to strategic objectives like quality improvement and efficiency. Fair compensation, safe working conditions, and a positive organizational culture are not just ethical imperatives; they are strategic ones that reduce turnover and foster loyalty and engagement.
3. **Building agile and simplified organizational structures:** Many Vietnamese firms suffer from hierarchical and bureaucratic structures that stifle communication and slow down decision-making. To implement strategy effectively, information must flow quickly and accurately. Flatter, more agile structures empower middle managers and frontline employees, enabling them to respond faster to challenges and opportunities in alignment with the strategic direction.
4. **Technology and process innovation as strategic enablers:** Advanced technology is a powerful tool for achieving strategic objectives, not an end in itself. Whether the goal is cost reduction (through automation and lean manufacturing techniques), quality enhancement (through precision engineering and IoT-enabled quality control), or flexibility (through agile manufacturing systems), technology investments must be deliberately screened for their consistency with the business strategy, as highlighted in our findings. Embracing philosophies like Lean Manufacturing can provide a structured approach to driving out waste and creating more value, directly supporting a cost-leadership or operational excellence strategy.

5.2. Conclusion

This study has unequivocally demonstrated, through a large-scale, multi-country empirical analysis, a positive, significant, and robust relationship between strategy and competitive performance in the global manufacturing sector. It establishes that strategic management, when properly understood as an integrated process of formulation, implementation, and control, is not a peripheral administrative function but a core driver of competitive advantage and sustained success. It is the thread that connects a firm's vision to its daily operations and market outcomes.

For Vietnamese manufacturers, the imperative is clear and urgent: to thrive in an increasingly competitive landscape, they must move beyond a purely operational, product-centric, and short-term view of business. Embracing strategic management as a core discipline is the pathway to this transformation. By focusing on developing clear, context-aware strategies, implementing them with discipline and alignment, and building an organization whose people, structure, and technology are all orchestrated to support these strategies, Vietnamese manufacturing firms can significantly enhance their performance, capture greater value, and secure a durable and prosperous position in the era of global economic integration.

Limitations and future research: This study is limited by its focus on large manufacturing plants in developed economies. Its findings, while indicative, need to be tested in the specific socio-economic context of Vietnam. Future research should, therefore, replicate this study within Vietnam, surveying a wide range of manufacturing SMEs and large firms to develop a more nuanced understanding of the strategy-performance link in this vibrant economy. Furthermore, longitudinal studies could track how shifts in strategic orientation impact performance over time, and qualitative research could provide rich insights into the "how" and "why" of successful strategy implementation in the Vietnamese cultural context.

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