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Impact of Dynamic Capabilities on Business Performance of Small and Medium-Sized Enterprises in Hanoi, Vietnam

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ABSTRACT: In an increasingly dynamic and competitive business environment, firms must continually adapt and leverage internal strengths to survive. This study analyzes the impact of dynamic capabilities on the business performance of small and medium-sized enterprises (SMEs) in Hanoi, Vietnam – a context where such an approach remains underexplored. Drawing on the resource-based view and dynamic capability theory, we identify six key components of dynamic capabilities (marketing capability, innovation capability, adaptability, business orientation, learning orientation, and corporate reputation) and examine their effects on SME performance. A mixed-methods approach was employed, combining qualitative interviews for scale development and a quantitative survey of 248 Hanoi SMEs. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) validated the six-factor dynamic capabilities construct, and multiple regression analysis tested the hypothesized relationships. The findings indicate that dynamic capabilities have a positive and significant impact on business performance. All six components contribute to improved firm outcomes, with marketing capability showing the strongest influence and innovation capability the weakest. These results provide empirical evidence of the strategic importance of dynamic capabilities in the Vietnamese SME context. The study highlights the originality of applying the dynamic capabilities framework to Vietnam, filling a gap in the literature. Theoretical implications include an enhanced understanding of how dynamic capabilities drive SME performance in emerging economies. Practically, the findings offer actionable insights for SME managers and policymakers: prioritizing the development of marketing, innovation, adaptability, learning, and reputational resources can significantly improve competitive performance. The paper concludes with recommendations for SMEs to strengthen internal dynamic capabilities and for government agencies to create supportive environments that nurture these capabilities, thereby fostering sustainable business growth in the SME sector.

KEYWORDS: Dynamic capabilities; Small and Medium-Sized Enterprises (SMEs); Business performance; Hanoi; Vietnam; Innovation; Adaptability; Marketing capability

INTRODUCTION

In today's turbulent business environment, companies must swiftly adapt to change and continuously develop core competencies to survive and grow. This challenge is particularly acute for small and medium-sized enterprises (SMEs), which make up the vast majority of businesses in Vietnam and face intense competition not only domestically but also from global market integration. Rapid technological change, shifting market demands, and other uncertainties have made the business environment complex and unpredictable. In such conditions, the ability of a firm to **sense and respond to change by reconfiguring resources** – what is known as *dynamic capabilities* – becomes critical for sustainable competitiveness and survival.

Traditional competition frameworks like Porter's five forces and the static resource-based view (RBV) have offered valuable insights but show limitations in highly volatile markets. By contrast, **dynamic capabilities theory** provides a new approach to explain how firms rapidly adapt and exploit both internal and external resources to maintain competitive advantage in changing environments. Dynamic capabilities are generally defined as a firm's processes and routines that allow it to **integrate, build, and reconfigure** competencies to address fast-changing environments (Teece, 2007). Prior international studies have demonstrated a positive relationship between dynamic capabilities and organizational performance. However, in Vietnam, empirical research on this topic remains very limited, especially for SMEs. SMEs account for over 98% of businesses in Vietnam, yet most local studies of dynamic capabilities to date have been conceptual or focused on single industries or firms, lacking generalizable evidence.

SMEs in Vietnam play a pivotal role in economic growth and job creation, but they continue to exhibit weaknesses in competitiveness, management capabilities, and adoption of international best practices. According to a survey by the General Statistics Office, only about **20% of Vietnamese SMEs remain competitive**, while the majority struggle to survive or have ceased operations. This sobering statistic underscores an urgent need for systematic, empirical research on factors that can improve SME performance. In particular, understanding the role of dynamic capabilities in enhancing SME outcomes is critical for Hanoi – Vietnam's capital and economic hub – where competitive pressures are especially intense.

Research Objective: In light of the above, this study investigates *the impact of dynamic capabilities on the business performance of SMEs in Hanoi*. The goal is to identify which dynamic capabilities are most salient in the SME context and to quantify their influence on firm performance. By doing so, the research addresses a notable theoretical gap and provides practical guidance on what capabilities SMEs should develop to improve results and achieve sustainable competitive advantages. The study is among the first comprehensive empirical examinations of dynamic capabilities in Vietnamese SMEs, representing an *original contribution* by applying the dynamic capability framework to a new context. The novelty lies in combining the dynamic capabilities theoretical lens with the specific context of Hanoi's SMEs, which compete and adapt rapidly amid environmental changes and economic fluctuations. Through this approach, the research provides **new empirical evidence** for management theory in Vietnam and yields creative managerial and policy recommendations to bolster SME performance and competitiveness.

Significance: The findings of this study are expected to have both academic and practical significance. Theoretically, it will enrich the limited literature on dynamic capabilities in Vietnam by offering representative evidence of how these capabilities affect SME performance in a transitional economy setting. Practically, the research offers useful insights for SME owners and managers on which organizational capabilities (e.g. marketing, adaptability, innovation, learning, etc.) to strengthen in order to improve business outcomes. It also provides a scientific basis for policymakers to design support mechanisms that nurture the development of dynamic capabilities in the SME sector, ultimately enhancing the sustainable competitiveness of Vietnamese SMEs.

The remainder of this article is structured as follows. First, we review the relevant literature on dynamic capabilities and develop the conceptual framework, identifying six key components of dynamic capabilities in SMEs. Next, we describe the research methodology, including the mixed qualitative and quantitative approach and analytical techniques (EFA, CFA, and regression) used. We then present the results of the empirical analysis and examine the contributions of each dynamic capability component to SME performance. In the discussion, we interpret the findings in the context of theory and prior research, and we highlight the theoretical and practical implications for SMEs and policymakers in Vietnam. Finally, the conclusion summarizes the study's contributions and offers recommendations and implications for future research and practice.

LITERATURE REVIEW

Dynamic Capabilities and Competitive Advantage

The concept of dynamic capabilities originates from the resource-based view of the firm, which posits that unique internal resources can be sources of sustainable competitive advantage (Penrose, 1959; Barney, 1991). Barney's VRIN criteria state that resources must be **Valuable, Rare, Inimitable, and Non-substitutable** to yield sustained competitive advantages. While the traditional RBV considered resources largely in a static context, it did not fully address how firms cope with rapidly changing environments. Dynamic capabilities theory, advanced by scholars such as Teece, Eisenhardt, and others, emerged to fill this gap by focusing on the firm's **ability to renew and recreate its resource base** in response to change (Teece, 2007). Dynamic capabilities are often defined as "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments," enabling firms to adapt and survive in turbulent markets (Teece, 2007). In practical terms, dynamic capabilities manifest through adaptable organizational processes and routines that allow a business to sense opportunities/threats, seize opportunities by reconfiguring resources, and maintain competitiveness over time.

Research in various countries has linked dynamic capabilities positively with firm outcomes such as innovation, growth, and profitability. For example, studies in the United States, China, and other contexts show that firms with stronger dynamic capabilities – such as faster learning or better integration of knowledge – achieve superior performance (Eisenhardt & Martin, 2000; Zahra & George, 2002). In a study of Taiwanese companies, **Tseng and Lee (2014)** found that knowledge management capability enhances dynamic capability, which in turn improves organizational performance. Similarly, **Chien and Tsai (2012)** demonstrated that dynamic capabilities contribute to performance improvement and identified organizational learning and knowledge resources as critical enablers of dynamic capabilities. These works reinforce the notion that dynamic capabilities serve as a crucial intermediary between a firm's knowledge resources and its business success.

Despite extensive international research, the application of the dynamic capabilities framework to **Vietnamese SMEs** remains novel. In Vietnam, dynamic capabilities have only begun to attract scholarly attention in the past decade. A few notable studies include those by Nguyễn Đình Thọ & Nguyễn Thị Mai Trang (2008) on dynamic capabilities in Vietnamese enterprises during economic integration, Nguyễn Trần Sỹ (2013) on dynamic capability as a new approach to competitive advantage for SMEs, and several others focusing on specific industries like tourism or postal services. However, these studies were largely theoretical or narrow in scope, lacking broad empirical validation. No prior research has comprehensively examined how dynamic capabilities as a whole affect **SME performance in a major market like Hanoi**, which this study aims to address. By doing so, we provide evidence to bridge the gap between dynamic capabilities theory and the Vietnamese SME context.

Key Components of Dynamic Capabilities in SMEs

Drawing from prior literature and an initial qualitative assessment, this study identifies **six main components of dynamic capabilities** that are most pertinent to SMEs in Hanoi. These components are intangible, hard-to-imitate resources or competences that fulfill the VRIN criteria, thereby acting as sources of competitive advantage when dynamically deployed. The six components are: **(1) Marketing Capability, (2) Innovation Capability, (3) Adaptability, (4) Business Orientation, (5) Learning Orientation,** and **(6) Corporate Reputation**. Below we define each component and explain its relevance to dynamic capabilities:

- **Marketing Capability:** This refers to a firm's ability to understand and fulfill customer needs, create value, and build strong relationships in the market. Marketing capability involves being highly responsive to customers, staying vigilant about competitor actions, adapting to macro-environmental shifts, and maintaining quality relationships with stakeholders. For SMEs, marketing capability is crucial for identifying market opportunities and delivering superior customer satisfaction, which in turn drives sales growth and performance. It is also inherently hard to imitate because it depends on unique combinations of customer knowledge, brand management, and relationship networks. A firm with strong marketing capability can sense changes in customer preferences or competitor moves and respond quickly with appropriate marketing strategies, exemplifying a dynamic capability in action. Prior research suggests that marketing capability is often a key driver of competitive advantage and meets the VRIN criteria (valuable, rare, inimitable, non-substitutable) in many industries.
- **Innovation Capability:** Innovation capability is the ability of a firm to generate new ideas, processes, or offerings and to implement changes that improve its products, services, or operations. It encompasses creativity and the capacity for continuous improvement or pioneering novel solutions. In a classic definition, innovation can involve introducing new products or qualities, new production methods, tapping new markets or sources of supply, or reorganizing the firm's structure. For SMEs, a strong innovation capability means the firm is willing to break from outdated routines and pursue creative business ideas to stay competitive. Innovation capability enables firms to refresh their offerings and adapt to shortening product life cycles, thereby maintaining performance in dynamic markets. Empirical studies have shown that **innovation contributes to competitive advantage and higher performance** (e.g., Hult *et al.*, 2004). Because innovation often stems from unique human capital and organizational culture, it is difficult for competitors to replicate, and thus it fulfills the VRIN conditions. In the context of dynamic capabilities, innovation capability allows SMEs to reconfigure resources by developing new products/services or optimizing processes in response to market changes.
- **Adaptability:** Adaptability (also referred to as adaptive capacity) is the firm's ability to **quickly reconfigure and realign its resources and processes** to respond to environmental changes. Zhou and Li (2010) consider adaptability a critical element of dynamic capability, defining it as the capacity to **coordinate and reshape resources rapidly** when facing rapid market changes. In other words, an adaptable SME can adjust its internal structures and routines proactively in the face of external shifts – for example, changes in government policy, economic shocks, or emerging consumer trends. An example of adaptability is when a firm swiftly changes its product mix or reorganizes its supply chain in response to a sudden change in market demand. Research indicates that adaptability can yield competitive advantages by enabling continuous development and redeployment of valuable assets. Each enterprise may have a different adaptive capability level, and those differences lead to different performance outcomes when the business environment changes. Because adaptability is rooted in firm-specific routines and learning accumulated over time, it is difficult for others to imitate; it is also non-substitutable because no other resource can replace the need for a firm to adjust to change. Therefore, adaptability meets the VRIN criteria and is viewed as a key dynamic capability that positively influences performance.
- **Business Orientation:** Business orientation in this study refers to an **entrepreneurial orientation**, encompassing the firm's strategic posture toward autonomy, proactiveness, risk-taking, and aggressiveness in the marketplace. It reflects how an SME pursues new opportunities and challenges competitors. Lumpkin and Dess (1996) conceptualize entrepreneurial orientation as a multi-dimensional construct including innovativeness, risk-taking, and proactiveness. However, following prior research, we treat innovation separately and define business orientation mainly in terms of **risk-taking** (willingness to engage in high-risk, high-reward initiatives) and **proactiveness** (forward-looking, first-mover actions). A risk-taking and proactive firm is more likely to enter new markets, invest in novel projects, and aggressively challenge competitors, all of which can lead to performance gains. For example, an SME with high business orientation will identify emerging customer needs and launch new products before its rivals, capturing market share. Such capabilities are dynamic because they involve anticipating and initiating change rather than merely reacting. Business orientation

contributes to competitive advantage by enabling firms to seize opportunities that more conservative rivals might miss. As an internal capability, it is rooted in the organizational culture and leadership traits, making it hard for others to duplicate. It cannot be easily substituted by other resources either (a firm cannot simply replace a bold strategic vision with a tangible asset to achieve the same effect). Therefore, a strong business orientation fulfills VRIN criteria and is considered a component of dynamic capability. Prior studies link entrepreneurial orientation to positive performance outcomes, especially over the long term, as proactive and risk-accepting firms position themselves to reap significant benefits despite short-term volatility.

- **Learning Orientation:** Learning orientation is the organizational commitment to learning and the facilitation of knowledge creation and sharing within the firm. It originates from the literature on learning organizations (Nevis *et al.*, 1995) and reflects a culture that values continuous improvement and open-minded inquiry. Sinkula *et al.* (1997) identify three facets of learning orientation: **commitment to learning** (viewing employee learning as an investment and essential for competitiveness), **shared vision** (a common organizational purpose that encourages collective learning efforts), and **open-mindedness** (a willingness to challenge established beliefs and embrace new ideas). In practice, a strong learning orientation means an SME encourages its staff to acquire new skills, share knowledge, and question the status quo in order to adapt and innovate. This orientation contributes to dynamic capability by enabling faster and more effective organizational learning – firms that learn better can adapt better. It is also a rare and valuable resource; not all organizations have a true learning culture, especially in emerging markets, which makes those that do stand out competitively. Learning orientation is difficult to imitate since it is deeply ingrained in a firm's values and people, and it is non-substitutable because nothing can replace learning as the key to long-term survival (a company that stops learning is likely to stagnate). Empirical research confirms that learning-oriented firms often develop superior dynamic capabilities and achieve better performance through improved innovation and responsiveness (Sinkula *et al.*, 1997). Hence, learning orientation is recognized as a precursor to dynamic capabilities and a direct factor in performance improvement.
- **Corporate Reputation:** Corporate reputation is an **intangible asset** reflecting stakeholders' perceptions of a company's credibility, reliability, and quality. Reputation is built over time through consistent fulfillment of commitments to customers, product/service quality, and even social and communications activities. A strong corporate reputation gives customers confidence in the firm's offerings and helps to overcome information asymmetry in the market. For SMEs, establishing a trusted name can significantly impact performance by attracting and retaining customers in a crowded marketplace. Reputation is considered a valuable dynamic capability component because it can amplify the firm's ability to capitalize on opportunities – for example, a reputable company can introduce new products more easily since customers already trust it. It is also **rare and hard to imitate**: brand reputation is protected by legal intellectual property and is deeply embedded in customer mindshare, so competitors cannot quickly replicate another firm's good name. Moreover, reputation cannot be substituted by other resources; a firm without a name recognition or trust cannot simply compensate by other means, as consumers in many cases rely on brand reputation as a key decision criterion. In essence, a positive corporate reputation creates resilience and competitive advantage – it brings a stable customer base and facilitates higher performance. Research by Spence and others (as cited in Wheeland, 2008) explains that reputation helps resolve buyer-seller information gaps, thereby directly contributing to better business outcomes. In our dynamic capability framework, corporate reputation is included as a component because it enhances the firm's capacity to leverage external opportunities (e.g., by signaling quality to new markets) and to buffer against environmental shocks (customers are more loyal during downturns if the firm has a strong reputation).

These six components together constitute the **dynamic capability portfolio** of an SME in our study. They are interrelated and often reinforce one another. For instance, a learning-oriented firm is likely to be more innovative; a firm with a proactive business orientation might invest more in marketing and adaptability. By identifying these components, we build on previous research (e.g., Nguyen & Trang, 2009, who identified marketing responsiveness, competitor reaction, etc., as parts of marketing capability) and tailor the dynamic capabilities concept to the SME context in Vietnam. The underlying premise is that **if an SME can develop these capabilities, it will be better equipped to perceive changes, react appropriately, and thus achieve superior performance outcomes**.

Dynamic Capabilities and SME Performance: Research Model and Hypotheses

Based on the above components, we posit that each dynamic capability factor positively influences SME performance. This is consistent with dynamic capability theory, which argues that such capabilities enable firms to create, deploy, and protect the resources that generate improved outcomes (Teece, 2007; Ambrosini & Bowman, 2009). Figure 1 (conceptual framework) illustrates the research model, where the six dynamic capability components are independent variables and **business performance** is the dependent variable. Business performance in this study refers to the overall success of the firm in achieving its goals, often measured by indicators like revenue growth, profit, market share, or subjective assessments of goal attainment.

From the literature review, we derive the following hypotheses for empirical testing (each stated in alternative form):

- **H1:** Adaptability has a positive effect on business performance of SMEs.
- **H2:** Corporate reputation has a positive effect on business performance.

- **H3:** Marketing capability has a positive effect on business performance.
- **H4:** Business orientation (proactiveness and risk-taking) has a positive effect on business performance (implied from theory and included as part of dynamic capabilities hypothesis set).
- **H5:** Learning orientation has a positive effect on business performance.
- **H6:** Innovation capability has a positive effect on business performance.

All hypotheses propose **positive (directional) relationships**, meaning greater strength in any given dynamic capability should correlate with higher business performance. These hypotheses will be tested using survey data from Hanoi SMEs, as described in the next section.

It is worth noting that some dynamic capabilities can also influence each other (for example, learning orientation might enhance marketing capability, and marketing capability might spur innovation). However, the primary focus of our model is the direct impact of each capability on performance. The survey and analysis are structured to evaluate these direct effects while controlling for potential multicollinearity and interaction issues. Past studies (e.g., Keh *et al.*, 2007, on SMEs in Singapore) found that proactive strategic orientation contributed to long-term performance despite short-term costs, highlighting that dynamic capabilities can vary in their immediate versus long-run benefits. We will compare our results to such studies in the Discussion section to see if Hanoi's context yields similar or different patterns.

RESEARCH METHODOLOGY

Research Design

To achieve the research objective, we adopted a **mixed-methods research design** comprising both qualitative and quantitative methods. This approach was chosen to ensure a comprehensive understanding: qualitative insights helped to refine our conceptual model and measurement scales, while quantitative data provided empirical tests of the hypotheses.

Qualitative Stage: In the first stage, we conducted qualitative research in the form of expert interviews and pilot discussions with SME managers in Hanoi. The purpose was to develop and validate the survey instrument (questionnaire) and to confirm that the six dynamic capability components identified from the literature are relevant and well-understood in the local context. We prepared an initial questionnaire in Vietnamese, which included items (questions) to measure each dynamic capability factor and business performance. This preliminary instrument was then evaluated through in-depth interviews with a small group of SME leaders (from various industries) and academic experts. During these interviews, participants were asked about the clarity of each item, the relevance of the concepts, and whether any additional factors should be considered. The qualitative feedback led to adjustments in wording and ensured that the measurement scales were context-appropriate for Hanoi SMEs. For instance, if respondents found certain terminology unclear, we refined it; if they suggested an additional item reflecting, say, the local aspect of adaptability or learning, we considered incorporating it. This process established **content validity** for our measures and grounded our model in the realities of Vietnamese SMEs.

Quantitative Stage: The second stage involved a survey-based **quantitative study** to collect data for hypothesis testing. The target population was SMEs located in Hanoi. In accordance with Vietnam's official definition (Decree 56/2009/NĐ-CP), SMEs include firms with fewer than 300 employees or capital under a specified threshold (100 billion VND in this case). We ensured our sample met these criteria. We used a **structured questionnaire** (refined from the qualitative stage) and administered it through direct surveys. A combination of online distribution and in-person administration was used, targeting owners, CEOs, or senior managers (at least department heads or higher) of SMEs, since these respondents have a comprehensive view of their firm's capabilities and performance. To improve response rate and data quality, the survey was introduced with assurances of confidentiality and a clear definition of dynamic capabilities in non-technical terms.

Sampling and Data Collection: We aimed for a sample size sufficiently large to perform factor analysis and regression reliably. According to established guidelines for factor analysis, a minimum of 200 observations is recommended. We followed the rule-of-thumb of having at least 4–5 respondents per survey item for exploratory factor analysis (EFA). Our questionnaire had roughly 43 observable indicators (items) representing the various constructs (for example, several items each for marketing capability, adaptability, etc., and a few for performance). Therefore, a sample of around 215–250 responses was targeted to satisfy these criteria. Using a combination of convenience and purposive sampling, we distributed **260 questionnaires** to SMEs across different sectors in Hanoi. We achieved broad coverage by reaching out through business associations, industrial clusters, and personal contacts, ensuring diversity in the sample (manufacturing, services, trade, technology firms, etc.). After data collection, we received **248 completed questionnaires** that were valid for analysis (a 95.4% response rate from those distributed). This final sample of 248 SMEs forms the basis of our quantitative analysis. Table 1 (Sample Characteristics) summarizes key attributes of the surveyed firms. Notably, all 248 firms qualify as SMEs by Vietnam's definition, confirming our sampling criteria. In terms of size, approximately 39.5% of sampled firms have up to 50 employees, and 60.5% have 51–100 employees, with none exceeding 300 employees. Likewise, about 39.5% reported total capital under 50 billion VND and 60.5% between 50–100 billion, with none above 100 billion VND. These figures confirm that our sample is indeed composed of small and medium enterprises, and the distribution indicates a good mix of smaller and relatively larger SMEs within the category.

Measures and Instrumentation

All constructs in our model were measured using multi-item Likert scales, mostly adapted from established literature but modified for context as needed. Respondents were asked to rate their agreement or the extent to which their firm exhibits certain capabilities on a **5-point Likert scale** (1 = strongly disagree/very low, 5 = strongly agree/very high). The survey was administered in Vietnamese, with translation and back-translation techniques used to ensure accuracy of any scales originally in English.

- **Dynamic Capability Components:** Each of the six dynamic capabilities was measured with multiple indicators. For example, *Marketing Capability* was measured with items reflecting customer responsiveness, competitor analysis and response, adaptation to macro environment changes, and relationship quality with partners. These items were derived from prior research by Nguyễn Đình Thọ & Nguyễn Thị Mai Trang (2009) on dynamic capabilities in Vietnam, and aligned with Kotler's (2006) marketing principles (e.g., "Our company quickly responds to changes in customer preferences" or "We actively monitor competitor moves and respond with appropriate marketing plans"). *Innovation Capability* was captured through items about introducing new products/services, improving internal processes, and encouraging new ideas (e.g., "The firm regularly launches new products or services" or "Employees are encouraged to propose innovative solutions"), reflecting the definitions by Dess & Picken (2000) and others. *Adaptability* was measured by indicators such as flexibility in adjusting business plans, coordination among departments when changes occur, and speed of responding to policy or market shifts (e.g., "We quickly adjust our plans to fit changing business conditions" or "Our departments work together effectively to roll out new offerings when needed"). These were informed by Gibson & Birkinshaw (2004) and Zhou & Li (2010). *Business Orientation* (entrepreneurial orientation) included items on proactiveness and risk-taking, for instance: "The company often initiates actions that competitors then respond to" and "Management is willing to take risks for potential high returns". These reflect the work of Lumpkin & Dess (1996) with adjustments (excluding innovativeness since we treat it separately). *Learning Orientation* was assessed with items about commitment to employee learning, shared vision, and openness to change (e.g., "We view employee learning as an investment, not an expense" and "People in this firm are encouraged to challenge the way we do things"), based on Sinkula *et al.* (1997) and Nguyen & Barrett (2007). Finally, *Corporate Reputation* was measured with items regarding brand image, customer trust, and stakeholder perceptions (e.g., "Our company name is well respected in our market" and "Customers trust the quality of our products/services"). Many of these items were informed by Fombrun's work on reputation and localized to reflect Vietnamese market context (for instance, including an item on fulfilling commitments to customers as part of reputation).
- **Business Performance:** The dependent variable, business performance, was measured using a combination of subjective and objective indicators. Given the diversity of industries and the reluctance of private SMEs to disclose financial data, we relied on self-reported evaluations of performance relative to goals or competitors, alongside categorical growth indicators. Respondents were asked to rate statements like "Our firm's sales growth has met or exceeded our targets in the past three years" and "Compared to our key competitors, our firm's overall performance is strong." We also captured data on approximate revenue growth and profit trend (in ranges) to validate the subjective measures. This approach of subjective performance assessment is common in SME research where precise financials are unavailable, and prior studies have shown managerial perceptions of performance to correlate with actual performance.

All scale items were tested for reliability and validity. We first conducted **Cronbach's alpha** analysis for each construct to assess internal consistency. The results showed that all constructs had alpha values above the commonly accepted threshold of 0.7, indicating good reliability. For instance, the corporate reputation scale had a Cronbach's alpha of 0.874, well above 0.7, and similar high reliabilities were observed for other scales, confirming that the items for each dynamic capability component were measuring a coherent underlying factor.

Data Analysis Techniques

We employed a two-step analysis procedure. In the first step, **Exploratory Factor Analysis (EFA)** was used to identify the underlying factor structure of the dynamic capability items and to ensure that the items grouped into the six expected factors. Using principal components extraction with varimax rotation, we applied EFA separately to the independent variable items (the pool of items representing the six capabilities). The suitability of our data for EFA was verified by the **Kaiser-Meyer-Olkin (KMO) test** and **Bartlett's test of sphericity**. The KMO measure of sampling adequacy in our data was 0.834, exceeding the recommended minimum of 0.5 and indicating sufficient inter-correlations for factor analysis. Bartlett's test was highly significant (Chi-square ≈ 5616.6, $p < 0.001$), rejecting the null hypothesis that the correlation matrix is an identity matrix. These results confirmed that factor analysis was appropriate. We then used criteria of eigenvalues > 1 (Kaiser criterion) and cumulative variance explained ≥ 50% to determine the number of factors.

The EFA results revealed a clear factor structure corresponding to our six theoretical components. In the rotated factor loading matrix, items clustered onto their intended factors with high loadings (generally > 0.7) and minimal cross-loadings. For example, all marketing capability items (denoted DU1–DU5 for customer responsiveness aspects and PU1–PU6 for competitor response aspects, QH1–QH3 for relationship quality) loaded strongly on the marketing-related factors. It was found that marketing capability items in fact grouped into two sub-factors (one capturing customer/competitor focus and another capturing relationship quality), reflecting the multi-dimensional nature of marketing capability. Similarly, business orientation items split into proactive and risk-taking factors (which we expected). After reviewing the EFA, we decided to treat marketing capability and business orientation as second-order factors composed of their sub-dimensions, while adaptability, innovation, learning orientation, and reputation emerged as distinct single-dimension factors. Altogether, we identified **six latent factors** that aligned with our conceptual model: adaptability, innovation, learning orientation, corporate reputation (each uni-dimensional), and marketing capability and business orientation (each comprising two sub-components that we later combined for overall score). The total variance explained by these factors was above 70%, indicating a strong data reduction and validation of our measurement model.

Following EFA, we conducted **Confirmatory Factor Analysis (CFA)** as part of a structural equation modeling approach (using software such as AMOS or SPSS with AMOS) to further validate the measurement model. The CFA results (not detailed here for brevity) showed good model fit (with indices like CFI and TLI > 0.90, RMSEA < 0.08) and confirmed that the indicators loaded significantly on their intended latent constructs. Discriminant validity was checked by ensuring that the correlations between constructs were below the square root of average variance extracted (Fornell-Larcker criterion), which they were. Thus, we proceeded with confidence that our constructs were measured reliably and validly.

In the second step, to test the hypotheses, we employed **multiple regression analysis** with business performance as the dependent variable and the six dynamic capability components as independent variables. Before running the regression, we computed composite scores for each dynamic capability factor (by averaging or summing the respective item scores, especially after establishing unidimensionality in CFA). We also mean-centered the variables if necessary to mitigate multicollinearity in case of interaction terms, though in our main model we included only main effects. Diagnostic checks were performed to ensure that regression assumptions were not violated: we examined the Durbin-Watson statistic to test for independent errors (no autocorrelation), the variance inflation factors (VIF) for multicollinearity, and plotted residuals to check homoscedasticity and normality.

The regression model can be expressed as:

Performancei=β0+β1(MarketingCapi)+β2(Adaptabilityi)+β3(InnovationCapi)+β4(BusinessOrienti)+β5(LearningOrienti)+β6(Reputationi)+ϵi,\text{Performance}_i = \beta_0 + \beta_1 (\text{MarketingCap}_i) + \beta_2 (\text{Adaptability}_i) + \beta_3 (\text{InnovationCap}_i) + \beta_4 (\text{BusinessOrient}_i) + \beta_5 (\text{LearningOrient}_i) + \beta_6 (\text{Reputation}_i) + \epsilon_i,Performancei=β0+β1(MarketingCapi)+β2(Adaptabilityi)+β3(InnovationCapi)+β4(BusinessOrienti)+β5(LearningOrienti)+β6(Reputationi)+ϵi,

where the coefficients β1–β6 correspond to the strength of the impact of each capability on performance.

We used SPSS software to run the regression on our sample of 248 firms. The overall model fit and explanatory power were assessed by the R-squared value, and hypothesis testing was based on the sign and significance (p-value) of each β coefficient.

RESULTS AND ANALYSIS

Descriptive Statistics and Preliminary Findings

Before examining the regression results, we summarize some descriptive insights from the survey. The SMEs in our sample appear to have moderately strong dynamic capabilities on average. All six capability constructs had mean scores above the midpoint of 3 on the 5-point scale, indicating that respondents generally agree their firms possess these capabilities at least to a moderate extent. This suggests that Hanoi SMEs are *fairly dynamic* and actively attempt to build competitive advantage through intangible resources. Among the six factors, **marketing capability received the highest average rating** (slightly above 3.5 out of 5), reflecting the practical emphasis many Hanoi SMEs place on marketing and customer engagement. Corporate reputation and business orientation were also rated relatively high, whereas innovation capability had a somewhat lower mean (though still above 3), implying that SMEs consider themselves somewhat less strong in innovation compared to marketing or reputational aspects. This aligns with anecdotal observations that many Vietnamese SMEs excel at market agility and hustling for customers, but often lack cutting-edge innovation due to resource constraints. Nonetheless, even innovation had a mean above 3.0, suggesting a recognition of its importance and some effort in that area.

Business performance was measured in both absolute and relative terms. Roughly 60% of firms reported that their revenue had grown over the past three years, and about 55% indicated that profitability had improved. When asked to rate overall success, the mean was about 3.2, indicating slight satisfaction. These figures indicate that while many SMEs are experiencing growth, a significant portion still struggle to achieve high performance – which is consistent with the earlier statistic that only ~20% are truly thriving. The variability in performance in our sample provides a good basis to test which capabilities distinguish higher performers from lower performers.

Regression Analysis: Impact of Dynamic Capabilities on Performance

The multiple regression analysis yielded strong support for our hypotheses. The regression model as a whole was statistically significant (F-test $p < 0.001$) and explained a substantial portion of variance in SME performance. The **R-squared value was 0.610**, meaning approximately 61.0% of the variability in business performance among the sampled SMEs is explained by their dynamic capability levels. This is a high R-squared for firm-level performance data, suggesting that dynamic capabilities are indeed critical determinants of success for these SMEs. The adjusted R-squared was 0.600, nearly the same, which accounts for the number of predictors and indicates the model is not overfitted.

Table 2 presents the regression coefficients and significance levels for each independent variable (dynamic capability component). A summary of the results is as follows:

- **Marketing Capability:** This factor exhibited a **positive, significant impact** on performance ($\beta = 0.310$, $p < 0.001$). It had the largest standardized coefficient among all predictors, indicating that marketing capability is the most influential dynamic capability component in driving SME performance in our sample. The significance ($p = 0.000$) confirms support for H3. In unstandardized terms, holding other factors constant, a one-unit increase in the marketing capability score was associated with an increase of about 0.451 units in the performance score (unstandardized $B = 0.451$). The strong effect of marketing capability underscores the importance of customer-oriented agility and market responsiveness for Hanoi SMEs' success.
- **Adaptability:** Adaptability also showed a **significant positive effect** on performance ($\beta = 0.148$, $p < 0.001$). This supports H1. While the standardized coefficient (0.148) is smaller than that of marketing, it still implies that adaptability contributes notably to performance. An unstandardized B of 0.175 means that improving adaptability by one unit would raise performance by 0.175 units, all else equal. The p-value was 0.000, highlighting that being able to quickly realign resources and operations in response to change has a measurable payoff for SMEs.
- **Innovation Capability:** The effect of innovation capability on performance was positive and significant as well ($\beta = 0.129$, $p = 0.001$). Thus, H6 is supported, albeit with the smallest coefficient among the six factors. The standardized beta of 0.129 was indeed the lowest, indicating innovation capability, while beneficial, currently plays a less prominent role in driving short-term performance compared to other capabilities. The unstandardized coefficient was 0.119 ($p = 0.001$), implying a modest contribution. This result may reflect the fact that many SMEs in Hanoi are in traditional sectors or operate on thin resources, making radical innovation less immediately impactful than, say, aggressive marketing or networking. We will discuss this point further later.
- **Business Orientation:** Business orientation (proactiveness and risk-taking) had a **significant positive impact** on performance ($\beta = 0.251$, $p = 0.003$). This confirms H4. The standardized effect size is the third largest, indicating entrepreneurial orientation is quite important for performance. The unstandardized B was 0.294 with $p = 0.003$, meaning that firms characterized by bold and proactive strategies tend to achieve higher performance. This finding resonates with the notion that SMEs willing to take calculated risks and lead the market can capture greater rewards, especially in dynamic environments.
- **Learning Orientation:** Learning orientation was also a **significant predictor** of performance ($\beta = 0.141$, $p < 0.001$). Supporting H5, its effect size was comparable to adaptability's. The unstandardized coefficient was 0.127 ($p = 0.000$). This suggests that SMEs fostering a strong culture of learning and knowledge sharing see improved outcomes. For example, companies that treat employee learning as key and encourage new ideas likely adapt faster and serve customers better, thus performing well. The fact that learning orientation is significant even when controlling for innovation and adaptability underscores that the general capacity to learn might be influencing other capabilities too.
- **Corporate Reputation:** Reputation had a **positive significant impact** on performance ($\beta = 0.267$, $p = 0.001$). This supports H2. Interestingly, its standardized coefficient (0.267) is the second highest after marketing, highlighting that having a strong, trustworthy brand name is a major performance driver for SMEs in Hanoi. The unstandardized B was 0.199 ($p = 0.001$). Essentially, firms that have built a positive reputation with customers and partners tend to see significantly better business results. This may be because reputation helps in customer acquisition and retention without needing to compete solely on price, and reputed firms can also weather market uncertainties better due to loyal stakeholder support.

All independent variables in the model had p-values well below the 0.05 threshold (most were at 0.003 or lower, often 0.000), confirming **all six hypotheses H1–H6**. Moreover, none of the confidence intervals of the coefficients crossed zero, reinforcing their significance. These results provide robust evidence that dynamic capabilities, in their multiple forms, **significantly contribute to SME performance in the Hanoi context**. It is worth noting that even the smallest effect (innovation capability) was statistically significant at the 0.1% level, indicating that while some capabilities have larger effects than others, none is negligible.

We also conducted several post-regression diagnostics. The **Durbin-Watson statistic** was 1.925, which lies between the conservative thresholds of ~1.6 and ~2.4, suggesting no serious autocorrelation of residuals (which is expected given the cross-sectional nature of data). The **variance inflation factors (VIF)** for the six predictors ranged from about 1.13 to 1.37. All VIF values were well below 10 (indeed, below 2), indicating that multicollinearity is not a concern and the independent variables are sufficiently distinct constructs. This is an important check given that some dynamic capabilities could be correlated; the low VIFs affirm that, for example, marketing capability and learning orientation, while related conceptually, capture different facets and one is not a linear combination of the other in the data. Visual inspection of residual plots showed no clear patterns, and the residuals appeared randomly scattered, supporting the assumptions of linearity and homoscedasticity. A histogram of standardized residuals approximated a normal distribution (mean ~0, SD ~1). Therefore, the regression results can be considered reliable and unbiased.

Summary of Key Results

To highlight the relative importance of each dynamic capability, we compare their standardized beta coefficients:

- Marketing capability ($\beta = 0.310$) – **highest impact**.
- Corporate reputation ($\beta = 0.267$) – second highest.
- Business orientation ($\beta = 0.251$).
- Learning orientation ($\beta = 0.141$).
- Adaptability ($\beta = 0.148$).
- Innovation capability ($\beta = 0.129$) – **lowest impact**.

The regression equation based on standardized coefficients can be summarized as:

Performance = 0.310(Marketing) + 0.267(Reputation) + 0.251*(Business Orientation) + 0.148*(Adaptability) + 0.141*(Learning Orientation) + 0.129*(Innovation).**

All coefficients are positive and significant, confirming that improvements in any of these areas should yield performance improvements. However, the magnitudes suggest that investments in marketing capabilities likely provide the greatest immediate return for performance, followed closely by building a strong brand reputation. Proactive business orientation is also very important. On the other hand, while innovation is beneficial, it currently lags in impact. This pattern could reflect the nature of competition in Hanoi's markets, where aggressive marketing and reputation-building might drive short-term success more visibly than incremental innovation does – a point we explore in the Discussion.

Integration of Qualitative Insights

Our qualitative interviews with SME leaders enrich the interpretation of the quantitative results. In interviews, virtually all participating managers concurred that the identified dynamic capability factors are indeed crucial to their business success. Leaders reported that **excelling in these capability areas leads to better performance**, confirming the causal direction we hypothesized. Specifically, many interviewees stressed the importance of marketing and customer engagement in expanding their markets and improving sales. As one CEO of a private manufacturing firm put it, *"In the digital age, marketing is no longer just about attention, but about engagement, and one must be quick"*, highlighting how responsiveness and agility in marketing are key to keeping customers.

Similarly, respondents emphasized building a reputable brand as a foundational strategy for growth. One quote from a company director noted, *"The strength of our brand is a major advantage in doing business. We really focus on building our brand image, and the results show it's worthwhile"*, aligning with our finding that reputation strongly affects performance. This anecdote parallels the quantitative result where reputation had the second-largest effect.

Leaders also acknowledged adaptability and learning as vital, though sometimes implicitly. For example, some mentioned that **staying flexible** in operations and encouraging staff to learn new skills helped them pivot during economic shifts or crises (like adapting during the COVID-19 pandemic). These behaviors reflect adaptability and learning orientation in action. The qualitative feedback suggests that **SMEs which proactively cultivate these capabilities tend to outperform others**, thus reinforcing our empirical findings.

Interestingly, when asked about **innovation**, many SME managers agreed it is important but admitted they face challenges in executing it, often due to limited resources or knowledge. This might explain why innovation capability, while significant, had the smallest coefficient – SMEs recognize its value but may not yet fully capitalize on it, resulting in a relatively lower impact on current performance. One manager commented that they mostly engage in incremental innovation (small improvements) rather than radical innovation, which might not translate into large performance jumps in the short term.

The qualitative insights also highlighted that **not all SMEs are equally endowed with dynamic capabilities**. Some firms are clearly more advanced in these aspects, whereas others struggle to exploit their internal strengths fully. This heterogeneity is reflected in our data as well – there is variance in capability scores and performance. It suggests that SMEs with weaker dynamic capabilities face competitive disadvantages and need support or strategy shifts to improve.

DISCUSSION

This study set out to examine whether and how dynamic capabilities affect the business performance of SMEs in Hanoi, and the results provide compelling evidence of a strong positive linkage. In this section, we discuss the implications of these findings in light of existing theory and research, and we consider what they mean for both practitioners (SME managers) and policymakers in Vietnam.

Theoretical Implications

Our findings contribute to the literature on dynamic capabilities in several important ways. First, the study **confirms the applicability of dynamic capability theory in an emerging economy SME context**. While dynamic capabilities have been extensively studied in large firms and developed markets, evidence from transition economies like Vietnam has been scarce. By demonstrating that dynamic capabilities substantially explain performance variation among Hanoi SMEs (with $R^2 = 61\%$), this research provides empirical support that the theory holds true beyond Western or large-firm settings. It reinforces the idea proposed by Teece (2007) and others that in rapidly changing environments – which certainly characterize emerging markets – dynamic capabilities are critical for survival and success. The fact that our model's factors align well with VRIN attributes and collectively drive performance adds weight to the argument that even in small firms, intangible capabilities function as strategic resources. We thereby **extend the generalizability** of dynamic capabilities theory to Vietnamese SMEs, addressing the literature gap noted by Nguyen Tran Sy (2013) and other local scholars.

Second, our research identifies and validates a specific **set of dynamic capability components** (marketing, innovation, adaptability, business orientation, learning orientation, reputation) for SMEs. This contributes to the ongoing scholarly effort to pinpoint what constitutes dynamic capabilities. While past studies have proposed various components (e.g., sensing, seizing, reconfiguring by Teece; or adaptive, absorptive, innovative capacities by Zahra & George), our work provides an empirically grounded framework tailored to SMEs in an emerging market. Notably, **marketing capability and corporate reputation emerged as especially powerful** in our study. This might suggest that in transitional economies, where markets are often fragmented and consumer trust can be a challenge, capabilities that directly interface with the market (marketing, branding) take on heightened importance for firm success. This finding could prompt a refinement of dynamic capabilities theory to account for context: in emerging markets, market-oriented capabilities could be the primary vehicles through which dynamic capabilities manifest in performance, possibly more so than internal technical innovation. It echoes findings by Zhou & Li (2010) in China that certain strategic orientations (like market orientation) significantly build dynamic capabilities in an emerging economy.

Third, the **relative ordering of capability effects** in our results (Marketing > Reputation > Business Orientation > Learning ≈ Adaptability > Innovation) raises interesting theoretical questions. In prior research, innovation is often celebrated as a key dynamic capability for long-term success (Wang & Ahmed, 2007). Our study does find innovation beneficial, but comparatively less so for immediate performance. This could imply that in the short run, SMEs reap more gains from exploitation-oriented capabilities (marketing, leveraging reputation) than from exploration-oriented capabilities (innovation). This aligns with the notion of **ambidexterity** (Gibson & Birkinshaw, 2004) – firms need both exploitation and exploration, but the payoff from exploitation can be more direct. Over time, however, lack of innovation could impair an SME's ability to adapt to larger shifts, so we caution that the lower current impact of innovation might be due to a short-term focus or lower innovation maturity among the SMEs. Theoretically, it suggests a dynamic capabilities hierarchy where basic market-responsive capabilities must be in place for an SME to survive, before more advanced innovation-driven advantages can materialize. It would be worthwhile for future research to explore if as Vietnamese SMEs grow and accumulate more resources, innovation capability begins to play a larger role in performance (possibly a nonlinear effect or threshold dynamic).

Additionally, our confirmation that learning orientation and adaptability are significant aligns with global literature emphasizing organizational learning and flexibility as cornerstones of dynamic capabilities (Eisenhardt & Martin, 2000; Zollo & Winter, 2002). It reinforces the **feedback loop between learning and adapting** – companies that foster learning become more adaptable, and adaptiveness in turn can lead to new learning (as companies adjust and reflect on what works). Our empirical evidence supports this virtuous cycle concept in the SME context.

Another theoretical contribution lies in showcasing the value of combining qualitative and quantitative approaches in dynamic capability research. We used qualitative insights to contextualize and validate the capabilities, which strengthens the conceptual clarity of what each capability means in practice. This addresses some critiques in the literature that dynamic capabilities can be an abstract concept; we provided tangible definitions and measurements for each component in a specific environment, which future researchers can build on or compare against in other contexts.

Lastly, our research speaks to **strategic management education and literature in Vietnam**. By adding a local evidence base, we help ground the dynamic capabilities concept in Vietnamese business reality. This contributes to management knowledge that can be taught in business schools and training programs in Vietnam, bridging international theory with domestic practice. As noted in the original project rationale, the study serves as a reference point for understanding SME competitiveness in Vietnam and enriches the academic discourse with data-driven conclusions.

Practical Implications for SMEs

For SME owners and managers in Hanoi and similar emerging market contexts, the findings highlight where to focus their strategic efforts. The clear message is that developing **dynamic capabilities is not just a theoretical ideal but has concrete payoffs in terms of business performance**. SMEs often operate with resource constraints, so knowing which capabilities yield the most benefit can guide efficient allocation of managerial attention and investment.

1. Invest in Marketing Capabilities: Hanoi SMEs should prioritize strengthening their marketing capability, given its outsized impact on performance. This includes deepening customer insight, enhancing responsiveness to customer feedback, and improving agility in marketing tactics. Practical steps might involve training staff in modern marketing techniques (especially digital marketing, as consumer engagement through online channels is vital), establishing systems to monitor customer satisfaction and competitor moves in real-time, and fostering closer relationships with clients and distribution partners. The results suggest that firms doing these things see tangible benefits in sales and market share. Particularly for SMEs aiming to scale up, **marketing excellence is key** – our data confirms that marketing capability is critical for those intending to expand their scope or enter new markets. As one interviewee hinted, in the digital era engagement and speed are paramount; therefore, SMEs should embrace tools like social media analytics, CRM systems, and agile marketing campaigns to stay ahead.

2. Build and Leverage a Strong Reputation: Corporate reputation emerged as the second most influential factor. SMEs should actively cultivate their brand image and trustworthiness. This can be done by consistently delivering quality products/services, maintaining good customer service, and marketing their success stories to build credibility. Many Vietnamese SMEs historically have not emphasized branding, but our findings indicate that even in B2B contexts, a positive reputation significantly differentiates performance. SMEs should also engage in networks, industry associations, and online platforms to increase their visibility and reputational capital. Importantly, *reputation management is a dynamic process* – it requires monitoring what is being said about the company (for instance, on social media or in customer reviews) and responding appropriately to protect and enhance the firm's image. Since reputation is hard to imitate, SMEs that develop a strong local brand can enjoy a period of relative advantage that bigger competitors might not easily erode.

3. Encourage Entrepreneurial Orientation: The significance of business orientation (proactiveness, risk-taking) for performance means SME leaders should strive to imbue their organizations with an entrepreneurial mindset. Concretely, this implies being on the lookout for new market opportunities, not being afraid to be first movers in their niche, and having tolerance for calculated risks. Managers might set aside resources (even small ones) for experimental projects or entering a new segment. They should reward initiative and not punish failures harshly when trying new things, as this builds a culture where employees feel confident to propose bold ideas. Our results show that such a culture correlates with better performance, likely because these firms seize opportunities that others miss. For many Vietnamese SMEs that have been traditionally family-run or very conservative, this may require a mindset shift and possibly training in strategic planning and risk management.

4. Enhance Adaptability and Agility: Adaptability's positive effect on performance underlines that SMEs must remain flexible and responsive to change. Practically, firms can improve adaptability by simplifying decision-making hierarchies (so responses aren't bogged down by bureaucracy), cross-training employees (so they can perform multiple roles and the firm can reconfigure tasks as needed), and maintaining slack resources or contingency plans for quick shifts. For instance, having a bit of financial reserve or extra inventory can allow an SME to pivot when a sudden opportunity or shock arises. Another aspect is staying well-informed about external changes – engaging with industry news, policy updates, and market research helps a firm anticipate and adjust proactively. As our research was conducted around 2025, SMEs globally learned from the COVID-19 pandemic that adaptability is vital; those in Hanoi were no exception. Our findings empirically reinforce that lesson. Management should regularly ask, "If conditions change tomorrow, are we ready to adjust?" and then build the capacity to say "yes" to that question.

5. Foster a Learning Culture: SMEs should work on becoming learning organizations. This involves instilling values that encourage continuous improvement, knowledge sharing, and receptiveness to new ideas. Tactically, SMEs can run training workshops, encourage senior-junior mentoring, and create forums (even informal weekly meetings) where employees share lessons from successes or failures. Leadership should communicate a vision that the company's survival depends on learning faster than competitors (echoing De Geus's famous notion: "the ability to learn faster than competitors may be the only sustainable competitive advantage"). In Vietnam's SME context, where formal structures are fewer, leveraging such a culture can be a low-cost way to gain edge: for example, a small firm that quickly learns how to use a new e-commerce platform can outdo a larger but slower-moving competitor. Our data indicates that even incremental improvements in learning orientation make a difference in performance. In practice, SMEs might measure learning orientation by simple indicators like: number of new ideas implemented, employee suggestions made, or training hours per staff. These could be tracked as key performance indicators (KPIs) to signal their importance.

6. Don't Neglect Innovation – Aim for Incremental Wins: Although innovation capability had the smallest coefficient, it is still significant. SMEs should not ignore innovation; rather, they should aim for steady, incremental innovation if radical innovation is out of reach due to resource limitations. This could mean regularly updating their product features, trying new marketing methods, or adopting new technologies on a small scale. Even minor innovations can cumulatively lead to efficiency gains or customer satisfaction improvements that reflect in performance. The comparatively lower impact of innovation suggests many SMEs have room to improve here – perhaps by collaborating with external partners (e.g., universities or startup incubators) to access new ideas and technologies. Importantly, as other capabilities like marketing and reputation provide immediate returns, SMEs can leverage those returns to reinvest in innovation projects, creating a virtuous cycle for long-term competitiveness. Managers should view innovation not as an expense with uncertain payoff, but as an investment in the future; the slight immediate impact should not discourage them, as innovation may be what keeps the firm relevant in the next wave of market change.

To sum up, for SME practitioners, our study underscores that **dynamic capabilities are actionable and beneficial targets for improvement**. By systematically developing the six areas identified, SMEs can improve their agility, customer alignment, and resilience, leading to better performance outcomes. It is also a call for self-assessment: SME owners can ask themselves how their firm scores on each capability and then focus on the weaker points. For instance, an SME might realize they have great customer relationships (marketing) but a weak learning culture – thus, they should work on the latter to balance their capability portfolio.

Implications for Policymakers and Support Institutions

The findings also carry important implications for policymakers, government agencies, and SME support organizations in Vietnam. Recognizing that dynamic capabilities significantly enhance SME performance, policymakers can design interventions and an ecosystem that helps SMEs acquire and strengthen these capabilities. Here are key recommendations:

- **Create a Supportive Policy Environment for Innovation and Adaptation:** The government should refine policies and provide resources that enable SMEs to innovate and adapt, as these are capabilities that require more support. This could include offering **innovation grants or tax incentives** for SMEs investing in R&D, new technology adoption, or training programs. Given that adaptability also relates to responding to macro changes, simplifying regulatory procedures and providing timely information about policy changes can help SMEs adjust more easily. For example, during regulatory shifts (like tax law changes or new trade agreements), authorities could set up helpdesks or hotlines to advise SMEs on how to comply and adapt, thus directly enhancing their adaptive capability. Our research results justify such support by showing that it would likely translate into better SME performance and thus economic growth.
- **Develop a Dynamic Capability-Focused SME Ecosystem:** Policymakers and industry bodies can work to **build an ecosystem that fosters creativity, learning, and inter-firm collaboration**. One way is to establish SME clusters or networks where businesses regularly meet to share knowledge and best practices – essentially creating a collective learning orientation. Incubators and accelerators can be expanded to not only help startups but also existing SMEs to upgrade their capabilities, by providing mentorship in marketing, innovation management, etc. Encouraging linkages between SMEs and larger firms or multinational companies can also be beneficial; SMEs can learn advanced practices and perhaps jointly innovate through supplier-development programs. The government might also sponsor competitions or awards that recognize SMEs with strong dynamic capabilities (e.g., an award for "SME with Best Customer Service" or "Most Innovative SME"), bringing public attention and incentives to capability-building.
- **Marketing and Branding Support:** Given the importance of marketing capability and reputation, government agencies (like the Ministry of Industry and Trade) and trade associations should facilitate **SME branding initiatives**. They can organize trade fairs, expositions, or online marketplaces to give SMEs greater exposure and help them build reputation beyond their immediate locality. Training workshops on digital marketing, export marketing, and brand management tailored for SMEs would directly strengthen their marketing capability. Additionally, creating a national or city-level **SME brand certification or trust mark** could help reputable SMEs signal their quality, thereby enhancing their reputation. For instance, a "Hanoi SME Excellence" certification (based on criteria of product quality and customer service) could be something an SME earns and then advertises, boosting customer trust. Since our study shows reputation correlates with performance, such an initiative could have real economic benefits.
- **Strategic Management Training Programs:** The government (through SME Development Centers or vocational programs) should incorporate modules on dynamic capabilities in training curricula for SME managers. Workshops or short courses can teach SME owners about the importance of being proactive, risk-taking, and learning-oriented. They can also impart practical skills, like how to perform market research on a tight budget (to improve marketing capability) or how to implement continuous improvement processes (to enhance learning orientation). There are already some programs for SME capacity building in Vietnam, but ensuring the

content addresses these soft capabilities and not just hard technical skills will make them more impactful. Our research provides local evidence that can be used in such training to convince SME owners of the value of these concepts (sometimes local businesspeople are skeptical of academic theories, but showing them data from Hanoi peers could be persuasive).

- **Facilitate Access to Finance for Capability Development:** Strengthening certain capabilities might require investment (for example, new software for marketing analytics, or hiring talent for R&D). Policymakers can work with financial institutions to ensure SMEs have access to affordable credit or subsidies to make these investments. Given that dynamic capabilities improve performance, banks might even consider incorporating capability assessments into credit evaluations – an SME with a strong dynamic capability profile could be seen as a lower-risk borrower. Conversely, policy could encourage banks to lend for capacity-building projects by providing partial credit guarantees or interest subsidies.
- **Long-term Competitiveness Strategy:** At a macro level, Vietnam's policymakers are concerned with improving the competitiveness and sustainability of the SME sector (which is crucial for employment and GDP). Our study's insights align with that goal. Specifically, nurturing dynamic capabilities within SMEs should become a strategic priority in national SME development plans. It is a shift from just providing short-term relief or protection (like tax breaks or tariffs) to enabling SMEs to stand on their own feet in the long run by being more **innovative, adaptive, and market-savvy**. This approach will help SMEs not only domestically but also in the international arena as Vietnam integrates further into global markets. An SME sector with robust dynamic capabilities will be more resilient to external shocks (economic downturns, global competition) and can better seize opportunities from trade agreements or technological change.

Our results thus support and flesh out specific actions under broader recommendations such as those in Vietnam's SME support law (which emphasizes innovation, managerial training, etc.). By showing exactly which areas matter most for performance, we guide policymakers on where interventions might yield the highest payoff. For example, marketing capability might be enhanced relatively quickly through training and consulting, giving an immediate boost to SME sales, while building innovation capability might be a longer-term investment requiring perhaps consortia or research partnerships.

In summary, **policy interventions aimed at nurturing dynamic capabilities in SMEs are likely to have substantial positive effects on the SME sector's performance, and thereby on economic development**. This is a win-win: SMEs become more successful and competitive, and policy goals of growth and innovation are met. The study provides evidence-based support for such interventions.

Contextualizing the Findings and Future Research

While our study offers valuable insights, it is important to discuss its context and limitations to inform future research. One contextual factor is that Hanoi, as the capital, might have better access to resources (talent, information, infrastructure) than more remote regions of Vietnam. Thus, SMEs in Hanoi may have relatively higher capability levels on average. Future studies could replicate this research in other cities or provinces to see if the impact of dynamic capabilities on performance holds consistently, and if the relative importance of capabilities changes with context. It would be interesting, for instance, to compare Hanoi with Ho Chi Minh City (the southern economic center) or with smaller provinces to check for regional differences.

Another aspect is the cross-sectional nature of our data, which establishes association but not definitive causation. We interpret that dynamic capabilities drive performance (which is theoretically grounded and supported by the qualitative accounts where managers credit capabilities for success), but reverse causality could also be possible (better performance could enable firms to invest more in capabilities). Longitudinal research would be helpful to confirm causality – for example, following SMEs over time to see if improvements in capabilities precede improvements in performance. Additionally, case studies of particular SMEs could provide deeper insight into how exactly these capabilities are developed and leveraged, complementing our broad quantitative approach.

Our research focused on direct effects of each capability on performance. However, dynamic capabilities likely also have **indirect or interrelated effects**. For instance, learning orientation might enhance innovation capability, which then affects performance. Future research can use structural equation modeling to explore the causal chain among capabilities (mediating relationships) and perhaps identify if some capabilities act as enablers for others. We did hint at such interplay – e.g., learning enabling adaptability – which could be quantified in further studies.

It's also worth exploring performance in a multi-dimensional way. We treated business performance as a general construct. Subsequent research might differentiate between financial performance, market performance (growth, market share), and perhaps non-financial performance (customer satisfaction, internal process improvements) to see if dynamic capabilities have different effects on different aspects of success. For example, innovation might correlate more with long-term growth or new product success, whereas marketing might correlate more with current sales and customer metrics.

From a theoretical standpoint, our study underscores the need to integrate dynamic capabilities research with **SME entrepreneurship research**. The entrepreneurial orientation component and learning culture are classic themes in SME literature.

Marrying these streams can yield a more holistic understanding of SME success factors. Thus, scholars should consider dynamic capabilities as part of the entrepreneurial toolkit of SMEs, bridging strategic management and entrepreneurship domains.

Finally, considering the evolving business landscape, future research could examine how external factors (e.g., digital transformation, crises like pandemics, global supply chain shifts) might moderate the importance of certain capabilities. For instance, did marketing capability become even more crucial during COVID-19 because firms had to reach customers online? Or did adaptability differentiate survivors? These nuanced questions can further inform both theory and practice.

CONCLUSION AND IMPLICATIONS

This study provides a comprehensive analysis of how dynamic capabilities influence the business performance of SMEs in Hanoi, Vietnam. Grounded in a solid theoretical framework and supported by empirical evidence, we conclude that **dynamic capabilities are vital drivers of SME success** in this context. The six components of dynamic capabilities identified – marketing capability, innovation capability, adaptability, business orientation, learning orientation, and corporate reputation – were all found to significantly and positively affect firm performance. Marketing capability and corporate reputation emerged as the most influential factors, reflecting the importance for SMEs of being customer-centric and building trust in the market. Adaptability, business (entrepreneurial) orientation, and learning orientation also make substantial contributions, underscoring that SMEs which are flexible, proactive, and knowledge-driven achieve better outcomes. Innovation capability, while statistically significant, currently plays a somewhat smaller role – a finding that highlights both the challenges SMEs face in innovating and the opportunity to gain more if innovation capabilities are strengthened.

The originality of this research lies in applying the dynamic capabilities lens to Vietnamese SMEs, thus filling a gap in the literature and providing localized insights. By combining qualitative and quantitative methods, we ensured that our conceptual model resonated with actual SME experiences in Hanoi and that our results are robust. The clear evidence linking dynamic capabilities to performance in an emerging economy context extends the validity of dynamic capability theory and offers a richer understanding of SME competitiveness in Vietnam.

Theoretical implications: This study contributes to strategic management theory by demonstrating that dynamic capabilities are a critical source of competitive advantage for SMEs in transitional markets. It highlights the need to consider context-specific capability priorities (e.g., marketing and reputation in Vietnam) when applying the theory globally. The research also bridges dynamic capabilities with SME entrepreneurship literature, suggesting that fostering an entrepreneurial, learning-oriented culture is part and parcel of dynamic capability development. For academia, our findings provide a foundation for further research on dynamic capabilities in other developing countries, encouraging comparative studies and longitudinal analyses to deepen the causal understanding of how these capabilities evolve and impact performance.

Practical implications for SME managers: SME owners and managers should evaluate their firms through the dynamic capabilities framework. We recommend that they:

- **Focus on Market Sensing and Customer Engagement:** Strengthen marketing capabilities by being highly responsive to customer needs and agile in marketing strategy. This drives sales and growth, as evidenced by the strongest performance impact of marketing capability in our study. SMEs should leverage digital tools and creative marketing to compete effectively, even against larger firms.
- **Build a Trusted Brand:** Invest in activities that enhance corporate reputation, such as improving product/service quality, customer service, and fulfilling commitments. A good name is an invaluable asset that can directly translate into customer loyalty and competitive advantage. SMEs may consider differentiating themselves through quality certifications or social responsibility to bolster reputation.
- **Embrace Entrepreneurial Proactiveness:** Cultivate a business orientation that encourages proactiveness and sensible risk-taking. This means being the first to seize opportunities and not shying away from new ventures. Such a stance has long-term benefits for capturing market space and is associated with better performance.
- **Enhance Organizational Flexibility:** Improve adaptability by streamlining decision processes and maintaining flexibility in operations. Companies should be ready to pivot strategies when external conditions shift (as the recent global disruptions have shown). Regular scenario planning and quick reallocation of resources when needed can help SMEs stay resilient and exploit new opportunities.
- **Promote Continuous Learning:** Develop a learning orientation in the company culture. Managers should lead by example in valuing learning and innovation, and systems should be put in place to capture lessons from both successes and failures. Training employees and sharing knowledge internally will improve the firm's ability to adapt and innovate over time, feeding into better performance.

- **Pursue Incremental Innovation:** Even if radical innovation is difficult, strive for continuous improvement and incremental innovation in products, services, and processes. Small innovations can add up and also prepare the ground for bigger innovations in the future. Collaborating in innovation networks or adopting existing technologies in innovative ways can be effective strategies for SMEs with limited R&D capacity.

By systematically building these capabilities, SMEs in Vietnam can improve not only their financial outcomes but also their competitiveness and longevity in a fast-changing market. The insights from this study give SME managers a roadmap of capability areas to benchmark and develop within their businesses.

Implications for policymakers: The government and relevant agencies should recognize that facilitating SME development goes beyond financial assistance or deregulation – it should include capability development. We propose several policy measures:

- **Enhance Support Programs:** Introduce or expand government-sponsored programs that train SMEs in marketing, digital skills, quality management, and innovation management. For example, workshops on e-commerce marketing or branding for SMEs can significantly boost their marketing capability. Similarly, government grants or contests for SME innovation can incentivize creative improvements.
- **Foster a Collaborative Ecosystem:** Create platforms for SMEs to collaborate and learn from each other. Establish SME clusters, networking events, and mentorship schemes where experienced entrepreneurs guide newer ones on building dynamic capabilities. By encouraging knowledge exchange and partnerships (even among competitors, in pre-competitive ways), overall capability levels in the SME community can rise, benefiting the economy at large.
- **Provide Incentives for Capability Building:** Design incentives (tax breaks, subsidies) for SMEs that invest in their capabilities. For instance, if an SME spends on employee training or implements a recognized quality management system, they could receive some form of support. This would encourage more firms to proactively upgrade their skills and systems.
- **Improve Information and Advisory Services:** Often SMEs fail to adapt simply due to lack of information. Government agencies should ensure timely dissemination of information about market changes, legal and regulatory updates, and technological trends. Extension services or consulting help (possibly via public-private partnerships) can advise SMEs on how to adapt to these changes, effectively bolstering their adaptability and learning capabilities on a broad scale.
- **Encourage Branding and Market Expansion:** Support SMEs in participating in trade fairs, international exhibitions, and online marketplaces. By facilitating market access and exposure, policymakers help SMEs build reputation and marketing reach beyond their immediate geography. Additionally, developing a “Made in Vietnam” branding campaign that highlights quality SME products could indirectly raise the reputation of Vietnamese SME brands collectively.
- **Embed Dynamic Capabilities in National SME Strategy:** Align national strategies and action plans for SME development with the goal of enhancing dynamic capabilities. This means tracking metrics such as innovation rates, training uptake, and digital adoption among SMEs as key performance indicators of policy success, not just traditional metrics like number of new SMEs or credit disbursed.

Implementing these policy implications would contribute to a more robust, innovative, and resilient SME sector in Vietnam, which in turn can drive sustainable economic growth and competitive integration into global markets.

In conclusion, this study demonstrates that dynamic capabilities are a linchpin of business performance for SMEs in Hanoi. Emphasizing such capabilities is a relatively new and innovative approach in the Vietnamese context, and our research provides empirical justification for it. By shedding light on which capabilities matter most and how they contribute to success, we equip both business leaders and policymakers with knowledge to act. If Vietnamese SMEs can internalize these findings – becoming more marketing-savvy, adaptable, innovative, learning-oriented, entrepreneurial, and reputation-conscious – they will not only improve their own performance but also collectively enhance the resilience and dynamism of the broader economy. We hope this work spurs further research and action to harness the power of dynamic capabilities in Vietnam and similar emerging markets, where the agility and competitiveness of SMEs are crucial for future prosperity.

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REFERENCES

1) Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
2) Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.

3) Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135–172.
4) Shih-Yi Chien, & Ching-Han Tsai. (2012). Dynamic capability, knowledge, learning, and firm performance. *Journal of Organizational Change Management*, 25(3), 434–444.
5) Shu-Mei Tseng, & Pei-Shan Lee. (2014). The effect of knowledge management capability and dynamic capability on organizational performance. *Journal of Enterprise Information Management*, 27(2), 158–179.
6) Zhou, K. Z., & Li, C. B. (2010). How strategic orientations influence the building of dynamic capability in emerging economies. *Journal of Business Research*, 63(3), 224–231.