INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ECONOMICS & MANAGEMENT SCIENCES

OPEN ACCESS JOURNAL

Vol 15, Issue 1, (2026) E-ISSN: 2226-3624

Information Technology Capabilities and Manufacturing Performance in SMEs: A Corporate Entrepreneurship Perspective

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DOI Link: http://dx.doi.org/10.6007/IJAREMS/v15-i1/27365

Published Online: 21 January 2026

Abstract

With relevance to developing nations like the United Arab Emirates, this conceptual analysis looks at how information technology (IT) affects manufacturing performance in small and medium-sized businesses (SMEs). Because IT is frequently viewed as a binary adoption variable rather than as a collection of strategic capabilities, previous research reports inconsistent performance consequences despite widespread digital adoption. The goal of this research is to close this gap by identifying and synthesising important information technology components that help SMEs turn digital investment into long-term manufacturing success. To explain how IT infrastructure flexibility, IT integration, and IT alignment shape entrepreneurial behaviours that drive performance outcomes—business venturing, proactivity, and self-renewal—the paper conceptually analyses previous empirical and theoretical studies, drawing on the resource-based view and corporate entrepreneurship literature. According to the assessment, IT is more valuable when it is set up as an organisational capability and activated by entrepreneurial initiative as opposed to routine automation. The study adds a

capability-and-conversion viewpoint to the field of SME digitisation studies. It lacks empirical testing because it is a conceptual study; quantitative and longitudinal methodologies should be used in future research to validate the framework.
Keywords: Information, Technology, Manufacturer, SMEs

Introduction

Across emerging economies, small and medium-sized enterprises (SMEs) play a critical role in job creation, industrial output, and inclusive economic growth (Ayyagari, Beck, & Demirguc-Kunt, 2007; Tarutė & Gatautis, 2014). In the United Arab Emirates (UAE), SMEs are widely recognised as a cornerstone of economic diversification and competitiveness, particularly within the manufacturing sector. However, manufacturing SMEs continue to operate under conditions of demand volatility, rising cost pressures, supply chain disruptions, and intensifying digital competition (Schilirò, 2015; Refass et al., 2023; Al Jneibi & Kudus, 2024). These challenges have increased policy and managerial emphasis on digitalisation and information technology (IT) as mechanisms for improving operational efficiency, responsiveness, and competitiveness.

Despite this emphasis, empirical research consistently shows that IT investment alone does not guarantee superior firm performance. Rather, IT creates value only when it is configured, integrated, and deployed as an organisational capability that is strategically aligned with business objectives and embedded within firm routines and processes (Bharadwaj, 2000; Wade & Hulland, 2004a). Nevertheless, a substantial portion of the SME literature continues to conceptualise IT in binary terms—whether firms adopt or do not adopt specific technologies—thereby underemphasising the capability-based mechanisms through which IT generates performance benefits. This adoption-centric perspective limits explanatory power and obscures why manufacturing SMEs with comparable digital investments frequently experience markedly different performance outcomes (Agboh, 2015; AlBar & Hoque, 2019; Ntwoku, Negash, & Meso, 2017).

This conceptual review addresses a central and unresolved problem in the literature: manufacturing SMEs may invest in digital technologies yet fail to translate these investments into sustained manufacturing performance because the organisational and behavioural mechanisms that convert IT capability into strategic and market-facing outcomes remain insufficiently specified. Drawing on the Resource-Based View (RBV), the paper argues that IT capabilities can constitute valuable, rare, and difficult-to-imitate resources when they are embedded in organisational processes, skills, and governance structures (Wernerfelt, 1984; Barney, 2001; Wade & Hulland, 2004a). From this perspective, IT infrastructure, integration routines, and alignment practices become sources of advantage not as stand-alone assets, but as firm-specific capability bundles.

However, while RBV explains why IT capabilities can matter, it provides limited insight into how such capabilities are activated and leveraged over time to produce innovation, strategic change, and competitive performance—particularly in resource-constrained SME contexts. Possessing IT capability does not automatically result in new products, new markets, or renewed operating models. Instead, these outcomes depend on managerial intent, entrepreneurial behaviour, and organisational processes that mobilise resources into action. To address this limitation, this paper integrates corporate entrepreneurship (CE) as a

behavioural and strategic conversion mechanism that translates IT-enabled potential into performance outcomes through entrepreneurial actions dispersed across the firm (Zahra, 1991; Birkinshaw, 2003).

Within this integrated framework, corporate entrepreneurship is conceptualised as the pathway through which IT capabilities are transformed into business venturing, proactive market behaviour, and organisational self-renewal. By linking RBV and CE, the paper advances a capability-and-conversion logic that explains why IT investments yield heterogeneous outcomes among manufacturing SMEs. This perspective reframes digitalisation not as a question of technology acquisition, but as a strategic system requiring both capability development and entrepreneurial enactment. Accordingly, the objectives of this conceptual review are threefold. First, it synthesises prior research linking IT capabilities to manufacturing SME performance, with particular attention to emerging-economy contexts. Second, it clarifies how corporate entrepreneurship operationalises the conversion mechanism through which IT capabilities influence performance. Third, it proposes a UAE-relevant conceptual framework that distinguishes three key IT capability dimensions—IT infrastructure flexibility, IT integration, and IT alignment—and links them to manufacturing performance through entrepreneurial activation (Bharadwaj, 2000; Henderson & Venkatraman, 1993; Chen et al., 2015a).

The main contribution of the paper lies in offering a theoretically grounded explanation for inconsistent IT–performance findings in SME research. By explicitly modelling the conversion of IT capability into performance through corporate entrepreneurship, the framework helps reconcile mixed empirical results and advances understanding of how digitalisation can support manufacturing competitiveness in SMEs. In doing so, the paper positions digital capability not merely as a technical investment, but as a strategic and entrepreneurial resource whose value depends on how it is mobilised within the firm.

Literature Review

According to Jahanshahi, Zhang, and Brem (2013) and Pula & Berisha (2015), SMEs differ structurally from large businesses in that they are typically resource-constrained, managerially centralised, and operationally informal. These characteristics influence how IT is implemented, managed, and exploited. Both benefits and drawbacks may result from these structural characteristics. SMEs can, on the one hand, be more adaptable, nearer to clients, and capable of swiftly rearranging resources. However, IT projects may continue to be disjointed, underutilised, or out of alignment with strategy due to tight resources, a lack of specialised skills, and reliance on a small leadership team (AlBar & Hoque, 2019; Lehner & Sundby, 2018). In emerging-economy settings, barriers such as infrastructure limitations, cost constraints, and capability gaps frequently explain why IT adoption does not automatically produce productivity and profitability gains (Agboh, 2015; Ntwoku et al., 2017). This helps motivate a shift from an “adoption” view to a “capability” view of IT in SMEs, where the key question becomes how IT is mobilised into coordinated routines and strategic action (Bharadwaj, 2000; Wade & Hulland, 2004a).

Resource-Based View

RBV argues that sustained competitive advantage comes from resources and capabilities that are valuable and difficult to replicate, and from the firm’s ability to organise those resources

effectively (Wernerfelt, 1984; Barney, 2001). Applied to information systems research, RBV provides a strong explanation for why IT's performance effects vary: hardware and software are often imitable, but firm-specific ways of integrating systems, developing skills, building governance, and aligning IT with strategic priorities can be rare and path dependent (Bharadwaj, 2000; Wade & Hulland, 2004a). Additionally, RBV is consistent with the dynamic capabilities view, which emphasises reconfiguration and adaptation in turbulent environments. This is particularly pertinent for manufacturing SMEs that are subject to supply chain shocks, changing customer demands, and technological advancements (Teece, Pisano, & Shuen, 1997; Eisenhardt & Martin, 2000; Barreto, 2010). IT gains strategic significance in this coupled logic as a capacity bundle integrated into routines that facilitate sensing, coordination, reconfiguration, and execution rather than as a stand-alone asset.

However, RBV has been criticised for underemphasising external dynamics and failing to adequately describe how skills are acquired and enacted (Rumelt, 1991; Stinchcombe, 2000; Barney, 2001). In SME contexts, this restriction is particularly apparent: even if a company has IT resources, the conversion into new products, new markets, or operational renewal depends on managerial intent, entrepreneurial activity, and organisational procedures that put resources into action. Thus, by adding corporate entrepreneurship as the "activation" and "conversion" mechanism that converts IT capability into strategic action and performance, the theory put forth here expands on RBV.

IT Capabilities in Manufacturing SMEs

The ability of a company to create, integrate, and use IT resources to meet business goals and enhance performance is sometimes referred to as IT competence (Duncan, 1995; Bharadwaj, 2000). Because production planning, inventory visibility, supplier coordination, quality assurance, and responsiveness depend on fast information flows and decision speed, IT capability is especially important for manufacturing SMEs (Mithas et al., 2012; Ngai, Chau, & Chan, 2011; Liu et al., 2016). Because various IT capability components generate value through various methods, the literature increasingly views IT capability as multifaceted rather than monolithic (Dale Stoel & Muhanna, 2009; Chen et al., 2015a).

First, enterprises can swiftly adjust to new product requirements, process modifications, and unstable market situations thanks to IT infrastructure flexibility, which reflects the modularity, scalability, and reconfigurability of IT infrastructure (Duncan, 1995; Bhatt et al., 2010). Flexibility in manufacturing facilitates quicker reconfiguration of production-related systems, more seamless product variant introduction, and responsiveness to changing demand. According to conceptual and empirical research, flexible IT infrastructure helps businesses maintain their agility and enhance their competitive results in turbulent environments (Bhatt et al., 2010; Chen et al., 2017). Flexibility has a greater strategic significance for SMEs since it lessens the time and expense of change, freeing up scarce resources for opportunity capture rather than system overhaul.

According to Saraf, Langdon, and Gosain (2007) and Rai and Tang (2010), IT integration measures the degree of smooth and real-time data transmission between internal and external partners, facilitating coordination throughout the supply network and enhancing decision quality. In order to reduce bottlenecks and promote supply chain agility—a crucial performance driver in manufacturing—integration helps link procurement, production,

logistics, and customer-facing processes (Swafford, Ghosh, & Murthy, 2008; Sundram et al., 2018). Integration has a relational dimension in SMEs as well. It can increase inter-organizational visibility and develop relationships, but it necessitates governance, trust, and process redesign, which further emphasises the importance of capability rather than just technology.

In order to ensure that IT investment supports competitive aims rather than turning into a stand-alone technical project, third, IT alignment refers to the fit between IT activities and business goals (Henderson & Venkatraman, 1993; Kearns & Lederer, 2003; Luftman & Brier, 1999). Because funds are restricted and strategic decisions are focused among a small top team, alignment is especially important for SMEs. Misaligned IT investments can deplete limited resources without boosting market outcomes. By connecting IT decisions to strategy and execution, alignment practices and information sharing can generate competitive advantage, according to research on small manufacturing companies (Cragg, King, & Hussin, 2002; Kearns & Lederer, 2003).

Because each of these dimensions contributes to performance through different pathways—flexibility facilitates quick adaptation, integration facilitates coordination and visibility, and alignment facilitates strategic direction and disciplined resource allocation—treating them separately increases explanatory power (Chen et al., 2015a; Chung, Rainer, & Lewis, 2003). In UAE manufacturing SMEs, where digital transformation is frequently promoted at the governmental level but results may depend on how businesses develop and coordinate capabilities internally, this multifaceted perspective is especially helpful (Schilirò, 2015; Abudaqa et al., 2022; Al Jneibi & Kudus, 2024).

Corporate Entrepreneurship

Corporate entrepreneurship extends entrepreneurship to established firms and emphasises venturing, innovation, proactivity, and renewal as routes to strategic transformation (Zahra, 1991; Covin & Slevin, 1991). CE scholarship acknowledges definitional variation, but converges on the idea that firms can behave entrepreneurially through opportunity recognition, resource reallocation, and new offerings or business models (Burgelman, 1983; Antoncic & Hisrich, 2001). Birkinshaw's (2003) "dispersed" CE is particularly relevant to SMEs because entrepreneurial behaviours are often embedded across teams and owner-manager routines rather than confined to a separate corporate venturing unit.

Consistent with the provided conceptual base, CE is treated here through three practical dimensions. Business venturing concerns creating new lines, entering new markets, or developing new products within the firm (Vesper, 1984; Stopford & Baden-Fuller, 1994; Antoncic & Hisrich, 2001). According to Miller (1983) and Venkatraman (1989), proactivity is a forward-thinking approach that shapes demand rather than just responding to it by anticipating changes in the market and acting ahead of competitors. Strategic and structural change that redefines procedures, governance, and competitive positioning in order to maintain relevance is referred to as self-renewal (Zahra, 1993; Chrisman & Sharma, 1999). These dimensions naturally translate into operational reality in manufacturing SMEs: proactivity entails early adoption of production and coordination tools, renewal entails redesigning workflows, planning routines, and supply chain practices, and venturing entails new product families or customer segments.

The framework's main contention is that CE transforms potential energy—better information, quicker coordination, and increased adaptability—into entrepreneurial action that results in observable performance outcomes. According to Chen et al. (2015a) and Rehman et al. (2020), this helps explain why IT sometimes produces strong performance effects and other times produces weak or inconsistent results. The difference is typically found in whether IT capability is mobilised for market moves, entrepreneurial experimentation, and strategic renewal versus being used only for routine automation. Put differently, CE is positioned as a behavioural bridge that connects performance and IT capacity.

The Conceptual Framework Logic

The proposed model positions IT capabilities (flexibility, integration, alignment) as RBV-based strategic resources that influence manufacturing performance both directly and indirectly through corporate entrepreneurship. Directly, flexible, integrated, and aligned IT capabilities can improve productivity, quality, delivery reliability, responsiveness, and cost efficiency by enhancing information flows, process coordination, and decision speed (Bhatt et al., 2010; Sundram et al., 2018; Cragg et al., 2002). Indirectly, these IT capabilities enable and shape business venturing, proactivity, and self-renewal by lowering the friction of experimentation, expanding cross-functional and partner collaboration, and ensuring strategic coherence in entrepreneurial initiatives (Birkinshaw, 2003; Rai & Tang, 2010; Chen et al., 2015a).

Within this logic, IT infrastructure flexibility is most strongly tied to rapid reconfiguration and experimentation; IT integration is most strongly tied to cross-functional and partner coordination; and IT alignment is most strongly tied to strategic discipline and prioritisation of entrepreneurial initiatives. CE then channels these effects into market-facing outcomes: venturing produces new revenue streams and product-market options, proactivity improves timing and first-mover advantages, and self-renewal improves resilience and long-term competitiveness through transformation. The model is intended to be particularly relevant to UAE manufacturing SMEs, where digital transformation pressures, supply network dependencies, and industrial upgrading agendas create a high need for capability-based and entrepreneurial activation rather than tool-based adoption (Schilirò, 2015; Refass et al., 2023; Abudaqa et al., 2022).

Findings and Discussion

As a conceptual review, the “findings” are synthesised patterns and implications from prior research and the framework’s internal logic. A first central pattern is that IT capability is generally more predictive of SME outcomes than IT adoption. Across emerging-economy SME studies, the benefits of IT often depend on whether firms develop integration routines, build skills, and align IT with decision processes rather than simply purchasing systems (Bharadwaj, 2000; Wade & Hulland, 2004a; Lehner & Sundby, 2018). This pattern helps explain why adoption-focused research can overestimate IT’s uniform benefits and underestimate heterogeneity. In manufacturing SMEs, where operations depend on tight coordination, the capability lens clarifies why two firms with similar tools can exhibit different performance trajectories: one may automate inefficiencies, while another leverages IT to redesign workflows and enable innovation.

A second pattern is that the three IT capability dimensions plausibly operate through different mechanisms. IT infrastructure flexibility primarily supports adaptability. In manufacturing,

flexibility can compress changeover times in information flows (not necessarily physical changeovers), support rapid reconfiguration of production schedules, and make it easier to adjust systems for product variety and demand volatility (Bhatt et al., 2010; Chen et al., 2017). This suggests flexibility is most valuable under turbulence, where responsiveness becomes a competitive advantage rather than a cost. By contrast, IT integration is coordination-oriented and relational. Its value is amplified in supply-dependent manufacturing where visibility, real-time exchange, and synchronisation reduce delays and errors and improve reliability (Saraf et al., 2007; Rai & Tang, 2010; Sundram et al., 2018). Integration also expands the firm's information boundary, making it easier to access supplier knowledge and coordinate joint problem-solving—capabilities that matter for both operational continuity and innovation. IT alignment is managerial and strategic: it shapes resource allocation discipline and ensures IT projects reinforce business priorities. In SMEs, alignment reduces the risk of fragmented or "technology-led" investments that do not improve market outcomes, and it can institutionalise routines for deciding which digital initiatives deserve scarce attention and funding (Henderson & Venkatraman, 1993; Kearns & Lederer, 2003; Cragg et al., 2002).

A third and more integrative finding is that corporate entrepreneurship offers a persuasive explanation for when IT capability becomes performance. IT capability improves information quality, coordination, and decision capacity, but CE determines whether that capacity is used to pursue new markets, introduce new offerings, and renew the organisation's strategy and processes (Zahra, 1991; Birkinshaw, 2003). This logic helps resolve the long-standing ambiguity in IT business value research—why IT effects are sometimes strong and sometimes weak—by suggesting that weak effects occur when SMEs use IT mainly for routine automation, while stronger effects occur when IT supports entrepreneurial behaviours such as opportunity recognition, experimentation, and strategic change (Chen et al., 2015a; Rehman et al., 2020).

Conceptually, business venturing can be viewed as the commercialisation channel. Flexible infrastructure reduces the time and cost of launching new initiatives because systems can be reconfigured without major disruption. Integration strengthens venturing by enabling cross-functional coordination (design–procurement–production–sales) and partner synchronisation needed to scale new offerings (Rai & Tang, 2010; Swafford et al., 2008). Alignment matters by ensuring venturing is strategically coherent; without alignment, SMEs may overextend into initiatives that do not fit their capabilities or market positioning, producing risk without return. Proactivity functions as the timing and sensing channel. Integrated and aligned IT can expand the firm's ability to interpret demand signals and coordinate rapid responses, but a proactive posture determines whether the firm acts early enough to gain first-mover advantages (Miller, 1983; Venkatraman, 1989). Self-renewal is the transformation channel. In manufacturing SMEs, renewal can include redesigning workflows, upgrading planning systems, adopting new coordination routines with suppliers, and reshaping product strategy. Here, alignment is especially critical because renewal requires clear direction, while flexibility and integration provide the implementation capacity to execute change without operational breakdown (Henderson & Venkatraman, 1993; Chrisman & Sharma, 1999).

For the UAE context, the framework implies that capability-and-conversion dynamics may be particularly pronounced. UAE manufacturing SMEs often operate in supply networks and face

pressure to upgrade processes and product offerings, which increases the value of integration and alignment for reliability and strategic focus (Schilirò, 2015; Refass et al., 2023). At the same time, shifting regional demand and competitive import pressures can increase the value of flexibility for rapid adaptation (Chen et al., 2017). The framework also aligns with evidence that innovation and digital transformation strategies in UAE SMEs can be linked to performance, but that outcomes depend on how digital facilitators are deployed within coherent transformation logic (Abudaqa et al., 2022). In practical terms, the model suggests that SMEs should evaluate IT projects not only by short-term cost savings, but by whether investments increase flexibility, integration, and alignment *and* whether the organisation builds entrepreneurial routines that use those capabilities for venturing, proactivity, and renewal.

Conclusion

This conceptual paper reframed the performance impact of IT in manufacturing SMEs as a capability-and-conversion problem rather than an adoption problem. Anchored in RBV, the paper argued that IT becomes strategic when it is configured as firm-specific capability—embedded in routines, skills, and coordinated processes—rather than treated as an isolated technological asset (Wernerfelt, 1984; Barney, 2001; Bharadwaj, 2000). IT infrastructure flexibility, IT integration, and IT alignment were presented as complementary capability dimensions that can improve manufacturing performance directly by strengthening information flows, coordination, and decision speed. However, the paper's key argument was that RBV alone does not fully specify how IT capability becomes competitive performance in SMEs. To address this gap, corporate entrepreneurship was integrated as the conversion mechanism: venturing, proactivity, and self-renewal represent the entrepreneurial actions through which IT-enabled potential is activated into market-facing moves and strategic transformation (Zahra, 1991; Birkinshaw, 2003; Antoncic & Hisrich, 2001).

The main conceptual contribution is a structured framework that explains heterogeneity in IT value creation among manufacturing SMEs. It clarifies why some SMEs gain substantial performance returns from IT while others do not, even when their spending appears similar: the difference lies in whether IT capabilities are aligned, integrated, and flexible *and* whether the firm mobilises those capabilities through entrepreneurial behaviours. This contributes to the SME digitalisation literature by shifting attention from adoption metrics to capability configuration and organisational enactment, which is consistent with IS RBV extensions emphasising organisational complementarities and strategic alignment (Wade & Hulland, 2004a; Henderson & Venkatraman, 1993; Kearns & Lederer, 2003). It also contributes to CE research by positioning IT capability as a strategic antecedent that shapes the firm's capacity to venture, act proactively, and renew itself, aligning with work linking corporate entrepreneurship to performance and competitive advantage (Zahra, 1991; Bierwerth et al., 2015; Yunis, El-Kassar, & Tarhini, 2017).

Several limitations should be acknowledged. First, as a conceptual review, the model does not empirically validate causal relationships or compare effect sizes among IT capability dimensions and CE components. Second, although the framework partially addresses RBV critiques by including CE as an action mechanism, it still does not fully model external contingencies such as regulatory shifts, industry competitive intensity, or macroeconomic disruptions that may strengthen or weaken capability–performance links (Rumelt, 1991).

Third, measurement challenges may arise because, in practice, alignment and entrepreneurial behaviours can overlap: for example, strategic alignment routines may reflect an owner-manager's entrepreneurial orientation, making discriminant validity important in empirical work (Cragg et al., 2002). Fourth, the framework emphasises supplier-oriented integration; future conceptualisations could explicitly incorporate customer integration, platform participation, and analytics maturity, which increasingly shape manufacturing competitiveness (Rai & Tang, 2010; Ngai et al., 2011).

The framework can be expanded in a number of ways by future studies. The suggested capability-and-conversion logic would be validated by empirical testing in UAE manufacturing SMEs to see whether flexibility, integration, or alignment is most predictive of performance under local conditions (Schilirò, 2015; Refass et al., 2023). To define boundary conditions and explain when entrepreneurial conversion is most crucial, researchers can include moderators such environmental volatility, company age, production type (batch versus customised), or availability of digital skills (Chen et al., 2017; Lehner & Sundby, 2018). resource assumptions by looking at how SMEs develop, lose, and reorganise their entrepreneurial practices and IT capabilities (Stinchcombe, 2000; Teece et al., 1997; Helfat & Peteraf, 2003).

Because capability development and renewal occur over time, longitudinal designs would be particularly useful. By tracking how SMEs acquire, lose, and reconfigure IT capability and entrepreneurial routines, these designs can directly address RBV's criticism of static resource assumptions (Stinchcombe, 2000; Teece et al., 1997; Helfat & Peteraf, 2003). Lastly, a more context-sensitive and action-oriented understanding of digital capability and performance in manufacturing SMEs could be produced by mixed-method studies (surveys plus case studies) that show how SMEs actually develop alignment routines, negotiate integration with partners, and foster dispersed corporate entrepreneurship under resource constraints (Birkinshaw, 2003; Rehman et al., 2020).

References

Agboh, D. K. (2015). Drivers and challenges of IT adoption by SMEs in Accra metropolis, Ghana. *Journal of Technology Research*.

AlBar, A. M., & Hoque, M. R. (2019). Factors affecting the adoption of information and communication technology in small and medium enterprises: A perspective from rural Saudi Arabia. *Information Technology for Development, 25*(4), 715–738.

Al Jneibi, F. A. A. R., & Binti Kudus, N. (2024). Unlocking the potential of SMEs in the UAE: Exploring challenges, opportunities, and the role of organizational learning in manufacturing innovation. *International Journal of Academic Research in Business and Social Sciences, 14*(11), 2705–2712.

Antoncic, B., & Hisrich, R. D. (2001). Intrapreneurship: Construct refinement and cross-cultural validation. *Journal of Business Venturing*.

Ayyagari, M., Beck, T., & Demirguc-Kunt, A. (2007). Small and medium enterprises across the globe. *Small Business Economics*.

Barney, J. B. (2001). Is the resource-based "view" a useful perspective for strategic management research? Yes. *Academy of Management Review*.

Barreto, I. (2010). Dynamic capabilities: A review of past research and an agenda for the future. *Journal of Management, 36*(1), 256–280.

Bharadwaj, A. S. (2000). A resource-based perspective on information technology capability and firm performance: An empirical investigation. *MIS Quarterly*.

Bhatt, G., Emdad, A., Roberts, N., & Grover, V. (2010). Building and leveraging information in dynamic environments: The role of IT infrastructure flexibility as enabler of organizational responsiveness and competitive advantage. *Information & Management, 47*(7–8), 341–349.

Bierwerth, M., Schwens, C., Isidor, R., & Kabst, R. (2015). Corporate entrepreneurship and performance: A meta-analysis. *Small Business Economics, 45*(2), 255–278.

Birkinshaw. (2003). *The paradox of corporate entrepreneurship*.

Chrisman, J. J., & Sharma, P. (1999). Toward a reconciliation of the definitional issues in the field of corporate entrepreneurship. *Entrepreneurship Theory and Practice*.

Chen, Y. (2015a). IT capabilities and product innovation performance: The roles of corporate entrepreneurship and competitive intensity. *Information & Management, 52*(6), 643–657.

Chen, Y. (2017). Improving strategic flexibility with information technologies: Insights for firm performance in an emerging economy. *Journal of Information Technology, 32*(10), 10–25.

Cragg, P., King, M., & Hussin, H. (2002). IT alignment and firm performance in small manufacturing firms. *European Journal of Information Systems*.

Dale Stoel, M., & Muhanna, W. A. (2009). IT capabilities and firm performance: A contingency analysis of the role of industry and IT capability type. *Information & Management*.

Duncan, N. B. (1995). Capturing flexibility of information technology infrastructure: A study of resource characteristics and their measure. *Journal of Management Information Systems, 12*(2), 37–57.

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal, 21*(10–11), 1105–1121.

Helfat, C. E., & Peteraf, M. A. (2003). The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal, 24*(10), 997–1010.

Henderson, J. C., & Venkatraman, H. (1993). Strategic alignment: Leveraging information technology for transforming organizations. *IBM Systems Journal*.

Jahanshahi, A. A., Zhang, S. X., & Brem, A. (2013). E-commerce for SMEs: Empirical insights from three countries. *Journal of Small Business and Enterprise Development, 20*(4), 849–865.

Kearns, G. S., & Lederer, A. L. (2003). A resource-based view of strategic IT alignment: How knowledge sharing creates competitive advantage. *Decision Sciences, 34*(1), 1–29.

Lehner, F., & Sundby, M. W. (2018). IT skills and capabilities for SMEs: Results from a structured literature analysis on the individual level. *Professional and Practice-based Learning, 21*, 55–69.

Liu, H. (2016). The configuration between supply chain integration and information technology competency: A resource orchestration perspective. *Journal of Operations Management, 44*, 13–29.

Luftman, J., & Brier, T. (1999). Achieving and sustaining business-IT alignment. *California Management Review*.

Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science, 29*(7), 770–791.

Mithas, S., Tafti, A., Bardhan, I., & Goh, J. M. (2012). Information technology and firm profitability: Mechanisms and empirical evidence. *MIS Quarterly, 36*(1), 205–224.

Ngai, E. W. T., Chau, D. C. K., & Chan, T. L. A. (2011). Information technology, operational, and management capabilities for supply chain agility: Findings from case studies. *Journal of Strategic Information Systems, 20*(3), 232–249.

Ntwoku, H., Negash, S., & Meso, P. (2017). IT adoption in Cameroon SME: Application of Bass diffusion model. *Information Technology for Development*.

Pula, J. S., & Berisha, G. (2015). Defining small and medium enterprises: A critical review. *Academic Journal of Business, Administration, Law and Social Science*.

Rai, A., & Tang, X. (2010). Leveraging IT capabilities and competitive process capabilities for the management of interorganizational relationship portfolios. *Information Systems Research, 21*(3), 516–542.

Rehman, N. (2020). Information technology and firm performance: Mediation role of absorptive capacity and corporate entrepreneurship in manufacturing SMEs. *Technology Analysis and Strategic Management, 32*(9), 1049–1065.

Refass, S., Lillywhite, J., Salem, F., Akrout, Z., Shaer, S., & Shibl, E. (2023). *The future of SMEs in the UAE* (Digital Economy series). SSRN.

Rumelt, R. P. (1991). How much does industry matter? *Strategic Management Journal*.

Saraf, N., Langdon, C. S., & Gosain, S. (2007). IS application capabilities and relational value in interfirm partnerships. *Information Systems Research*.

Schilirò, D. (2015). Innovation in small and medium enterprises in the United Arab Emirates. *International Journal of Social Science Studies, 3*, 148.

Stopford, J. M., & Baden-Fuller, C. W. F. (1994). Creating corporate entrepreneurship. *Strategic Management Journal*.

Sundram, V. P. K., Bahrin, A. S., Abdul Munir, Z. B., & Zolait, A. H. (2018). The effect of supply chain information management and information system infrastructure: The mediating role of supply chain integration towards manufacturing performance in Malaysia. *Journal of Enterprise Information Management, 31*(5), 751–770.

Swafford, P. M., Ghosh, S., & Murthy, N. (2008). Achieving supply chain agility through IT integration and flexibility. *International Journal of Production Economics, 116*(2), 288–297.

Tarutė, A., & Gatautis, R. (2014). IT impact on SMEs performance. *Procedia - Social and Behavioral Sciences, 110*(1), 1218–1225.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533.

Venkatraman, N. (1989). Strategic orientation of business enterprises: The construct, dimensionality, and measurement. *Management Science, 35*(8), 942–962.

Vesper. (1984). Three faces of corporate entrepreneurship: A pilot study.

Wade, M., & Hulland, J. (2004a). Review: The resource-based view and information systems research: Review, extension, and suggestions for future research. *MIS Quarterly, 28*(1), 107–142.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal, 5*(2), 171–180.

Yunis, M., El-Kassar, A. N., & Tarhini, A. (2017). Impact of IT-based innovations on organizational performance: The role of corporate entrepreneurship. *Journal of Enterprise Information Management*.

Zahra, S. A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of Business Venturing, 6*(4), 259–285.

Zahra, S. A. (1993). A conceptual model of entrepreneurship as firm behavior: A critique and extension.