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Innovation at the Core: How Digitalization Transforms SMEs' International Entrepreneurship Strategy

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ABSTRACT: In an era of rapid technological disruption, digitalization has become a critical enabler of international competitiveness for SMEs. Yet, the mechanisms through which digitalization shapes international entrepreneurship strategies (IES), particularly in resource-constrained contexts, remain underexplored. This study investigates the role of innovation capability in the relationship between digitalization and IES, focusing on SMEs in Ghana, a Sub-Saharan African economy where SMEs dominate national output but face persistent institutional and infrastructural challenges. Drawing on Dynamic Capabilities Theory (DCT), the study develops and empirically tests a structural model using survey data from 367 SMEs. Data was collected in two phases to minimize common method bias and analyzed through covariance-based structural equation modeling (CB-SEM). The results demonstrate that digitalization exerts a significant direct effect on IES and strongly predicts innovation capability. Innovation capability, in turn, positively influences IES. Mediation analysis confirms that innovation capability partially mediates the digitalization–IES relationship, highlighting that the strategic value of digitalization depends on SMEs' ability to develop and apply innovation routines. The findings contribute theoretically by extending DCT to the underexplored context of African SMEs, positioning innovation capability as a central mechanism that translates digital adoption into international performance. Practically, the study emphasizes that digital tools must be embedded in organizational innovation systems to drive global competitiveness, offering actionable insights for SME managers and policymakers.

This research underscores that sustainable internationalization in emerging markets requires not only digital adoption but also the dynamic capabilities necessary to transform technology into innovation-driven growth.

KEYWORDS: Digitalization, Innovation Capability, International Entrepreneurship Strategy, SMEs, Dynamic Capabilities, Ghana, Emerging Markets.

1. INTRODUCTION

In a global economy shaped by volatility, uncertainty, and rapid technological change, digitalization has emerged as a powerful force redefining the competitive boundaries of firms (Nambisan et al., 2019; Vial, 2019). For small and medium-sized enterprises (SMEs), particularly those in resource-constrained and institutionally fragmented environments, digitalization is not simply a technological advancement but a strategic necessity (Bharadwaj et al., 2013; Kraus et al., 2021). Increasingly, digital transformation is influencing how SMEs access international markets, identify and exploit entrepreneurial opportunities, and create value for globally dispersed customers (Li te al., 2018; Cenamor et al., 2019; Scuotto et al., 2022). In emerging economies such as Ghana, where infrastructural deficits and financial limitations have historically hindered SME development (Adomako et al., 2018), digitalization presents a critical opportunity to overcome traditional barriers to internationalization (Boso et al., 2023).

Digital tools such as artificial intelligence, cloud computing, and data analytics expand SMEs' capacity to engage with global markets. These technologies facilitate real-time interaction, reduce transaction costs, enable remote customer acquisition, and support access to market intelligence (Knight & Liesch, 2016; Jean & Kim, 2020; Zheng et al., 2023). However, digital adoption alone does not automatically lead to international entrepreneurial success. Firms must develop internal capabilities to adapt and apply digital tools in ways that generate competitive value across diverse and uncertain contexts (Teece, 2018; Bresciani et al., 2021; Del Giudice et al., 2022).

One such capability is innovation capability, which refers to a firm's capacity to develop, integrate, and deploy new knowledge in the creation of products, services, or processes that support strategic renewal and competitive advantage (Teece et al., 2016). In increasingly digitized and

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competitive environments, innovation capability enables SMEs to translate digital technologies into actionable innovations aligned with foreign market needs (Ferreira et al., 2019). For SMEs in emerging economies, where access to R&D infrastructure and formal innovation systems is often limited, innovation capability becomes particularly vital (Zhou et al., 2007; Amankwah-Amoah et al., 2021).

While prior studies have explored the relationship between digitalization and international entrepreneurship, much of this literature relies heavily on the Resource-Based View (RBV) (Barney, 1991; Wernerfelt, 1984), which conceptualizes digital technologies as strategic resources. Yet RBV's largely static orientation underestimates the dynamic processes required to reconfigure resources in rapidly changing international environments (Teece, 2014). To address this gap, this study draws on Dynamic Capabilities Theory (DCT), which emphasizes a firm's ability to sense, seize, and reconfigure resources in response to environmental change (Teece et al., 1997; Eisenhardt & Martin, 2000). From this perspective, digital tools only yield international performance outcomes when integrated with firm-specific routines and capabilities that dynamically adjust to evolving global conditions (Ambrosini & Bowman, 2009; Helfat & Winter, 2011). Grounded in this theoretical framing, the present study seeks to determine how digitalization impacts the international entrepreneurship strategies of Ghanaian SMEs and, more specifically, the mediating role played by innovation capability in shaping this relationship.

2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

2.1 Dynamic Capabilities Theory

The Resource-Based View (RBV) has traditionally explained firm competitiveness by focusing on valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). While RBV remains influential, its static orientation offers limited insight into firms operating in volatile international environments shaped by rapid digital change (Cuthbertson & Furseth, 2022). Dynamic Capabilities Theory (DCT) extends RBV by emphasizing a firm's ability to sense opportunities, seize them through resource commitment, and reconfigure capabilities to sustain performance under turbulence (Teece et al., 1997; Wang & Ahmed, 2007). From this perspective, digitalization is not simply a resource but a catalyst that requires integration with firm-specific routines and innovation systems (Matarazzo et al., 2021). For SMEs in emerging economies such as Ghana, which often lack resource buffers, dynamic capabilities are crucial for responding to global shifts with agility. Within DCT, innovation capability emerges as a central mechanism. It allows SMEs to convert digital tools into actionable offerings tailored to diverse international markets, overcoming institutional and infrastructural limitations (Amankwah-Amoah et al., 2021). Thus, innovation capability is conceptualized as the mediating dynamic capability linking digitalization to international entrepreneurship strategy.

2.2 Digitalization and International Entrepreneurship Strategy

Digitalization has transformed how firms identify and pursue opportunities across borders. For Small and Medium-sized Enterprises (SMEs), it offers a practical means to overcome barriers such as limited capital, lack of market information, and institutional distance (Nambisan, 2018; Bargoni et al., 2024). By embedding digital tools into operations, SMEs can improve efficiency, extend market reach, and respond quickly to global changes. International entrepreneurship involves seeking opportunities in foreign markets to drive growth and competitiveness (Zahra, 2021). Digitalization facilitates this by providing real-time market access, enabling global communication, and supporting low-cost entry through digital platforms (Sassi, 2024). This allows SMEs to explore and engage international markets with reduced risk.

Digital tools also promote innovation and learning. With cloud systems, analytics, and virtual collaboration, SMEs can adapt products to local needs and collaborate with international partners (Han& Trimi, 2022; Pundziene & Geryba, 2023). These capabilities enhance flexibility and responsiveness.

Studies show that digitalization strengthens SMEs' international orientation by improving decisions, lowering transaction costs, and expanding access (Pundziene & Geryba, 2023; Bargoni et al., 2024). While challenges like digital skill gaps and regulatory differences persist, especially in Ghana (Adomako et al 2019; Lanivich et al., 2025), the influence of digitalization on international entrepreneurship is significant. Based on this, the following hypothesis is proposed:

H1: Digitalization has a significant positive effect on international entrepreneurship strategy.

2.3 Digitalization and Innovation Capability

Digitalization, the integration of digital technologies into business operations, is widely recognized as a key driver of innovation capability in SMEs (Nambisan, 2017; Vial, 2019). It enables firms to sense changes, seize opportunities, and transform processes for innovation (Teece, 2007). Tools like data analytics and digital platforms offer real-time insights and support rapid idea development, helping SMEs reconfigure resources and create new offerings (Cenamor et al., 2019; Scuotto et al., 2022). In emerging markets such as Ghana, digitalization helps overcome infrastructure gaps and supports adaptive innovation (Pagani & Pardo, 2017).

Studies show that digitalization enhances access to markets, customer insights, and collaboration networks, improving responsiveness and creativity (Loebbecke & Picot, 2015). Firms with higher digital adoption report stronger innovation outcomes, particularly in product and business model development (Ferreira et al., 2019; Aboelmaged, 2014). Thus, SMEs that invest in digital tools are better positioned for sustained innovation (Kallmuenzer et al., 2025).

H2: Digitalization has a significant positive effect on the innovation capability.

2.4 Innovation Capability and International Entrepreneurship Strategy

Innovation capability is a critical driver of international success for Small and Medium-sized Enterprises (SMEs). It refers to a firm's capacity to generate, integrate, and apply new knowledge to develop products, services, or processes that create value and sustain competitiveness (Migdadi, 2022; Javaid et al., 2022). This capability is essential for international entrepreneurship, which involves identifying and exploiting opportunities beyond domestic markets (Lam et al., 2021). As SMEs enter foreign markets, they face diverse customer needs, regulatory environments, and institutional conditions. Innovation capability enables firms to adapt by customizing offerings, reconfiguring operations, and aligning with local expectations (Leão & da Silva, 2021). Firms with stronger innovation capacity are better positioned for international competitiveness through differentiation, responsiveness, and agility (Al-Khatib & Al-ghanem, 2022). It also supports both incremental and radical innovation. While incremental innovation refines existing solutions, radical innovation introduces disruptive offerings that create new market spaces (Song et al.,

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2022). SMEs that leverage both are more likely to achieve and sustain international performance. Thus, innovation capability acts as both a competitive asset and a strategic enabler of international entrepreneurship. Accordingly, we posit that the following hypothesis holds:

H3: Innovation capability has a significant positive effect on Ghanaian SMEs' international entrepreneurship strategy.

2.5 The Mediating Role of Innovation Capability

Digitalization enhances the operational and strategic capabilities of firms by enabling data-driven decision-making, market intelligence, and global connectivity (Gong et al., 2023; Capurro et al., 2022). However, its contribution to international entrepreneurship is not solely a function of technology deployment, but also of how effectively firms transform these digital resources into innovation outcomes. Digital technologies such as big data analytics, cloud computing, and IoT facilitate real-time knowledge generation, internal collaboration, and integration with global value chains (Shen et al., 2023; Hao et al., 2024). These capabilities, when absorbed and operationalized through a firm's innovation systems, result in enhanced products, services, and business models that are suitable for international markets (Chatterjee et al., 2022). In this way, digitalization strengthens innovation capability, which in turn fosters internationalization.

Furthermore, digital platforms provide SMEs with opportunities to experiment in foreign markets, gather customer feedback, and rapidly iterate on innovations. Such agility is central to international entrepreneurship, particularly for resource-constrained SMEs operating in uncertain global environments (Nambisan, 2018; Mendoza-Silva, 2021). Thus, innovation capability acts as the mechanism through which digitalization translates into effective international entrepreneurship strategies. Without a strong innovation base, the full potential of digital tools in supporting global expansion may not be realized. Drawing from this rationale, we posit that:

H4: Innovation capability mediates the relationship between digitalization and SMEs' international entrepreneurship strategy.\

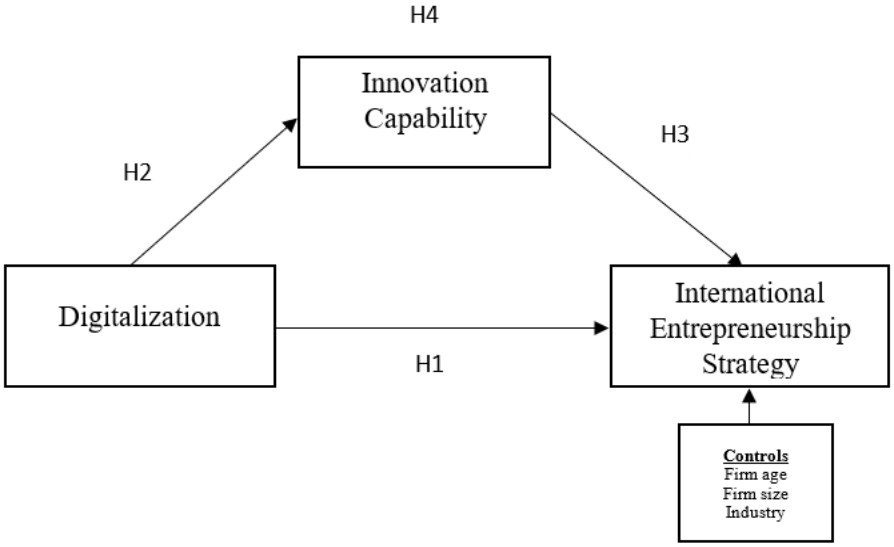


Figure 1: A framework showing digitalization impacting international entrepreneurship strategy via innovation capability

3. RESEARCH METHOD

3.1 Study Setting

The hypotheses were tested using a sample of SMEs in Ghana, a representative sub-Saharan African economy. Ghana was selected due to the limited research on digitalization and international entrepreneurship among SMEs in developing contexts, as most prior studies focus on large firms in advanced economies. Ghana's political stability, economic liberalization, and regional trade integration make it an appropriate setting. SMEs dominate the country's economy, accounting for over 90% of businesses, over 80% of manufacturing employment, and around 70% of GDP (Appiah-Kubi et al., 2024), offering a relevant context for examining the study's hypotheses through the lens of dynamic capabilities theory.

3.2 Sample and data collection

Data collection for this study was conducted in two phases, spaced approximately eight weeks apart, targeting small and medium-sized enterprises (SMEs) across Ghana. This two-phase approach was adopted to reduce the potential for common method bias and strengthen the internal validity of the findings, following methodological recommendations in prior empirical research (Adomako et al., 2017 & 2019; Podsakoff et al., 2003). SMEs were selected as the unit of analysis given their significant contribution to Ghana's economy. According to Appiah-Kubi et al. (2024), SMEs constitute over 90 percent of businesses, account for more than 80 percent of employment in the manufacturing sector and contribute approximately 70 percent of the country's GDP.

The sample size was determined using Krejcie and Morgan's (1970) formula, which is widely applied in survey research to estimate statistically adequate samples based on population size. With a population of approximately 405,000 registered SMEs, a 95 percent confidence level, and a 5 percent margin of error, the minimum required sample size was calculated to be 384. The formula used is as follows:

$$S = \frac{X^2\ N\ P(1-P)}{d^2(N-1) + X^2\ P(1-P)}$$

Where:

- S is the required sample size
- N=405,000 (population size)

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- P=0. (assumed population proportion)
- d=0.05 (margin of error)
- X^2=3.841 (chi-square value for 1 degree of freedom at 0.05 significance level)

Substituting the values yields a sample size of approximately 384. However, to ensure robustness and account for potential attrition between the two data collection phases, 384 questionnaires were initially administered. A final valid sample of 367 SMEs was retained, representing a response rate of 95.57 percent, which exceeds the minimum statistical requirement and aligns with previous SME studies in Ghana (e.g., Appiah-Kubi, 2024).

Stratified random sampling was employed to ensure proportionate representation across two dominant sectors (manufacturing and services). This approach reduced selection bias and allowed for sectoral comparisons in digitalization, innovation activity, and international entrepreneurship strategy. Within each firm, one key informant was selected based on their strategic knowledge and familiarity with the firm's operations, international involvement, and digital transformation initiatives.

In the first phase, data were collected on the independent variable (digitalization), the mediating variable (innovation capability), and demographic variables. The second phase, conducted after eight weeks, focused on capturing data on the dependent variable (international entrepreneurship strategy). Unique identification codes were used to match responses across the two phases and subsequently removed to maintain participant anonymity. After excluding unmatched or incomplete responses using listwise deletion, the final sample of 367 was deemed valid for analysis. This sampling and data collection procedure ensured methodological rigor, mitigated common method bias, and provided a robust basis for testing the study's hypotheses within the dynamic context of Ghanaian SMEs.

3.3 Measurement

The structured questionnaire included four sections and was administered in English. All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Digitalization was measured with six items adapted from Appiah-Kubi et al. (2025), capturing the use of digital tools and systems. Innovation capability was assessed with five items adapted from Najafi-Tavani et al. (2018), focusing on a firm's ability to create and apply new knowledge. International entrepreneurship strategy was measured with five items adapted from Buccieri et al. (2020), reflecting firms' efforts to identify and exploit international opportunities. Firm-specific demographic variables, including firm age, size and industry type, were controlled to enhance the robustness and generalizability of the findings (Afum et al., 2021).

38.1% of the respondents operated in the manufacturing sector, while 61.9% were in the service sector, suggesting a service-sector dominance in the sample. Regarding firm age, 6.5% of firms had operated for less than 5 years, 12.8% for 5–10 years, 21.8% for 11–15 years, 19.1% for 16–20 years, and 39.8% for over 20 years, indicating that a significant portion had long-term operational experience. In terms of firm size, 29.2% employed 1–20 people, 20.2% had 21–40 employees, 19.6% had 41–60, 12.8% employed 61–80, and 18.3% had 81–100 employees, confirming that the sample was largely composed of small-sized firms.

To assess non-response bias, early and late respondents were compared based on firm age, size, and sector using Pearson's chi-square test (Greenwood & Nikulin, 1996). No significant differences were found, suggesting non-response bias was not a concern (Armstrong & Overton, 1977; Rogelberg & Stanton, 2007).

3.3.1 Control Variables

Several control variables were included to account for potential confounding effects on the relationships within the research model. Firm age was measured as the number of years since the business was established. It was controlled because older firms may have accumulated more experience and resources, potentially influencing their innovation capacity and international engagement (Zahra et al., 2000). Firm size was measured by the number of full-time employees and log-transformed to correct for skewness. Larger firms are often better resourced and more likely to adopt digital technologies or pursue internationalization (Zahra et al., 2000). Industry type was controlled using a binary variable: 0 = manufacturing, 1 = service. Prior studies suggest that industry differences can affect internationalization strategies and the ease of product or service adaptation in foreign markets (Wang, 2008; Brouthers & Brouthers, 2003).

In line with previous research, these firm-level control variables were included to ensure that the estimated effects of digitalization and innovation capability on international entrepreneurship strategy were not biased by underlying organizational differences.

3.4 Factor Analysis

Exploratory Factor Analysis (EFA) was first conducted using SPSS (v.25) to examine whether the observed variables appropriately loaded onto their respective latent constructs: digitalization, innovation capability, and international entrepreneurship strategy. Initially, the constructs comprised six, five, and five items respectively. Items with factor loadings below 0.5 or those that cross-loaded were eliminated. After refinement, three items were retained for digitalization, and four items each for innovation capability and international entrepreneurship strategy. The EFA results showed a Total Variance Extracted (TVE) of 65.10%, exceeding the recommended minimum of 50%. The Kaiser-Meyer-Olkin (KMO) value was 0.882, indicating excellent sampling adequacy. Bartlett's Test of Sphericity was significant ($\chi^2 = 1538.345$, $p < 0.01$), confirming sufficient inter-item correlations. The determinant of the correlation matrix was 0.014, confirming positive definiteness of the dataset.

Confirmatory Factor Analysis (CFA) was then conducted using AMOS (v.23) to validate the measurement model and test model fit. The analysis followed established guidelines (Brown & Moore, 2012) and evaluated several key fit indices: Standardized Factor Loadings (SFL ≥ 0.5), Chi-Square to Degrees of Freedom (CMIN/DF < 3), Root Mean Square Residual (RMR < 0.08), Root Mean Square Error of Approximation (RMSEA < 0.08), Goodness of Fit Index (GFI > 0.90), Comparative Fit Index (CFI > 0.90), and Tucker-Lewis Index (TLI > 0.90).

All indices met the recommended thresholds, indicating that the model demonstrated excellent fit (see Table 1 and Figure 2). The CFA results confirmed that the retained items accurately and significantly explained their respective latent constructs, reinforcing the validity and robustness of the proposed measurement model.

In addition to model fit, the study assessed construct validity to ensure both internal consistency and theoretical soundness. Convergent validity was evaluated using Cronbach's Alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE). In line with Fornell

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and Larcker's (1981) guidelines (CA and CR > 0.70; AVE > 0.50), all constructs met the required thresholds, confirming strong convergent validity and reliability (see Table 3.3).

Table 1: Confirmatory Factor Analysis

	Model-fit Indices CMIN=67.983; DF=41; CMIN/DF=1.658; GFI=.968; PClOSE=.746; TLI=.976; CFI=.982; RMSEA=.042; RMR=.028	**Factor Loading**
DGT	***Digitalization: CA= 0.812; CR= 0.818; AVE= 0.599***	
DGT1	Our firm communicates with customers using digital technologies such as mobile apps, social media or cloud computing	.752
DGT2	Our entity communicates with suppliers using digital technologies	.809
DGT3	Our organization frequently organizes training sections for employees on the use of the available digital tools	.760
INC	***Innovation Capability: CA= 0.845; 0.845; AVE= 0.577***	
INC1	We are able to launch new products/services on time	.762
INC2	We are able to develop new products/services with speed	.737
INC3	Our firm introduces a number of changes in the business processes in the past one year	.764
INC4	Our new products/services/processes are unique and provide more value than competitors	.774
IES	***International Entrepreneurship Strategy: CA= 0.722; 0.821; AVE= 0.535***	
IES1	Our firm has introduced new product or service outside Ghana through direct investment	.776
IES2	Our organization competes with firms in other countries	.777
IES3	Our entity has entered the international market through acquisition of another firm	.702
IES4	Our firm takes risk to set-up in international countries	.665

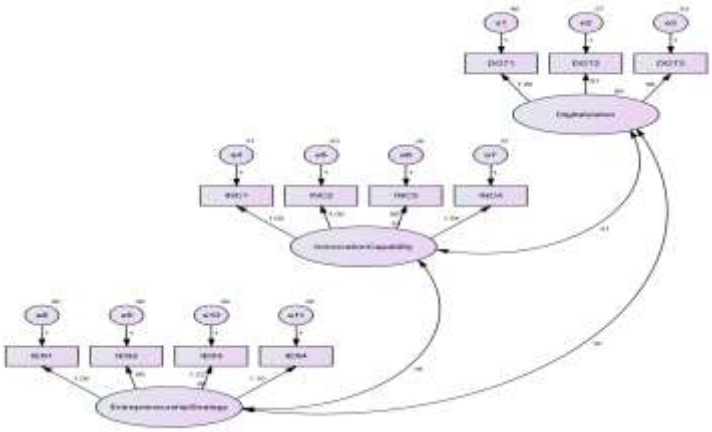


Figure 2: Confirmatory factor analysis diagram

3.5 Discriminant Validity and Multicollinearity Test

Discriminant validity was evaluated to confirm that each construct measured a unique concept within the model. Following Fornell and Larcker's (1981) method, the square root of the Average Variance Extracted (√AVE) for each construct was compared with its inter-construct correlations. The analysis showed that the lowest √AVE value (0.731) exceeded the highest correlation coefficient (0.611), thereby demonstrating clear distinction among the constructs (see Table 2). To further ensure the robustness of the measurement model, multicollinearity was assessed. The highest correlation observed (0.611) was below the recommended threshold of 0.70 (Tabachnick et al., 2007), indicating that multicollinearity was not a concern in this study.

Table 2: Discriminant Validity and Multicollinearity Test

	1	**2**	**3**	**4**	**5**	**6**
Age (1)	-					
Industry (2)	-.136**	-				
Size (3)	.427**	-.225**	-			
DGT (4)	-.026	.061	.127*	***.774***		
INC (5)	-.020	-.067	.074	.611**	***.760***	
IES (6)	.100	.038	.075	.433**	.402**	***.731***

****. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed)**

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4. RESULTS

The structural relationships among the study constructs were tested using covariance-based Structural Equation Modeling (CB-SEM) in AMOS (v.23). This method enabled the simultaneous estimation of direct and indirect effects while accounting for measurement errors. To ensure robust parameter estimation, the analysis employed 5000 bootstrap samples at a 95% confidence level using the Bias-Corrected (BC) percentile method. Results are summarized in Table 4.5 and illustrated in Figure 4.1.

Control variables were included to account for firm-specific characteristics. Firm age had a significant positive effect on international entrepreneurship strategy ($\beta = 0.050$; $p < 0.01$), whereas firm size ($\beta = -0.007$; $p > 0.05$) and industry ($\beta = 0.055$; $p > 0.05$) showed no statistically significant effects.

Digitalization exerted a significant positive influence on international entrepreneurship strategy ($\beta = 0.213$; $p < 0.01$), indicating that enhanced digital capabilities improve international strategic orientation. Innovation capability also showed a positive and significant effect ($\beta = 0.144$; $p < 0.05$).

Further analysis confirmed that digitalization strongly influenced innovation capability ($\beta = 0.680$; $p < 0.01$), which in turn significantly predicted international entrepreneurship strategy ($\beta = 0.144$; $p < 0.05$). Mediation testing revealed a significant indirect effect, with both lower (.082) and upper (.396) bounds of the BC confidence interval being positive. As the direct effect remained significant, this supports a partial mediation effect of innovation capability in the relationship between digitalization and international entrepreneurship strategy.

Table 3: Path Coefficients

Paths	**Unstandardized Estimate**	**Standard Error**	**Critical Ratio**
Digitalization→ International Entrepreneurship Strategy	.213	.062	3.424**
Digitalization→ Innovation Capability	.680	.064	10.682**
Innovation Capability → International Entrepreneurship Strategy	.144	.065	2.230*
Age → International Entrepreneurship Strategy	.050	.019	2.662*
Size→ International Entrepreneurship Strategy	-.007	.016	-.421
Industry→ International Entrepreneurship Strategy	.055	.049	1.133
Indirect Path	**Unstandardized Estimate**	**Lower Bias-Corrected**	**Upper Bias-Corrected**
Digitalization → Innovation Capability → International Entrepreneurship Strategy	.213	.082	.396

Bias-Corrected (BC) Percentile Method; 5000 Bootstrap sample; 95% Confidence level

** ~ P-value significant at 5% (0.05); ** ~ P-value significant at 1% (0.01)*

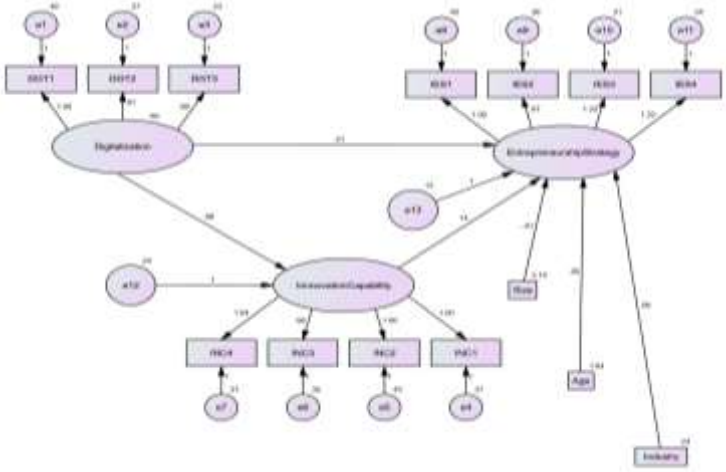


Figure 3: Path Diagram

5. DISCUSSION AND IMPLICATIONS

5.1 Discussion

This study provides critical insights into the interrelationship between digitalization, innovation capability, and international entrepreneurship strategies (IES) among SMEs operating in an emerging market context, specifically Ghana. It advances scholarly understanding by confirming that digitalization plays a significant role in shaping the international orientation of SMEs. This reinforces arguments within the international entrepreneurship and digital transformation literature that digitalization functions as a strategic enabler, facilitating entrepreneurial agility, expanding market access, and supporting the scalability of business models (Autio et al., 2021; Nambisan et al., 2019).

The positive and statistically significant impact of digitalization on IES ($\beta = 0.213$; $p < 0.01$) demonstrates that firms leveraging digital technologies are more likely to internationalize. This suggests that digital transformation is not merely operational, but rather, deeply strategic. It empowers SMEs to overcome historical challenges associated with international expansion, such as limited market knowledge and resource

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constraints, which are frequently highlighted in traditional theories of internationalization (Knight & Cavusgil, 2004; Johanson & Vahlne, 2009). For example, Ghanaian SMEs adopting e-commerce platforms and digital logistics solutions can penetrate international markets without extensive physical infrastructure, thereby mitigating the burden of entry costs and local presence. This observation aligns with the dynamic capabilities' perspective, which emphasizes that firms must continuously sense, seize, and transform resources to remain competitive in evolving global markets (Teece, 2007).

Further, the analysis confirmed that digitalization strongly influenced innovation capability ($\beta = 0.680$; $p < 0.01$), highlighting a foundational relationship between technological advancement and firms' ability to innovate. This substantial effect suggests that the adoption of digital tools and infrastructure directly enhances the knowledge absorption, ideation, and implementation processes that constitute innovation capability. In the context of Ghanaian SMEs, digitalization facilitates access to global knowledge networks, real-time market intelligence, and collaborative platforms that enable faster and more informed decision-making. These affordances not only streamline internal operations but also foster a culture of experimentation and continuous improvement. This finding aligns with prior research emphasizing that digital technologies serve as a catalyst for innovation by expanding organizational learning boundaries and accelerating the reconfiguration of products, services, and processes (Caputo et al., 2021; Li et al., 2022). It further reinforces the theoretical position that innovation capability is not developed in isolation but is often embedded within broader digital transformation trajectories.

The significant effect of innovation capability on IES ($\beta = 0.144$; $p < 0.05$) further underscores the central role of internal competencies in supporting international engagement. Innovation capability, in this context, reflects not only product or technological advancement but also the capacity for organizational learning, market responsiveness, and strategic adaptation. Firms that develop these competencies are better positioned to respond to the complexities of foreign markets by reconfiguring their offerings and value propositions. This finding is consistent with prior research suggesting that innovation is not just an outcome of internationalization but also a precursor to it, facilitating greater opportunity recognition, experimentation, and market learning (Zahra & George, 2002; Oura et al., 2016).

The partial mediation of innovation capability in the relationship between digitalization and IES reveals an important insight. While digital technologies provide the tools and infrastructure for engaging with global markets, their effectiveness depends on the firm's ability to absorb, contextualize, and utilize these tools innovatively. This finding draws on the absorptive capacity lens (Cohen & Levinthal, 1990), which asserts that the ability to exploit external knowledge is largely a function of prior related knowledge, organizational routines, and learning capabilities. It also resonates with the principles of Adaptive Structuration Theory (DeSanctis & Poole, 1994; Roy et al., 2025), which highlights that technologies yield outcomes through recursive interaction with social structures and interpretive practices (Orlikowski, 2000). In this view, technology adoption alone does not yield international advantage unless it is complemented by firm-level innovation systems and strategic intent.

The influence of control variables adds further nuance. The significant positive relationship between firm age and IES ($\beta = 0.050$; $p < 0.01$) suggests that accumulated experience and managerial maturity can facilitate international strategy formulation. However, the non-significant results for firm size and industry imply that digitalization and innovation capabilities are impactful regardless of a firm's scale or sector. This suggests a levelling effect, where digital technologies provide smaller or resource-constrained firms with the tools to compete globally, provided they possess or develop the requisite capabilities.

Overall, the findings support a capability-based model of international entrepreneurship. Rather than viewing internationalization as a function of external market opportunities alone, this study emphasizes the strategic importance of internal capabilities that enable SMEs to leverage digital tools, adapt business models, and create differentiated value in international markets. This perspective contributes to a growing body of research that positions digitalization and innovation as mutually reinforcing drivers of entrepreneurial competitiveness in the global economy.

5.2 Theoretical Contribution

This study makes significant theoretical advancements by deepening the application of the Dynamic Capabilities (DC) perspective, particularly within the under-researched context of SMEs operating in emerging markets. Although the study is anchored in the foundational assumptions of the Resource-Based View (RBV), it overcomes the limitations of RBV's static nature by operationalizing dynamic capabilities as the central mechanism through which digital resources are mobilized for strategic international engagement.

Firstly, the study enriches Dynamic Capabilities Theory by demonstrating how SMEs develop and deploy digital capabilities to pursue international opportunities. Rather than treating digital technologies as inherently valuable, the findings show that their strategic value emerges when firms possess the capacity to sense international market shifts, seize opportunities through digital platforms, and reconfigure internal processes to adapt to foreign market demands. For example, some SMEs in Ghana leveraged social media analytics to identify diasporic demand trends, allowing them to modify product offerings and enter new markets with minimal investment. This illustrates how dynamic capabilities provide the agility needed for SMEs to convert digital tools into actionable international strategies.

Secondly, the study advances theory by introducing innovation capability as a mediating construct that explains the pathway from digitalization to IES. This addresses an existing gap in the literature, where digitalization is often conceptualized as an exogenous force rather than a process embedded in internal capability development. The findings provide empirical evidence that SMEs must not only adopt digital tools but also build organizational learning routines, creative problem-solving practices, and collaborative innovation systems to achieve international expansion. This aligns with and extends the principles of Absorptive Capacity Theory, particularly in contexts where external knowledge needs to be internalized and transformed into firm-specific innovations before yielding strategic benefits.

Thirdly, the study contributes to the contextual refinement of international entrepreneurship and dynamic capabilities literature by situating the analysis in a Sub-Saharan African context. It responds to growing academic calls to decenter Western-centric assumptions in theory-building by demonstrating how SMEs in Ghana navigate institutional voids, infrastructural constraints, and financing limitations. For instance, firms often compensate for unreliable logistics infrastructure by forming digital partnerships with fintech firms or using decentralized mobile payment systems to facilitate international transactions. These adaptive behaviors are illustrative of dynamic capabilities emerging in response to systemic deficiencies rather than solely from market-driven pressures. This context-specific lens enhances theoretical generalizability by showing that the formation and application of dynamic capabilities are not uniform across geographies but are shaped by local constraints and institutional realities.

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Finally, the study offers an integrative model that connects digitalization, innovation capability, and IES into a coherent explanatory framework. This synthesis bridges fragmented theoretical streams and provides a foundation for future studies examining how digital resources is internalized and restructured into innovation-led internationalization pathways. It invites further exploration into how such trajectories evolve over time and across industries, especially in contexts characterized by volatility, uncertainty, and digital leapfrogging.

The study not only affirms the relevance of dynamic capabilities in contemporary international entrepreneurship but also contributes to theory by refining its conceptual boundaries, extending it to new contexts, and enriching it through empirical validation of innovation-driven digital strategies.

5.3 Managerial implications

The findings offer several actionable insights for SME managers pursuing internationalization amid resource constraints and institutional uncertainty. First, digitalization should not be viewed merely as a tool for operational efficiency but as a strategic enabler of international growth. SME managers are encouraged to integrate digital platforms such as e-commerce, customer relationship management systems, and data-driven marketing tools into their core business models. These technologies support direct engagement with international customers, facilitate real-time communication across borders, and help firms efficiently coordinate supply chains, enabling SMEs to bypass conventional entry barriers associated with scale and geography.

Second, the demonstrated complementarity between digitalization and innovation capability highlights the need for managers to cultivate organizational conditions that stimulate creative problem-solving and adaptive learning. It is not enough to possess digital tools; firms must build the internal processes necessary to leverage them innovatively. This includes establishing cross-functional innovation teams, embedding digital skills training into employee development programs, and encouraging experimentation with new business models. Such an approach enhances the firm's capacity to sense and respond to international opportunities in a timely and agile manner.

Third, SME managers should embrace an incremental approach to internationalization that emphasizes experiential learning. Instead of pursuing large-scale expansion prematurely, firms can begin by testing products or services in smaller international markets through digital channels. This iterative strategy allows firms to refine their offerings based on customer feedback, understand institutional differences, and gradually accumulate international market knowledge. Feedback mechanisms embedded in digital platforms, such as online reviews and analytics dashboards, serve as valuable inputs for continuous improvement.

Finally, the findings suggest that firm age and entrepreneurial experience positively influence international entrepreneurship strategies. While older firms may benefit from accumulated knowledge and stable routines, younger or less-experienced ventures can compensate through targeted capacity-building efforts. These may include participating in international trade missions, joining business incubators, and forming strategic alliances with experienced international partners. Such initiatives provide access to critical networks, institutional know-how, and best practices that can accelerate international readiness.

Overall, managers are advised to adopt a capability-driven perspective on internationalization, recognizing that the strategic alignment of digital technologies and innovation practices is central to sustaining competitive advantage in global markets.

5.4 Policy implications

The results carry significant implications for policymakers, particularly those in emerging economies aiming to enhance SME competitiveness and international engagement. First, the study underscores the importance of designing and supporting digital infrastructure policies that lower the cost and complexity of digital adoption for SMEs. Public-private partnerships that extend broadband access, reduce tech taxes, or subsidize cloud services can remove key barriers to digital internationalization.

Second, policy frameworks should support capability development programs that go beyond ICT provision and focus on innovation capacity-building. Initiatives such as innovation vouchers, R&D incentives, digital entrepreneurship bootcamps, and support for design thinking in SMEs are critical to helping firms leverage technology meaningfully.

Third, trade and export promotion agencies such as the Ghana Export Promotion Authority (GEPA) should be encouraged to incorporate digital readiness assessments and innovation audits as part of their internationalization support. This will allow tailored interventions that target not just financial support, but the strategic and operational capacity of firms to sustain global engagement.

Finally, the research suggests that fostering international exposure among entrepreneurs through study-abroad programs, exchange initiatives, or diaspora engagement policies could indirectly enhance digital and innovation capabilities, leading to stronger international entrepreneurship outcomes.

6. CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study offers critical insights into how digitalization enhances innovation capability and, in turn, drives international entrepreneurship strategies among SMEs in Ghana. The findings demonstrate that digitalization is not merely a technical upgrade but a strategic enabler that cultivates dynamic innovation capacity and global competitiveness among resource-constrained firms. By establishing digitalization as a key antecedent of innovation capability and internationalization, the study contributes to the capability-based understanding of SME competitiveness in emerging markets.

Despite its contributions, the study has some limitations that open avenues for future research. First, although the study drew on the Dynamic Capabilities Theory to explain firm-level innovation and internationalization, these internally focused perspectives may not fully capture the influence of external institutional environments. Future research could enrich the theoretical framework by incorporating Institutional Theory, which would allow scholars to account for regulatory conditions, normative expectations, and industry standards that shape SMEs' digital behavior and innovation outcomes. Such integration would offer a more context-sensitive and multidimensional understanding of digital transformation across varying institutional settings.

Second, the study focused solely on Ghanaian SMEs without sectoral differentiation, limiting the generalizability of findings across industries with distinct technological maturity, innovation potential, and global exposure. For example, SMEs in agribusiness may face infrastructural barriers unlike those in manufacturing or creative industries. Future research should conduct sector-specific investigations to explore

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how industry context moderates the digitalization–innovation–internationalization relationship and to develop more tailored strategies for policy and practice.

Third, the study did not explore the role of leadership heterogeneity, particularly in terms of gender and generational diversity, which is increasingly relevant in SME ecosystems. As SMEs are progressively led by younger entrepreneurs and women, future studies should examine how diverse leadership profiles shape digital adoption, innovation culture, and global engagement. This line of inquiry could enhance our understanding of how inclusive leadership contributes to sustained innovation and international growth, especially in emerging market contexts.

Addressing these limitations will deepen theoretical and practical knowledge on how SMEs can build robust, inclusive, and context-aware innovation systems that sustain international entrepreneurship. Future research should also consider adopting longitudinal and mixed method designs to capture the dynamic evolution of digital capabilities and the complex processes underpinning innovation and internationalization in SMEs.

REFERENCES

1) Aboelmaged, M. G. (2014). Predicting e-readiness at firm-level: An analysis of technological, organisational and environmental (TOE) effects on e-maintenance readiness in manufacturing firms. *International Journal of Information Management*, *34*(5), 639-651.
2) Adomako, S., Amankwah-Amoah, J., Dankwah, G. O., Danso, A., & Donbesuur, F. (2019). Institutional voids, international learning effort and internationalization of emerging market new ventures. *Journal of International Management*, *25*(4), 100666.
3) Adomako, S., Danso, A., Boso, N., & Narteh, B. (2018). Entrepreneurial alertness and new venture performance: Facilitating roles of networking capability. *International Small Business Journal*, *36*(5), 453-472.
4) Adomako, S., Opoku, R. A., & Frimpong, K. (2017). The moderating influence of competitive intensity on the relationship between CEOs' regulatory foci and SME internationalization. *Journal of International Management*, *23*(3), 268-278.
5) Afum, E., Gao, Y., Agyabeng-Mensah, Y., & Sun, Z. (2021). Nexus between lean operations, eco-product innovativeness, social, green and business performances: an empirical evidence from Ghanaian manufacturing SMEs. *Journal of Manufacturing Technology Management*, *32*(8), 1557-1577.
6) Al-Khatib, A. W., & Al-ghanem, E. M. (2022). Radical innovation, incremental innovation, and competitive advantage, the moderating role of technological intensity: evidence from the manufacturing sector in Jordan. *European business review*, *34*(3), 344-369.
7) Amankwah-Amoah, J., Adomako, S., Danquah, J. K., Opoku, R. A., & Zahoor, N. (2022). Foreign market knowledge, entry mode choice and SME international performance in an emerging market. *Journal of International Management*, *28*(4), 100955.
8) Amankwah-Amoah, J., Khan, Z., Wood, G., & Knight, G. (2021). COVID-19 and digitalization: The great acceleration. *Journal of business research*, *136*, 602-611.
9) Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management?. *International journal of management reviews*, *11*(1), 29-49.
10) Appiah-Kubi, E. (2024). Management knowledge and sustainability reporting in SMEs: The role of perceived benefit and stakeholder pressure. *Journal of Cleaner Production*, *434*, 140067.
11) Appiah-Kubi, E., Dura, C. C., Niță, D., Drigă, I., Preda, A., & Baltador, L. A. (2025). The effect of digitalization on sustainability reporting: The role of sustainability competence, green knowledge integration, and stakeholder pressure. *Business Strategy and the Environment*, *34*(1), 1133-1153.
12) Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of marketing research*, *14*(3), 396-402.
13) Autio, E., Mudambi, R., & Yoo, Y. (2021). Digitalization and globalization in a turbulent world: Centrifugal and centripetal forces. *Global Strategy Journal*, *11*(1), 3-16.
14) Bargoni, A., Ferraris, A., Vilamová, Š., & Wan Hussain, W. M. H. (2024). Digitalisation and internationalisation in SMEs: a systematic review and research agenda. *Journal of Enterprise Information Management*, *37*(5), 1418-1457.
15) Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, *17*(1), 99-120.
16) Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. V. (2013). Digital business strategy: toward a next generation of insights. *MIS quarterly*, 471-482.
17) Boso, N., Debrah, Y., & Amankwah-Amoah, J. (2018). (How) does Africa matter for international business scholarship?. *AIB Insights*, *18*(4), 6-9.
18) Bresciani, S., Huarng, K. H., Malhotra, A., & Ferraris, A. (2021). Digital transformation as a springboard for product, process and business model innovation. *Journal of Business Research*, *128*, 204-210.
19) Brouthers, K. D., Brouthers, L. E., & Werner, S. (2003). Transaction cost-enhanced entry mode choices and firm performance. *Strategic management journal*, *24*(12), 1239-1248.
20) Brown, T. A., & Moore, M. T. (2012). Confirmatory factor analysis. *Handbook of structural equation modeling*, *361*, 379.
21) Buccieri, D., Javalgi, R. G., & Cavusgil, E. (2020). International new venture performance: Role of international entrepreneurial culture, ambidextrous innovation, and dynamic marketing capabilities. *International Business Review*, *29*(2), 101639.
22) Capurro, R., Fiorentino, R., Garzella, S., & Giudici, A. (2022). Big data analytics in innovation processes: which forms of dynamic capabilities should be developed and how to embrace digitization?. *European Journal of Innovation Management*, *25*(6), 273-294.
23) Caputo, A., Pizzi, S., Pellegrini, M. M., & Dabić, M. (2021). Digitalization and business models: Where are we going? A science map of the field. *Journal of business research*, *123*, 489-501.
24) Cenamor, J., Parida, V., & Wincent, J. (2019). How entrepreneurial SMEs compete through digital platforms: The roles of digital platform capability, network capability and ambidexterity. *Journal of business research*, *100*, 196-206.

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25) Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2022). Knowledge sharing in international markets for product and process innovation: moderating role of firm's absorptive capacity. *International Marketing Review*, *39*(3), 706-733.
26) Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative science quarterly*, *35*(1), 128-152.
27) Cuthbertson, R. W., & Furseth, P. I. (2022). Digital services and competitive advantage: Strengthening the links between RBV, KBV, and innovation. *Journal of Business Research*, *152*, 168-176.
28) Del Giudice, M., Di Vaio, A., Hassan, R., & Palladino, R. (2022). Digitalization and new technologies for sustainable business models at the ship–port interface: A bibliometric analysis. *Maritime Policy & Management*, *49*(3), 410-446.
29) DeSanctis, G., & Poole, M. S. (1994). Capturing the complexity in advanced technology use: Adaptive structuration theory. *Organization science*, *5*(2), 121-147.
30) Eisenhardt, K., & Martin, J. A. (2000). Dynamic capabilities: What are they. *Strategic management journal*, *21*(10/11), 1105-1121.
31) Ferreira, J. J., Fernandes, C. I., & Ferreira, F. A. (2019). To be or not to be digital, that is the question: Firm innovation and performance. *Journal of Business research*, *101*, 583-590.
32) Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, *18*(1), 39-50.
33) Gong, Y., Yao, Y., & Zan, A. (2023). The too-much-of-a-good-thing effect of digitalization capability on radical innovation: the role of knowledge accumulation and knowledge integration capability. *Journal of Knowledge Management*, *27*(6), 1680-1701.
34) Greenwood, P. E., & Nikulin, M. S. (1996). *A guide to chi-squared testing*. John Wiley & Sons.
35) Han, H., & Trimi, S. (2022). Towards a data science platform for improving SME collaboration through Industry 4.0 technologies. *Technological Forecasting and Social Change*, *174*, 121242.
36) Hao, X., Wen, S., Zhu, J., Wu, H., & Hao, Y. (2024). Can business managerial capacity improve green innovation in different industries? Evidence from Chinese listed companies. *Business Strategy and the Environment*, *33*(3), 2600-2620.
37) Helfat, C. E., & Winter, S. G. (2011). Untangling dynamic and operational capabilities: Strategy for the (N) ever-changing world. *Strategic management journal*, *32*(11), 1243-1250.
38) Javaid, M., Haleem, A., Singh, R. P., & Suman, R. (2022). Artificial intelligence applications for industry 4.0: A literature-based study. *Journal of Industrial Integration and Management*, *7*(01), 83-111.
39) Jean, R. J. B., Kim, D., Lien, Y. C., & Ro, S. (2020). The moderating effect of virtual integration on intergenerational governance and relationship performance in international customer–supplier relationships. *International Marketing Review*, *37*(3), 579-592.
40) Johanson, J., & Vahlne, J. E. (2015). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. In *International business strategy* (pp. 33-59). Routledge.
41) Kallmuenzer, A., Mikhaylov, A., Chelaru, M., & Czakon, W. (2025). Adoption and performance outcome of digitalization in small and medium-sized enterprises. *Review of Managerial Science*, *19*(7), 2011-2038.
42) Knight, G. A., & Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of international business studies*, *35*(2), 124-141.
43) Knight, G. A., & Liesch, P. W. (2016). Internationalization: From incremental to born global. *Journal of world business*, *51*(1), 93-102.
44) Kraus, S., Schiavone, F., Pluzhnikova, A., & Invernizzi, A. C. (2021). Digital transformation in healthcare: Analyzing the current state-of-research. *Journal of Business Research*, *123*, 557-567.
45) Lam, L., Nguyen, P., Le, N., & Tran, K. (2021). The relation among organizational culture, knowledge management, and innovation capability: Its implication for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), 66.
46) Lanivich, S. E., Adomako, S., Zahoor, N., Tarba, S. Y., & Stockdall, K. (2025). Bricolage and new-venture performance: conditions of digitalization, causation, and effectuation. *Journal of Small Business Management*, 1-39.
47) Leão, P., & da Silva, M. M. (2021). Impacts of digital transformation on firms' competitive advantages: A systematic literature review. *Strategic Change*, *30*(5), 421-441.
48) Li, L., Su, F., Zhang, W., & Mao, J. Y. (2018). Digital transformation by SME entrepreneurs: A capability perspective. *Information Systems Journal*, *28*(6), 1129-1157.
49) Li, L., Ye, F., Zhan, Y., Kumar, A., Schiavone, F., & Li, Y. (2022). Unraveling the performance puzzle of digitalization: Evidence from manufacturing firms. *Journal of Business Research*, *149*, 54-64.
50) Loebbecke, C., & Picot, A. (2015). Reflections on societal and business model transformation arising from digitization and big data analytics: A research agenda. *The journal of strategic information systems*, *24*(3), 149-157.
51) Matarazzo, M., Penco, L., Profumo, G., & Quaglia, R. (2021). Digital transformation and customer value creation in Made in Italy SMEs: A dynamic capabilities perspective. *Journal of Business research*, *123*, 642-656.
52) Mendoza-Silva, Andrea. "Innovation capability: A sociometric approach." *Social Networks* 64 (2021): 72-82.
53) Migdadi, M. M. (2022). Social capital impact on mass customization capability and innovation capabilities: the mediating role of absorptive capacity. *Journal of Business & Industrial Marketing*, *37*(12), 2488-2500.
54) Morgan, K. (1970). Sample size determination using Krejcie and Morgan table. *Kenya Projects Organization (KENPRO)*, *38*(1970), 607-610.
55) Najafi-Tavani, S., Najafi-Tavani, Z., Naudé, P., Oghazi, P., & Zeynaloo, E. (2018). How collaborative innovation networks affect new product performance: Product innovation capability, process innovation capability, and absorptive capacity. *Industrial marketing management*, *73*, 193-205.
56) Nambisan, S., Siegel, D., & Kenney, M. (2018). On open innovation, platforms, and entrepreneurship. *Strategic entrepreneurship journal*, *12*(3), 354-368.

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57) Nambisan, S., Wright, M., & Feldman, M. (2019). The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. *Research policy*, *48*(8), 103773.
58) Orlikowski, W. J. (2000). Using technology and constituting structures: A practice lens for studying technology in organizations. *Organization science*, *11*(4), 404-428.
59) Oura, M. M., Zilber, S. N., & Lopes, E. L. (2016). Innovation capacity, international experience and export performance of SMEs in Brazil. *International Business Review*, *25*(4), 921-932.
60) Pagani, M., & Pardo, C. (2017). The impact of digital technology on relationships in a business network. *Industrial Marketing Management*, *67*, 185-192.
61) Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, *88*(5), 879.
62) Pundziene, A., & Geryba, L. (2023). Managing technological innovation: Dynamic capabilities, collaborative innovation, and born-digital SMEs' performance. *IEEE Transactions on Engineering Management*, *71*, 6968-6981.
63) Rogelberg, S. G., & Stanton, J. M. (2007). Introduction: Understanding and dealing with organizational survey nonresponse. *Organizational research methods*, *10*(2), 195-209.
64) Roy, S. K., Dey, B. L., Brown, D. M., Abid, A., Apostolidis, C., Christofi, M., & Tarba, S. (2025). Business model innovation through AI adaptation: the role of strategic human resources management. *British Journal of Management*, *36*(2), 546-559.
65) Sassi, M., Qafoku, O., Bowden, M. E., Pearce, C. I., Latta, D., Miller, Q. R., ... & Rosso, K. M. (2024). Influence of time and ageing conditions on the properties of ferrihydrite. *Environmental Science: Nano*, *11*(4), 1682-1692.
66) Scuotto, V., Lemaire, S. L. L., Magni, D., & Maalaoui, A. (2022). Extending knowledge-based view: Future trends of corporate social entrepreneurship to fight the gig economy challenges. *Journal of Business Research*, *139*, 1111-1122.
67) Shen, S., Venaik, S., & Zhu, Y. (2023). A dynamic model of internationalization and innovation in emerging market enterprises: knowledge exploration, transformation, and exploitation. *Management International Review*, *63*(4), 561-601.
68) Song, Y. (2023). How do Chinese SMEs enhance technological innovation capability? From the perspective of innovation ecosystem. *European Journal of Innovation Management*, *26*(5), 1235-1254.
69) Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic management journal*, *28*(13), 1319-1350.
70) Teece, D. J. (2014). The foundations of enterprise performance: Dynamic and ordinary capabilities in an (economic) theory of firms. *Academy of management perspectives*, *28*(4), 328-352.
71) Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, *18*(7), 509-533.
72) Teece, D. J. (2023). Big tech and strategic management: How management scholars can inform competition policy. *Academy of Management Perspectives*, *37*(1), 1-15.
73) Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California management review*, *58*(4), 13-35.
74) Vial, G. (2019). Reflections on quality requirements for digital trace data in IS research. *Decision Support Systems*, *126*, 113133.
75) Wang, C. L. (2008). Entrepreneurial orientation, learning orientation, and firm performance. *Entrepreneurship theory and practice*, *32*(4), 635-657.
76) Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International journal of management reviews*, *9*(1), 31-51.
77) Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic management journal*, *5*(2), 171-180.
78) Zahra, S. A. (2021). International entrepreneurship in the post Covid world. *Journal of World Business*, *56*(1), 101143.
79) Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of management review*, *27*(2), 185-203.
80) Zahra, S. A., Ireland, R. D., & Hitt, M. A. (2000). International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. *Academy of Management journal*, *43*(5), 925-950.
81) Zheng, Y., & Zhang, Q. (2023). Digital transformation, corporate social responsibility and green technology innovation-based on empirical evidence of listed companies in China. *Journal of Cleaner Production*, *424*, 138805.
82) Zhou, L., Wu, W. P., & Luo, X. (2007). Internationalization and the performance of born-global SMEs: the mediating role of social networks. *Journal of international business studies*, *38*(4), 673-690.

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