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Digital Transformation Strategies for Small and Medium Enterprises in Emerging Economies

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Abstract

Small and medium enterprises form the heart of emerging economies, forming the bulk of economic activities and employment within such economies but the integration of advanced technologies among such enterprises is inconsistent. This research paper outlines a framework that describes the different reasons behind the inconsistency in digital transformation within emerging economy small and medium enterprises and how the transformation process leads to the conversion of resource constraints to sustained competitive advantage. The framework draws from three major ideas from the current literature. First, adoption of technologies within developing country small and medium enterprises has been limited to basic information technologies whereas cloud computing and artificial intelligence have not been adopted to any significant level. Secondly, constraints to transformation in terms of inadequate financing, poor digital skills, inadequate manpower and other technical limitations are more institutional and organisational in nature as opposed to being technological and depend on the environmental conditions including the activities of government, private and community-based institutions. Thirdly, there is evidence that digital strategy and digital skills act as the mediator in transformation and its impact on sustained competitive advantage in emerging markets firms. The framework arranges these insights into six strategies that interact: adoption sequencing consistent with ecosystems, development of digital capability with a focus on learning and integration, digital strategy formation as a separate managerial activity, digital culture building, transformation based on resources in organisational, human, financial, technological and social realms, and policy engagement. A multiple-method validation approach is proposed, along with measurable indicators for each of the strategies. The paper shifts the focus of digital transformation from an issue of technology procurement to one of capability building and strategy formation, and explains when and how resource-starved companies can leapfrog.

Keywords: Digital Transformation, SMEs, Emerging Economies, Digital Capabilities, Dynamic Capabilities, Leapfrogging, Sustainable Competitive Performance, Entrepreneurship Policy.

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Introduction

It is important to understand that small and medium enterprises are not just a marginal part of business in developing economies; they are at its core. Ninety percent of businesses and 50 percent of the workforce in the world come from SMEs and a significant proportion of that workforce consists of women (Melo et al., 2023). It is, therefore, very crucial for SMEs to contribute towards employment creation and sustainable development (Yesuf & Fields, 2026). That is why, the issue of digitization of SMEs is a developmental issue and not just an operational one since the benefits of digitization will be enjoyed not only by the owners but also by their labor markets.

The evidence that shows whether SMEs have been making such gains is, however, contradictory in a distinctively diagnostic manner. First, reviews of technology adoption by SMEs in developing nations show that there is considerable attention paid to information systems as the key technologies adopted, compared to more advanced technologies like cloud computing and AI Díaz-Arancibia et al., (2024). In this case, adoption does take place, but only in a very limited fashion, relative to the technological frontier. Further, technology adoption within the context of the Fourth Industrial Revolution in emerging markets remains sporadic, despite the number of publications on the digital transformation of SMEs increasing significantly, and even in such a body of literature, concepts tend to be fragmented, covering challenges, facilitators, and outcomes separately (Yesuf & Fields, 2026).

It is this fragmentation that poses the problem which the current paper will address. It is important to note that the barriers experienced by SMEs are interlinked to some degree. Qualitative investigation of top management in small service enterprises reveals four key barriers to digitalization, namely, lack of funding, lack of digital skills, lack of personnel, and technological barriers (Chen et al., 2021). It is evident that all four barriers are interrelated and thus any attempt at solving them on a single-barrier level would be futile. If a company has subsidized hardware but no personnel that could handle it, the problem has not been solved. Similarly, training the personnel without the financial means to purchase the software that was to be handled is not enough. The same logic applies to the infrastructure case, when mobile communication infrastructure alone is not the answer, as in many regions in sub-Saharan Africa internet costs are too high for SMEs, especially the informal ones, not to mention legislation that hampers equal access (Achieng & Malatji, 2022).

Another closely related problem is that the linkages between digital investment and performance are often misunderstood. A considerable amount of research on the link between digitalization and firm performance has taken place; however, the vast majority of the literature has focused on larger firms and on IT capabilities in advanced economies, thus ignoring the issue of how digitalization facilitates sustained competitive performance in emerging market SMEs (Al-Omush et al., 2023). Even where the latter has been investigated, the conclusion drawn has not been that technology contributes to performance. In a study of 376 manufacturing SMEs, the digital strategy was shown to positively impact sustainable competitive performance, partly through digital capability and partly through digital culture, which moderates the link between the former two constructs (Al-Omush et al., 2023). The intervening factors here are managerial and organizational in nature. When a firm invests in technology without having digital strategy and digital capability in place, it acquires an asset rather than a revolution.

Another issue is the capacity to implement whatever strategy has been designed. In Ghana, amongst 400 SME managers and supervisors, sensing, seizing, and transforming dynamic capabilities have been separately observed to positively influence SME performance, and digitalisation has significantly enhanced the effect of all three of these capabilities on performance (Martins, 2023). Yet it needs to be highlighted that while digitalisation has significantly moderated the effect of sensing, seizing, and transforming dynamic capabilities on SME performance Martins, (2023), it could significantly moderate the effect only in the case of transforming capability (Martins, 2023). This clearly shows where digitalisation works the best – not in sensing and seizing opportunity, but in reconfiguring internal resources and processes.

The resource constraint characteristic of emerging market SMEs creates an opportunity recognized only recently by the literature. In analyzing 81 peer-reviewed journal papers published between 2010 and 2024, the researchers realized that leapfrogging emerges as a critical facilitation mechanism through which the SMEs characterized by resource constraints turn challenges into opportunities for quick innovations, and formulated a Frugal Leapfrogging Model integrating the Barrier–Enabler–Outcome Framework with the resource-based view, dynamic capabilities framework, and institutional theory (Yesuf & Fields, 2026). In other words, leapfrogging offers a solution to the problem: since these firms lack any legacy structures or commitments, they can embrace new architectures, subject to meeting the prerequisites of leapfrogging.

This paper will react to the findings with a strategic approach to digital transformation among SMEs in emerging economies by considering all of the findings together as one system. This paper's contributions are threefold. First, it

will explain why digital transformation differs from firm to firm within the same category, finding the answer to be digital strategy and digital capability, not technology choice. Second, it will consolidate all the barriers and enablers found into six strategic approaches that have measurement indicators. Third, it will build on the resource-based logic of transformation, which states that digital technologies are important because they transform fixed resources into dynamic capabilities in several areas (Alajmi, 2026).

The rest of the paper will go through an overview of the literature, outline the theoretical background and strategic framework, explain the validation process, and provide manager and policy implications.

Literature Review

Adoption Patterns and Technological Depth

The first constant that one can observe from the literature on the subject is that adoption by emerging economy SMEs exists but is shallow. An analysis of the systematic literature on digital transformation and technology adoption among SMEs in developing countries reveals an interesting aspect where adoption is largely limited to basic information systems and other sophisticated technologies such as cloud computing and artificial intelligence do not seem to be prevalent (Díaz-Arancibia et al., 2024). The importance of this observation for the formulation of strategy is that benefits from transformation are not evenly spread among all technologies. Basic information systems replace paperwork, but the cloud, analytics, and intelligent systems change how the organization detects demand, coordinates its suppliers, and personalizes its offer.

The review also explains what determines adoption trends. Factors such as the entrepreneurial environment and external social factors like government and private sector interventions, among others, have a fundamental influence on adoption (Díaz-Arancibia et al., 2024). What is particularly noteworthy about the same study is the emphasis placed on the important part played by community-based interventions in promoting technology adoption compared to interventions by the public and private sector organizations (Díaz-Arancibia et al., 2024). This ordering needs to be highlighted since it challenges the conventional approach based on the notion that change will come through the policy route or through vendor supply chain. It turns out that community-based interventions, such as peer learning, business associations, and shared services, are more successful in converting technologies to use than externally designed programs (Díaz-Arancibia et al., 2024).

Barriers and Enablers

Barriers are fairly well defined in the literature, and the classification scheme is context free. Four primary barriers to digital transformation of small service businesses have been found: a lack of finance, a lack of digital competency, a lack of personnel, and technical barriers (Chen et al., 2021). While based in small service businesses, the categorization scheme is relevant due to the fact that the constraining mechanism is resource shortage rather than the industry itself.

Each barrier is further explained in another place. Regarding the problem of funding, access to finance remains an important determinant of whether SMEs can start their digital transformation process (Raji et al., 2024). Furthermore, the problem of financial constraints affects the psychological aspect of the investment: where investment required is high, and the return is not immediate, SMEs may refuse to invest even if it is a profitable choice from the technological standpoint (Rodríguez-Espíndola et al., 2022). Regarding infrastructure, from the experiences gathered from sub-Saharan Africa, mobile telecommunication infrastructures alone cannot solve the issue since the costs involved in accessing the internet remain prohibitively high for the SMEs, especially within the informal sector, while regulation that prevents equal access to the internet forms another hindrance — the establishment of laws for taxing social media platforms in some countries leading to higher access costs for the internet (Achieng & Malatji, 2022). Regarding the regulatory environment, the situation is also comparative, since an entrepreneur-friendly regulatory environment in America has made it possible for SMEs to easily adopt digital technology owing to the presence of good regulations promoting innovation, competition, and entrepreneurship in the SMEs, while in Africa the case is a bit different as there is a variety of regulatory systems in place, varying in terms of their sophistication and enforcement with the regulation of the border also being an issue (Raji et al., 2024).

While the enabling literature is not as advanced as the barrier literature, it is consistent. The concept of leapfrogging is the most explicit in that resource-constrained enterprises leverage barriers to create opportunities for quick innovations, and the Frugal Leapfrogging Model offers a structure that can inform entrepreneurship policy and SME development (Yesuf & Fields, 2026). There is some external help in the list of enabling factors: firms in developing countries require assistance with obtaining resources, since the process is quite costly and this prevents SMEs from competing effectively and benefiting from efficiency through technology (Boom-Cárcamo et al., 2024).

Digital Strategy, Digital Capability, and Performance

The most significant theoretical line in all of these studies is related to the ways digitalisation impacts firm performance, which is also the aspect of this literature which has attracted the least amount of scholarly attention in terms of emerging markets SMEs, where the focus is mostly on large companies and the IT capability of companies in developed countries (Al-Omush et al., 2023).

Where the research has taken into account this aspect, the concept of mediation has proven to be the case. Research based on surveys conducted with 376 manufacturing SMEs has shown that digital strategy has a positive effect on sustainable competitive performance, and the above-mentioned relationship is partially mediated by digital capability. Moreover, it has been proven that digital culture is a moderating variable, which means that digital strategy is connected to digital capability in the context of digital culture (Al-Omush et al., 2023). There are two implications from the research. Firstly, digital strategy is an antecedent and not a consequence of investments in technologies. Secondly, culture is the moderator which determines the outcomes of the same strategy.

Research in capability assessment further clarifies what constitutes "digital capability." Building up digital capabilities becomes more and more important for the survival of small firms operating in emerging economies on disruption brought about by the digital age; however, knowledge about what influences capability-building is insufficient, considering the diversity of successful implementations (Maycotte et al., 2025). Through multiple studies and a quantitative survey, a multi-item measure, ORGDIGCAP, with three factors – learning, adoption and integration of digital technologies, but without adoption factor in assessing digital capabilities – was developed and validated (Maycotte et al., 2025). Based on a sample of 137 SMEs in Mexico, the research evaluated the direct impact of digital capabilities of organizations and digital agility and their indirect influence through the mediating role of digital strategy, showing that digital capability building and digital strategy development contribute to digital agility and competitiveness (Maycotte et al., 2025).

That the adoption dimension was excluded from the confirmed scale is analytically important since adoption measures possession of the technology while learning and integration measure internalisation of it. The empirically determined fact that adoption was not a determinant of digital capability means that having the technology is not capability which corresponds to the mediation conclusion that strategy works through capability and not through acquisition of its Al-Omush et al., (2023) and Maycotte et al., (2025).

Dynamic Capabilities, Digital Readiness, and Resource Reconfiguration

The theoretical underpinning that connects all these findings is dynamic capabilities theory. In the study of 400 SME managers and supervisors in Ghana, sensing, seizing, and transforming capabilities were seen to positively influence SME performance, while digitalisation had a significant effect on the relation between each capability and SME performance (Martins, 2023). What is important here is that digitalisation was only seen to have a significant moderating effect on the relation between transforming capability and SME performance (Martins, 2023). Since transforming capability refers to the reconfiguration of internal processes and resources, one can conclude that digitalisation has its best performance effects when applied to organisational transformation and not just sensing. The practical conclusion from these findings is that digitalisation initiatives – digital analytics, digital operations, digital marketing and sales, digital ecosystem, and digital products and services – should be part of the transforming process (Martins, 2023).

The resource-centered view further extends such a logic to sustainability results. Based on dynamic capability theory, a literature review involving 80 peer-reviewed papers published between 2010 and 2025 has been conducted systematically with a focus on the role of digital transformation practices on how small- and medium-sized enterprises build their capabilities. The technologies such as artificial intelligence, Internet of Things, Blockchain technology, big data, and cloud computing transform how small- and medium-sized enterprises sense opportunities, grab digital opportunities and reconfigure resources in order to achieve sustainability goals (Alajmi, 2026). Digital transformation positively impacts five essential resource categories – organizational, human, financial, technological and social resources which become dynamic capabilities for achieving environmental, social and economic sustainability, and it introduces the framework for resource-centered transformation path which explains how small- and medium-sized enterprises make their static resources sustainable (Alajmi, 2026).

Theoretical Basis and Conceptual Framework

The model presented here is based on three theoretical foundations. This is done in the same way as a combination of Barrier-Enabler-Outcome and the resource-based view, dynamic capabilities, and institutional theories to explain frugal innovation (Yesuf & Fields, 2026).

Dynamic capabilities theory gives reasons for differing transformation results. Given that all three elements — sensing, seizing, and transforming — have positive impacts on organizational performance, and digitalization intensifies the effect on transforming capabilities Martins, (2023), a transformation strategy needs to be based on resource reconfiguration and not environmental scanning alone. The Resource-Based Transformation Strategy builds on this idea to state that transformation is accomplished via five resource categories: organizational, human, financial, technological, and social — all transformed into dynamic capabilities for sustaining the environment, society, and economy (Alajmi, 2026).

Institutional theory provides an explanation for why context is relevant. Regulatory regimes outline how the game should be played by firms in cyberspace, with variations in the sophistication and enforcement of the regulations leading to different levels of adoption (Raji et al., 2024). The observation that community-led initiatives are more effective than public and private sector initiatives in terms of adoption Díaz-Arancibia et al., (2024) points to the role of institutions at both ends.

The resource-based theory provides an answer to why limitations may be turned into strengths. Leapfrogging is a facilitation mechanism where firms constrained by resources leverage their problems to innovate quickly (Yesuf & Fields, 2026). In places where there are no legacy systems, nothing needs to be uninstalled.4. Digital Transformation Strategies

The first approach has to do with choosing which technologies and in which order. Since adoption of technology in SMEs in developing countries is mainly about basic information systems and less about cloud computing and artificial intelligence Díaz-Arancibia et al., (2024), the order of adoption is a matter of choice between going deeper at the basic level and moving higher. The evidence suggests that if capability and funding allow for it, it is better to go higher, since the resource implications of transformation work via advanced technologies that transform the way firms perceive opportunities and apply digital solutions and resources (Alajmi, 2026). It is the ecosystem alignment that becomes crucial here, because both adoption dynamics and the role of community efforts are influenced by the entrepreneurial ecosystem and other societal factors, such as government and private sector involvement (Díaz-Arancibia et al., 2024).

The second approach is aimed at rectifying the capability gap. The concept of measuring digital capabilities of SMEs includes learning related to digital tools and strategic integration of these technologies, where adoption is not a determinant (Maycotte et al., 2025). This strategy should focus on the two factors carrying the construct of digital capabilities. Learning involves creating the capacity of the organisation to use and make sense of digital tools, which would have a direct impact on the human resources gap (Chen et al., 2021). Strategic integration involves the incorporation of the tools into organisational processes. Since digital capabilities impact digital agility both directly and indirectly through digital strategy Maycotte et al., (2025), this strategy must be combined with digital strategy development.

The third strategy considers digital strategy as an antecedent to sustainable competitive performance with digital capability as a partial mediator. In other words, strategy is executed via digital capability but does not substitute capability (Al-Omush et al., 2023). Strategy formulation should define domains in which transformation would be applied — organisational, human, financial, technological, or social Alajmi, (2026), as well as the dynamic capability that would be enhanced by this strategy. As digitalisation strongly moderated the transforming capability only among three dynamic capabilities Martins, (2023), strategy should give priority to process, resource, and organisational transformation over analytics purchasing.

The scope of strategy should include operations as well as customer- and ecosystem-oriented activities. Thus, the recommendation derived from Ghanaian research experience suggests that digitalisation strategies, such as continuous implementation of digital analytics, digital operations, digital marketing and sales, digital ecosystem, and digital products and services should be part of the transforming process (Martins, 2023).

Strategy 4 — Digital Culture Cultivation

The fourth approach focuses on cultural factors which influence the effectiveness of the strategy. Digital culture serves as a supporting factor in the relationship between digital strategy and digital capabilities, and the suggested approach

is for SMEs to develop digital culture and digital strategies which increase the digital capability and sustainable competitive performance in dynamic markets (Al-Omush et al., 2023). Here culture acts as a moderator and not as an initiator; it does not replace the strategy but indicates how much digital capability is generated by a certain strategy. Cultivation must be based on data-driven decision-making, experimentation, and cross-functional collaboration, and must be part of the transformation process.

Strategy 5 — Resource-Centred Transformation

The fifth approach outlines the content of the transformation process. Under the Resource-Centered Transformation Path approach, there are five resource domains of organisational, human, financial, technological, and social resources that digital transformation transforms into dynamic capabilities for environmental, social, and economic sustainability (Alajmi, 2026). One of the implications of this approach that are important for the SMEs' strategy is that the success of transformation needs to be evaluated not in terms of technologies used but in terms of what changes happen to every resource domain during transformation. Financial resource limitations become a limiting factor for many SMEs of developing economies because capital is a determining element of starting transformation processes and high costs of implementation and maintenance create competitive disadvantages (Raji et al., 2024; Boom-Cárcamo et al., 2024). Strategy should focus on technologies with good cost-to-reconfiguration ratios and even think about leapfrogging approach because of the lack of legacy investments (Yesuf & Fields, 2026).

Methodology and Evaluation Dimensions

A sequential mixed-method research design will be used, including comparative case study, firm-level survey and policy analysis. The order of the three depends on three reasons. Firstly, since the level of adoption is different and varies across basic information systems Díaz-Arancibia et al., (2024), sample needs to be constructed such that they are stratified according to technological levels instead of being combined into one average sample. Secondly, since strategy and capability act as mediating variables and not as outcomes of adoption Al-Omush et al., (2023) and Maycotte et al., (2025), measures should focus on these variables and not adoption per se. Finally, the policy context determines adoption independent of firm-level characteristics (Raji et al., 2024).

Case sampling needs to be done on services, manufacturing and trading industries as barriers data has been generated in small businesses in the service industry Chen et al., (2021) and capability and strategy data has been gathered from manufacturing SMEs (Al-Omush et al., 2023). It is also important to include cases from formal and informal firms when possible as internet fees are prohibitively high for informal firms (Achieng & Malatji, 2022). Case protocol should include the four barrier classifications of funding, digital capabilities, human resources, and technical constraints (Chen et al., 2021).

Data should be collected on digital strategy formation, digital capabilities in learning and integration dimensions, strength of digital culture, and specific technologies such as analytics, operations, marketing and sales, ecosystem and products and services Martins, (2023) and also outcomes in organizational, human, financial, technological, and social resource realms (Alajmi, 2026). Data on the size of the firm, industry type and geographic markets should also be collected to enable disaggregation of data and items need to be modified for firms operating in more than one country due to the regulatory burden this generates (Raji et al., 2024).

Comparative analysis must focus on the regulation frameworks for digital businesses in the sample economies according to the criteria which the findings consider relevant, namely the business-friendliness of the environment and readiness for experimentation Raji et al., (2024), the harmonisation of frameworks between borders Raji et al., (2024), the inclusion of provisions on data privacy and cybercrime Achieng & Malatji, (2022), and the provision by governmental programs of the roles of the platform, payment, training, and ecosystems required from SME support programs (Chen et al., 2021).

The evaluation will use methodologies including not only economic but also environmental and social pillars, as the criterion for measurement approach that captures performance through digital transformation in sustainability perspective is identified (Melo et al., 2023). Among the priorities identified in this literature, there is cross-temporal investigation Melo et al., (2023); hence, at least two time points for measurements are planned. Inclusion considerations will be documented since methodologies that include sustainability are considered necessary tools for reducing poverty and gender inequalities (Melo et al., 2023).

Propositions and Evaluation Dimensions

The five directional propositions that derive from the framework are:

P1. The formulation of digital strategy prior to technology adoption will lead to higher levels of capability development than the reverse case, in line with the empirical finding that digital strategy impacts performance through the partial mediation of capability (Al-Omush et al., 2023; Tran et al., 2025).

P2. Digital capability will be determined by learning and integration activities, but not by the level of technology adoption, considering the validity results that the adoption dimension was not relevant in assessing digital capabilities (Maycotte et al., 2025).

P3. Digital investment aimed at resource reconfiguration will result in more powerful effects on performance than digital investment in environmental sensing, based on the finding that digitalisation moderated significantly the transforming capability relationship (Martins, 2023).

P4. The strength of digital culture will moderate the relationship between digital strategy and digital capability, thus leading to different levels of capability for companies that pursue similar strategies (Al-Omush et al., 2023) (Table 1).

P5. Companies adopting technologies through community-driven and leapfrogging approaches will have similar capability outcomes to those in more advanced ecosystems, due to the importance of community-driven initiatives and leapfrogging approach for companies with limited resources (Yesuf & Fields, 2026; Díaz-Arancibia et al., 2024).

Table 1: Evaluation Dimensions and Candidate Indicators

Dimension	Indicator focus	Grounding rationale
Technological Depth	Proportion Of Firms Beyond Basic Information Systems; Cloud and Intelligent System Use	Adoption Concentrated in Basic Systems with Advanced Technologies Less Common Díaz-Arancibia et al., (2024)
Barrier Profile	Funding, Digital Capability, Human Resource, And Technical Constraint Severity	Four Main Barriers Identified in Small Service Business Chen et al., (2021)
Digital Capability	Learning Connected to Digital Tools; Strategic Integration	Validated Construct Dimensions with Adoption Excluded (Maycotte et al., 2025)
Digital Strategy	Presence Of Formulated Strategy; Alignment with Resource Domains	Strategy Influences Performance with Capability as Partial Mediator Al-Omush et al., (2023)
Digital Culture	Data-Informed Decision Norms; Experimentation; Cross-Functional Coordination	Culture Reinforces Strategy-To-Capability Link Al-Omush et al., (2023)
Dynamic Capability Effect	Sensing, Seizing, Transforming Capability Levels; Digitalisation Moderation	Digitalisation Augmented All Three; Significant Moderation Only for Transforming Martins, (2023)
Resource Domain Outcomes	Organisational, Human, Financial, Technological, And Social Resources	Five Resource Domains Converted into Dynamic Capabilities Alajmi, (2026)
Sustainability Performance	Economic, Social, And Environmental Outcomes Measured Together	Requirement For Methods Encompassing All Three Pillars Melo et al., (2023)
Regulatory Environment	Framework Adaptability; Cross-Border Harmonisation; Privacy and Cybercrime Provisions	Regulatory Variation and Need for Harmonised Adaptive Frameworks Achieng & Malatji, (2022), Raji et al., (2024)
External Support Access	Capital Access; Community-Driven Versus Institutional Support Channels	Capital As Critical Factor; Community-Driven Efforts Outperforming Institutional Initiatives Díaz-Arancibia et al., (2024) and Raji et al., (2024)

Conclusion

Digital transformation has now become an essential criterion for small to medium sized enterprises in emerging countries and the studies show that most of the organizations are going through digital transformation in a superficial manner as compared to deep digital transformation. The adoption of basic information systems becomes more prevalent whereas cloud computing and artificial intelligence applications do not have much prevalence. These obstacles or challenges which are causing this scenario work in tandem with each other as opposed to individually. In this paper, it has been established that the gap is not a technology procurement issue but a capability and strategy issue.

This model is based on six interrelated commitments: sequencing adoption to be aligned with the local ecology, building capability through learning and integration rather than acquisition, understanding digital strategy as a prerequisite for management functions, fostering a digital culture as the necessary condition for transforming strategy into capability, striving for resource-based transformation at the organisational, human, financial, technological, and social levels, and dealing constructively with the policy environment conditioning all these factors. The unique value

of this framework lies in its ability to link three streams of literature which have been developing independently of each other — barriers and enablers stream, digital capability and strategy stream, and dynamic capabilities stream — and measureable criteria to verify the link.

Resource constraint is not entirely a bad thing, however, because organizations without established systems and commitments are able to implement new architecture and leapfrogging has proven to work as such a facilitative technique whereby organizations facing resource constraints transform challenges into opportunities for innovation. It will be up to capacity, strategy, and the facilitative environment in that order whether this opportunity becomes a reality. In that regard, the research agenda moving forward is empirical. Data is required regarding the effectiveness of a priori strategy vis-à-vis post hoc strategy in terms of capability building, the relative success of resource reconfiguration investment compared to technological acquisition among firms of similar size, and the sustainability of capability in the absence of external assistance.

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