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The Preservation of SME Strategic Independence through Credible Technology Migration Options, Retained Internal Expertise, and Selective Dependence on Digital Vendors

Marta Nowak[1*], Grace Wanjiru[2], Thomas Mwangi[3]

Abstract

Small and medium-sized enterprises increasingly depend on external digital vendors for technologies, expertise, integration capacity, and access to specialized infrastructures that would be costly to reproduce internally. Such dependence can accelerate digital transformation while simultaneously narrowing the firm's ability to redirect its technology strategy when vendors, architectures, prices, or organizational requirements change. This article develops a Capability-Lifecycle Theory explanation of strategic independence under digital vendor dependence. It conceptualizes independence as the practicable capacity to make and implement consequential technology choices without prohibitive reliance on a single external provider. The theory distinguishes nominal alternatives from credible migration options and treats internal expertise as a capability that must be acquired, retained, exercised, renewed, and recoverable rather than merely possessed. Selective vendor dependence is therefore neither equivalent to lock-in nor automatically incompatible with independence. Its consequences depend on whether externally sourced capabilities are complemented by retained evaluative, integrative, and reconfiguration capacities and whether alternative technological arrangements remain executable. The resulting account predicts that strategic independence can coexist with substantial vendor reliance when capability erosion is controlled and migration credibility is periodically reproduced. Conversely, formally available alternatives provide little protection when knowledge decay, non-portability, architectural complexity, or weak internal absorptive capacity makes exit practically infeasible. The article thereby relocates the strategic problem from dependence avoidance to capability-lifecycle governance.

Keywords Dynamic capabilities, Strategic independence, SME digital transformation, Vendor dependence, Technology migration, Capability retention

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Introduction

Digital transformation is increasingly understood as organizational reconfiguration rather than the simple acquisition of digital tools. It involves changes in strategy, structures, processes, capabilities, and value creation that unfold as firms respond to digital disruption [1]. This distinction matters because technologies that merely support existing activities impose different organizational commitments from technologies that reshape value propositions, identities, and core operating arrangements [2]. For small and medium-sized enterprises (SMEs), these commitments are particularly

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consequential because transformation commonly occurs under constrained managerial attention, limited technical staffing, and uneven access to specialized knowledge.

External actors can partially resolve those constraints. Evidence from SME digitalization shows that platform providers can help resource-poor firms develop cognition, social capital, teams, and organizational capabilities that would otherwise be difficult to build internally [3]. Yet access to knowledge is not equivalent to organizational capability. SME evidence also indicates that employee skills, digital strategy, and information technology resources do not translate mechanically into financial outcomes; their effects depend on whether those resources are actually mobilized through the digitalization process [4]. Transformation therefore raises two questions simultaneously: where capabilities can be sourced and whether the focal firm retains enough ability to interpret, combine, redirect, and replace them.

This problem becomes more pronounced as digital transformation deepens. Changes in digital assets, organizational structures, capabilities, and business models become increasingly interconnected as firms move beyond isolated digitization toward broader transformation [5]. For SMEs, competitiveness consequently depends less on the possession of individual digital resources than on alignment among technical, organizational, and cultural elements [6]. Strategic vulnerability may arise even when a technology performs well if the firm gradually loses the practical capacity to evaluate alternatives, integrate replacement systems, or determine whether a vendor's recommendations remain compatible with its own objectives.

The lifecycle character of this problem is visible in recent evidence on externally supported transformation. An SME may initially rely heavily on outsourced expertise and later internalize important digital capabilities as the transformation matures [7]. Such a sequence suggests that external dependence and internal capability are not necessarily competing end states. External expertise can contribute to capability acquisition, while later organizational learning can alter which capabilities must remain outside the firm and which should become internally reproducible.

This article develops that observation into a Capability-Lifecycle Theory of SME strategic independence. Strategic independence is defined here as the practicable capacity to make and implement materially consequential technology and vendor choices without prohibitive dependence on one external provider. Independence does not require technological self-sufficiency. It requires that the SME retain or be able to reconstruct the capabilities necessary to understand its technological position, evaluate alternatives, coordinate migration, and recover operational control when current arrangements become strategically unacceptable.

The central argument is consequently conditional. Vendor dependence may be efficient, capability-enhancing, and strategically defensible when dependence remains selective and alternative configurations can still be enacted. The same dependence may become restrictive when internal expertise decays, technological assets become nonportable, switching becomes organizationally incomprehensible, or alternative suppliers exist only nominally. The analytical task is therefore to trace how capability acquisition, retention, exercise, erosion, migration, and recovery interact with vendor dependence over time rather than to classify firms simply as dependent or independent.

SME Technology Dependence and Strategic Independence

External digital support is not a single organizational condition. Studies of externally supported SME digital innovation show heterogeneous project configurations that differ in technological scope, organizational purpose, and forms of external involvement [8]. An SME using a specialist for episodic implementation, for example, occupies a different dependence position from a firm whose core data, workflows, integration knowledge, and technical decision rights reside predominantly with one provider. Treating both as "outsourcing" conceals the mechanisms that matter for strategic independence.

Digital ecosystems further demonstrate why dependence is analytically ambivalent. Platforms and complementary infrastructures can resolve coordination problems and create value that participating firms could not produce alone, while

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the same structures may generate endogenous failures and asymmetric dependencies [9]. Dependence can therefore expand the feasible opportunity set of an SME while simultaneously making later redirection more costly. Strategic independence cannot be defined as the absence of dependence because complete self-provision would often destroy precisely the specialization and scale advantages that make digital participation valuable.

The relevant issue is how the relationship evolves. Longitudinal work on platform–complementor relationships shows that initially mutually beneficial arrangements can become progressively asymmetric as the platform and the complementor's strategic positions change [10]. A similar temporal problem can arise in SME technology relationships even when no deliberate appropriation occurs. Architectural familiarity may accumulate at the vendor, interfaces may become increasingly customized, internal employees may stop performing technical tasks, and the cost of interpreting the system may gradually migrate outside the firm. Dependence can thus deepen through ordinary capability allocation rather than through an explicit contractual restriction.

Governance structures also demonstrate that formal participation and practical autonomy are different dimensions. Digital-platform research identifies governance arrangements in which control, supported self-organization, and autonomous coordination coexist in different combinations [11]. Applied to SME vendor relationships, this distinction implies that nominal ownership of a system, data, or contract does not by itself reveal who can interpret the system, authorize consequential changes, diagnose failure, or reconstruct the service elsewhere. Strategic independence therefore requires attention to practical control capabilities rather than formal rights alone.

The significance of response capability becomes clearer when an external provider changes direction. Longitudinal evidence from enterprise-software complementors shows that firms can respond to platform-owner moves through different trajectories, including insistence on the existing relationship, strategic pivoting, or detachment [12]. These responses depend on accumulated capabilities and strategic positions rather than becoming available only at the moment of conflict. For SMEs, independence is therefore partly prefigurative: the ability to respond later depends on capabilities, relationships, information, and alternatives maintained before the need to respond becomes urgent.

A capability-lifecycle interpretation consequently treats dependence as a dynamic allocation of expertise and control. External vendors may acquire increasing responsibility because their specialization produces superior immediate performance. At the same time, the SME may either retain enough knowledge to monitor and redirect that relationship or allow evaluative and integrative competence to atrophy. Strategic independence declines when the second process proceeds faster than the first can be reversed. The important distinction is thus not dependence versus independence, but dependence accompanied by reproducible strategic choice versus dependence that progressively disables choice.

Credible Migration Options

An alternative technology provider protects strategic independence only when the alternative is usable. Platform research illustrates this distinction through outside options and multihoming. Complementors that operate across several platforms can sometimes reposition more effectively after changes by a focal platform, while activity across multiple technological environments can also produce learning that is transferred back to the original setting [13, 14]. The implication for SMEs is not that every system should be duplicated. It is that exposure to credible alternatives can preserve knowledge about substitute architectures, suppliers, operating practices, and integration requirements that would otherwise disappear.

Credibility nevertheless depends on more than the existence of another vendor. Research on multihoming shows that ecosystem complexity can increase the cost of adapting or porting existing complements, whereas prior platform experience and modularity can reduce some of those barriers [15]. A migration option is therefore credible only when its technological and organizational requirements can be satisfied within an acceptable range of disruption. Contractual termination rights or a list of nominal suppliers do not by themselves demonstrate migration capability.

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Non-portability can make this distinction especially severe. Evidence from online labor platforms shows how nontransferable reputation can produce switching costs and lock-in even when participation in another platform remains formally possible [16]. The substantive mechanism is broader than that specific setting: valuable assets accumulated inside one technical environment may cease to function as strategic options when they cannot be transferred, reconstructed, or credibly substituted elsewhere. For SMEs, such assets may include data structures, interfaces, system-specific routines, tacit troubleshooting knowledge, configuration histories, or commercially important integrations.

Migration credibility is also configurational rather than universal. Evidence from exporting manufacturing SMEs indicates that successful digital transformation can emerge through multiple combinations of technological, organizational, and environmental conditions [17]. This equifinality cautions against assuming that every SME requires the same migration design. A firm using standardized cloud applications may preserve strategic choice through data portability and documented configurations, whereas a manufacturer operating highly integrated digital production systems may require internal architectural knowledge, replacement-interface competence, and supplier coordination capabilities that are costly to maintain.

Credible migration should therefore be understood as a latent but executable reconfiguration capability. It exists when an SME can identify a viable alternative, determine what must be transferred or rebuilt, interpret dependencies among systems, mobilize the necessary internal and external expertise, and coordinate transition without placing core operations at unacceptable risk. Its strategic value lies partly in remaining unused. An SME does not need to migrate continually for the option to matter; it needs the organizational and technical capacity to make migration believable when strategic circumstances change.

Migration credibility consequently connects dependence with capability lifecycle. Alternatives that are credible today can deteriorate as systems are customized, employees leave, vendor-specific knowledge accumulates externally, documentation decays, or replacement architectures diverge. Conversely, credibility can be strengthened through modular design, repeated internal participation in integration work, deliberate exposure to alternatives, and retention of sufficient technical understanding to reconstruct critical functions. Migration is therefore not only an event at the end of a vendor relationship. It is a capability whose feasibility is produced or eroded throughout the relationship.

The distinction between nominal alternatives and executable migration capability establishes the first major lifecycle boundary of the theory: the same degree of observable vendor reliance can generate very different strategic consequences depending on whether the SME continues to reproduce the capabilities required to redirect that reliance.

The relationships discussed here are shown in **Figure 1.**

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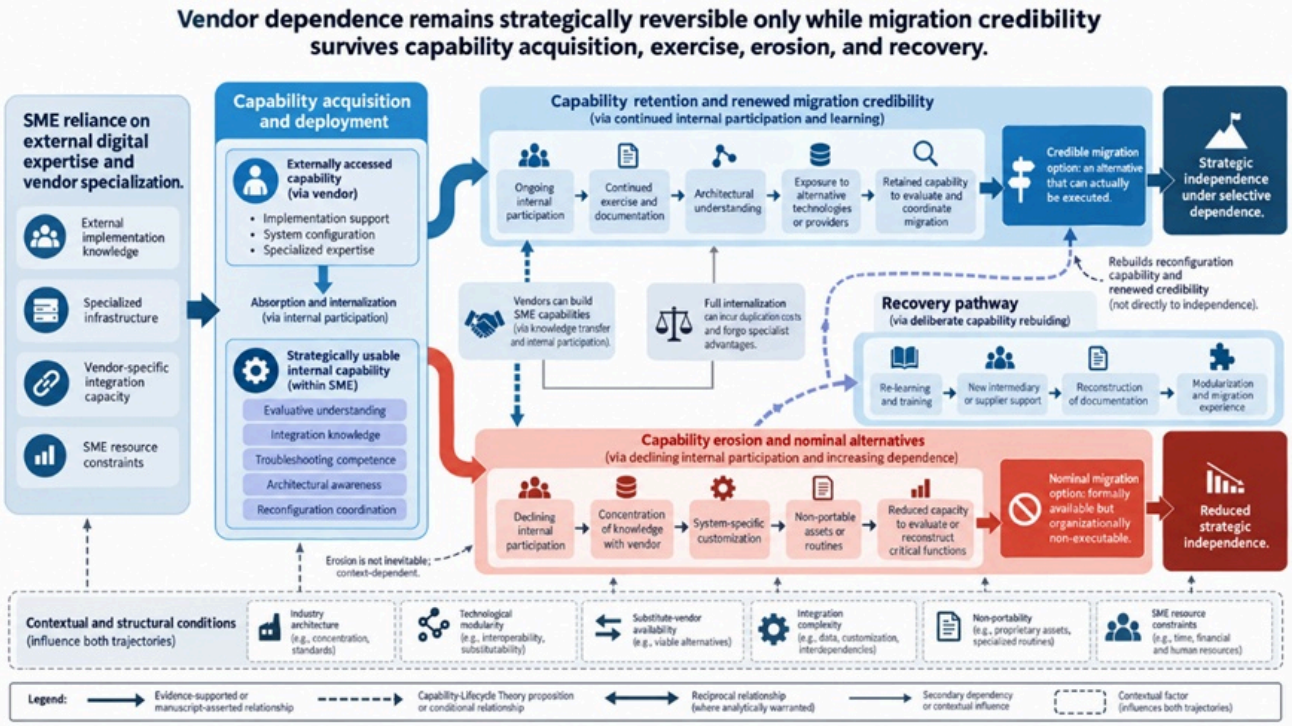

Figure 1. Vendor dependence remains strategically reversible only while migration credibility survives capability acquisition, exercise, erosion, and recovery

Retained Internal Expertise

The capability-lifecycle perspective begins from the premise that organizational capability is not equivalent to a static stock of technical knowledge. Dynamic-capabilities research defines strategic capacity through the ability to integrate, build, and reconfigure internal and external competences as environments change [18]. Applied to vendor-dependent SMEs, the relevant issue is therefore not whether knowledge once existed internally, but whether enough knowledge remains usable to interpret technological choices and coordinate future reconfiguration.

Digital transformation reinforces this temporal requirement because capability development is an ongoing process of strategic renewal [19]. Expertise that is created during implementation can lose strategic value when employees stop using it, system architecture changes, or decision making migrates permanently toward an external provider. Capability retention consequently depends on continued exercise. An SME whose employees understand a system only at the time of installation may possess historical knowledge without possessing current reconfiguration capability.

Research on artificial-intelligence implementation in manufacturing SMEs illustrates the broader mechanism. Digital resources become organizationally consequential through processes of structuring, bundling, learning, governance, and deployment rather than through acquisition alone [20]. The same logic applies to vendor-dependent technologies more generally. Internal expertise remains strategically useful when employees continue to participate in specification, integration, exception handling, evaluation, and change decisions. Participation reproduces knowledge of how the technology relates to the firm's own processes.

Managerial capability is also important because strategic independence requires judgment about technology, not simply technical maintenance. Evidence from innovative SMEs associates managerial digital expertise, connectivity, and empowering leadership with digital transformation [21]. Such expertise helps the organization interpret vendor proposals,

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determine when technical recommendations have strategic consequences, and connect digital choices with product, process, or business-model decisions. The capability at issue is therefore partly technical and partly managerial.

Internal retention further depends on organizational conditions that make expertise reproducible beyond one individual. SME research links dynamic capabilities with the cultivation of digital leadership and digital culture that support transformation [22]. A strategically important competence that exists only in one employee, one founder, or one project team remains fragile. Capability retention becomes more credible when knowledge is distributed sufficiently to survive turnover, when technical reasoning is documented, and when internal actors continue to exercise judgment over consequential system changes.

Retained expertise does not imply reproducing every vendor capability internally. Its strategic function is narrower: the SME must preserve enough evaluative, integrative, and reconfiguration competence to understand what the vendor is doing, recognize when the relationship is no longer strategically acceptable, and coordinate a credible response. This distinction produces a proposed minimum viable capability kernel. The kernel is not a fixed checklist or empirically established threshold. It is the subset of internal capabilities whose loss would make consequential technology choices increasingly dependent on the incumbent provider's own interpretation, implementation, and transition support.

The resulting analytical distinction is summarized below.

Table 1 presents the analytical distinctions discussed here.

Table 1. Internal capability states that determine whether external digital expertise remains governable and replaceable

Retained capability state	What the SME can still do internally	Vendor-facing function preserved	Lifecycle significance	Strategic-independence implication	Failure mode if capability erodes
Evaluative understanding	Interpret system performance, limitations, proposed changes, and technical trade-offs	Challenge, verify, and contextualize vendor recommendations	Keeps capability in active exercise	Vendor expertise can be used without surrendering all judgment	Vendor interpretation becomes the firm's only credible interpretation
Architectural understanding	Understand major dependencies among data, interfaces, processes, and complementary systems	Assess consequences of changing components or providers	Supports retention and future reconfiguration	Alternative configurations remain intelligible	Alternatives exist formally but their integration consequences cannot be evaluated
Integration competence	Coordinate data flows, interfaces, process dependencies, and internal ownership of requirements	Specify and supervise external integration work	Converts external resources into organizational capability	Migration can be coordinated without total reliance on the incumbent	Switching requires the incumbent to explain or reconstruct its own embedded architecture

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Exception and troubleshooting knowledge	Diagnose important deviations and distinguish business-process problems from technology failures	Evaluate vendor diagnosis and escalation	Maintains capability through repeated exercise	Operational dependence does not eliminate internal diagnostic judgment	Problem resolution becomes inseparable from vendor participation
Reconfiguration coordination	Define migration requirements, sequence changes, mobilize internal users, and combine replacement expertise	Organize transition across internal and external actors	Connects retained capability with migration/recovery	Exit can become operationally credible even if implementation is externally supported	Contractual exit remains available while organizational migration becomes impracticable
Capability-recovery capacity	Rebuild missing knowledge through learning, recruitment, documentation, partners, or migration experience	Reconstitute governance when prior expertise has decayed	Provides a recovery route after erosion	Strategic independence may be restored rather than permanently lost	Capability loss becomes self-reinforcing because the firm cannot organize its own rebuilding

The table distinguishes capability retention from complete insourcing. The proposed capability kernel concerns the functions required to govern, reinterpret, and reconfigure external expertise; it does not imply that an SME should reproduce specialist infrastructure, software engineering, cybersecurity, or other provider competences whenever external provision is more effective.

Selective Vendor Dependence

Once retained expertise is distinguished from full internalization, the strategic problem becomes one of allocation. Evidence from manufacturing SMEs shows that suppliers can occupy different roles in digitally enabled services, ranging from relatively operational involvement to more collaborative or strategically significant participation [23]. The appropriate form depends on the SME's own capabilities, readiness, and service strategy. Vendor dependence should therefore be selective across activities rather than treated as one organization-wide degree of outsourcing.

Selective dependence is strategically attractive because specialist providers may possess capabilities that SMEs cannot efficiently reproduce. Innovation intermediaries can support transformation by connecting firms with knowledge, partners, and ecosystem resources [24, 25]. These relationships demonstrate that external capability access can enlarge rather than diminish the firm's effective competence. A vendor or intermediary may introduce practices, architectures, or technical knowledge that later become partly internalized, making dependence itself a mechanism of capability acquisition.

The risk arises when the allocation of work simultaneously removes the SME from the activities through which strategically important expertise is reproduced. A provider may efficiently operate a system while the SME retains architectural understanding and decision authority; alternatively, operational convenience may gradually remove

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employees from specification, integration, troubleshooting, and change evaluation. These arrangements can look similar in procurement terms while producing different capability trajectories.

Nor does the theory imply that increasing internal digital capability always improves outcomes. Evidence on SME digital orientation identifies a non-linear relationship with performance, indicating that greater digital orientation can initially impose costs before stronger capability configurations generate higher returns [26]. Internal retention likewise consumes managerial attention, staffing, training expenditure, and opportunity cost. Maintaining redundant expertise for every technology could weaken rather than protect an SME if the resources required exceed the strategic value of the retained option.

Selective vendor dependence should therefore concentrate external reliance where specialization, scale, or rapid access generates substantial value while protecting internal participation where loss of competence would disable future strategic choice. The dividing line will vary by technology. Routine infrastructure may permit substantial externalization when standards, portability, and substitute providers are strong. Highly customized systems may require deeper internal architectural knowledge because replacement depends on understanding organization-specific integrations. Technologies that influence product design, customer relationships, proprietary data, or core operating processes may require yet another configuration because technical decisions can become strategic decisions.

Capability-Lifecycle Theory thus reframes selective dependence as a managed distribution of capability reproduction. Some capabilities can remain external because the market can credibly replace them. Others must remain internally exercisable because they allow the SME to evaluate, integrate, redirect, or reconstruct externally supplied capabilities. Still others may move between internal and external locations as technology and organizational needs change.

The strategic objective is consequently not minimum vendor dependence. It is preservation of reversible dependence: reliance on external specialists that continues to generate value without allowing the firm's ability to understand and alter its technological position to disappear. Whether such reversibility ultimately changes the firm's bargaining relationship with its vendors depends on how credible those retained migration capabilities appear in practice, which is the focus of the next section.

Exit Credibility and Bargaining Power

A migration option contributes to strategic independence only when it can be exercised with tolerable disruption. Longitudinal platform evidence shows that firms confronted with adverse owner moves may insist on the existing relationship, pivot, or detach, but those responses depend on positions and capabilities accumulated before the triggering event [12]. Outside options similarly shape strategic response [13]. Migration feasibility itself depends on conditions such as ecosystem complexity, prior experience, and modularity [15], while nontransferable assets can create lock-in even when alternative platforms formally remain available [16]. For SMEs, these findings distinguish contractual exit from credible exit capability.

Credible exit capability is proposed here as the organization's practicable ability to identify an alternative arrangement, understand the consequences of leaving, transfer or reconstruct critical resources, and coordinate transition without unacceptable operational disruption. It does not require routine switching or permanent duplication of infrastructure. Its significance is that continuation with the incumbent remains a revisable strategic choice.

Bargaining consequences follow only conditionally from that capability. Platform-governance research shows that practical autonomy can coexist with external control in different configurations [11], while SME evidence indicates that supplier involvement varies with the focal firm's capabilities and service strategy [23]. An SME that understands its architecture, integration dependencies, and alternative sourcing possibilities can evaluate vendor proposals against feasible alternatives. A firm lacking those capabilities may possess identical contractual rights while remaining practically unable to contest consequential changes.

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Exit credibility is also perishable. Dynamic-capabilities theory treats competence as something repeatedly built and reconfigured [18], and digital-transformation research describes capability development as continuing strategic renewal [19]. Migration readiness can therefore deteriorate even when the vendor market remains unchanged. Knowledge becomes obsolete, employees stop exercising integration competence, or system customization exceeds what the SME can independently interpret. Strategic independence consequently depends on the joint presence of external alternatives and internally renewable capability rather than either condition alone.

Strategic Independence Framework

The framework integrates three capability movements. External vendors can first enlarge the SME's feasible capability set by providing specialist knowledge, infrastructure, and implementation capacity. Internal participation then determines whether strategically important knowledge is retained and exercised. Finally, retained capability interacts with migration feasibility to determine whether an alternative configuration is executable when circumstances change.

Strategic independence is therefore not an end-state produced by insourcing. Evidence from innovative SMEs shows that digital transformation contributes to performance partly through its conversion into business-model innovation [27]. Capability that is retained but disconnected from consequential strategic action can therefore be costly without creating useful independence.

Recovery must also remain inside the lifecycle. Crisis research shows that SMEs can develop higher-order resilience through multilevel capability reconfiguration [28]. Expertise that has eroded is thus not necessarily irrecoverable. Recruitment, relearning, documentation reconstruction, alternative suppliers, and external support may restore the capacity required for migration. Business-network evidence further shows that external relationships can help SMEs develop particular organizational capabilities [29]. Diversified dependence may therefore strengthen independence when it prevents one incumbent vendor from becoming the sole source of technological interpretation.

Strategic independence is consequently configurational. Similar levels of vendor use can correspond to very different positions depending on retained expertise, migration credibility, and capability-recovery capacity. The configurations below make those differences explicit.

Table 2 presents the analytical distinctions discussed here.

Table 2. Strategic-independence configurations produced by different combinations of migration credibility, retained capability, and vendor dependence

Strategic-independence configuration	Migration option status	Retained internal capability	Vendor-dependence pattern	Response when vendor conditions change	Proposed strategic implication	Principal failure boundary
Reversible specialization	Executable	Actively exercised and renewable	High but selective	Remain, renegotiate, or migrate according to comparative strategic value	Dependence remains contestable because alternatives can actually be implemented	Substitute market disappears or architecture becomes materially nonportable
Latent fragility	Nominally available	Present but weakly	Moderate to high	Delay while knowledge and	Apparent alternatives	Capability obsolescence

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		exercised		transition capacity are reconstructed	provide limited practical leverage	progresses faster than renewal
Captive competence gap	Formally available but non-executable	Eroded in evaluation, integration, or transition coordination	Concentrated around incumbent vendor	Accept incumbent arrangements unless capability is first rebuilt	Formal exit rights coexist with weak practical strategic choice	Recovery cost or disruption exceeds SME resources
Renewal-dependent independence	Executable while capability remains current	Small but deliberately maintained	Specialist-intensive and selective	Continue external specialization while renewing internal evaluative and reconfiguration competence	Independence is reproduced through capability renewal rather than extensive insourcing	Renewal is deferred until expertise loses practical relevance
Recovery configuration	Initially weak, becoming executable	Being reconstructed through learning, recruitment, networks, or replacement partners	Dependence redistributed during rebuilding	Rebuild capability before or during staged migration	Strategic choice can return after erosion but with additional delay and cost	No viable alternative ecosystem or inadequate coordination capacity

The table demonstrates why Capability-Lifecycle Theory does not imply a universal make-or-buy boundary. Extensive outsourcing may remain reversible when migration and internal capability are credible, while apparently diversified sourcing can still conceal dependence if the SME cannot coordinate a transition.

Propositions

The framework generates discriminating propositions concerning conditions under which observable vendor dependence produces different strategic outcomes.

Proposition 1. At comparable levels of vendor dependence, SME strategic independence will be greater when alternative technological arrangements are executable rather than merely contractually or commercially available. Outside options can change strategic responses [13], while porting complexity can restrict the feasibility of using them [15]. Nontransferability can further transform nominal choice into practical lock-in [16].

Proposition 2. Retained evaluative and integrative expertise will strengthen the relationship between available alternatives and strategic independence because such expertise enables an SME to interpret migration requirements and coordinate reconfiguration. Dynamic-capabilities theory supports the importance of continuing reconfiguration capacity [18]. Digital-transformation evidence separately indicates that such capability requires ongoing strategic renewal [19].

Proposition 3. Vendor dependence will be more compatible with strategic independence when it is selectively allocated and the SME continues to participate in functions necessary for evaluation, integration, and reconfiguration. Variation in supplier involvement among manufacturing SMEs supports treating supplier dependence as configurational rather than uniform [23].

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Proposition 4. The strategic value of retaining internal digital capability will not increase monotonically where the cost of reproducing specialist expertise exceeds the option value created by internal retention. Configurational SME evidence rejects a one-best-way transformation path [17]. The observed non-linear relationship between digital orientation and performance provides an additional boundary against assuming that more internal digital capability is always beneficial [26].

Proposition 5. Strategic independence can be recovered after capability erosion when an SME can reconstruct migration-relevant knowledge through learning, recruitment, new partners, or external networks. Crisis evidence supports capability reconfiguration as a source of resilience [28]. Business-network evidence independently shows that external relationships can contribute to the development of organizational capabilities [29].

Comparable vendor dependence can therefore remain reversible, become fragile, or harden into practical captivity. The discriminating conditions are represented below.

The relationships discussed here are shown in **Figure 2.**

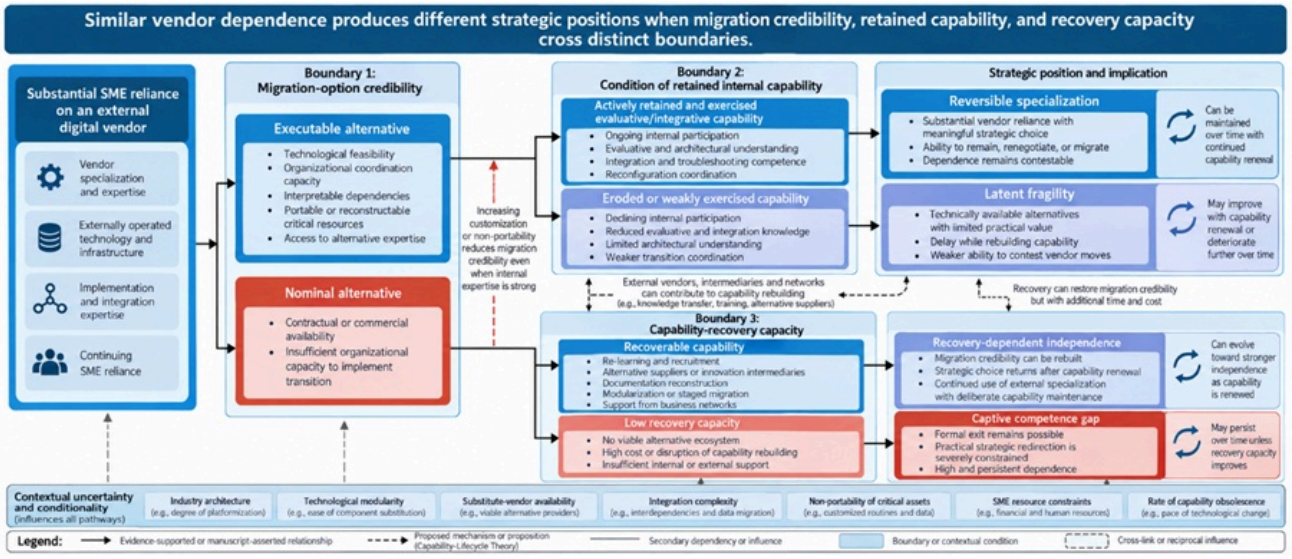

Figure 2. Similar vendor dependence produces different strategic positions when migration credibility, retained capability, and recovery capacity cross distinct boundaries

SME Technology-Management Implications

The first technology-management implication is that capability location should be governed deliberately. Resource-orchestration research shows that digital resources create capability through learning, bundling, governance, and deployment [20], while managerial digital expertise contributes to transformation processes [21]. A sourcing decision should therefore consider not only whether a vendor can perform an activity efficiently but also whether transferring that activity removes the SME from a capability it may later need to evaluate or redirect the technology.

Capability retention should also be treated as active practice. Digital leadership and organizational culture help sustain transformation capability [22], and supplier involvement varies according to SME capabilities and strategic requirements [23]. Retained expertise consequently requires continued participation in consequential activities such as architecture interpretation, integration decisions, specification changes, and exception handling. Documentation supports this process but cannot replace competence that is no longer exercised.

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External relationships should simultaneously be evaluated for their capability-building potential. Innovation intermediaries can help SMEs mobilize ecosystem knowledge [24]. Knowledge brokers can likewise support transformation through alignment and access to distributed expertise [25]. Business networks can contribute to capability development associated with technology adoption [29]. Strategic independence can therefore be strengthened by external relationships when those relationships diversify knowledge and increase the SME's own capacity to understand and redirect its technological resources.

Migration readiness should finally be reconsidered as both technology and capability change. This does not require invented readiness scores, fixed audit intervals, or routine switching exercises. It requires managerial attention to whether important data remain accessible, system dependencies remain understood, substitute expertise remains obtainable, and internal capability is current enough to coordinate recovery or migration. Because digital capability investment can have non-linear consequences [26], the cost of maintaining redundant expertise should remain part of that judgment.

Strategic independence should therefore be evaluated through the choices the SME can still execute, not through the proportion of digital activity operated internally. High vendor reliance can remain strategically reversible when capability and alternatives are credible. Extensive internal ownership can still produce weak independence if expertise has become obsolete or complementary resources cannot be replaced.

Conclusion

SME strategic independence is not the absence of digital vendor dependence. It is the continuing ability to make and implement consequential technology choices while using external specialization where that specialization creates value. Capability-Lifecycle Theory explains why this ability changes over time. Vendors can contribute to capability acquisition, internal participation determines whether essential expertise remains exercised and renewable, technological architecture shapes whether alternatives remain executable, and recovery capacity determines whether capability erosion becomes persistent or reversible.

Formal choice is therefore insufficient. An SME may possess termination rights and alternative suppliers while lacking the practical capability to coordinate a transition. Conversely, substantial dependence on a specialist vendor can coexist with strategic independence where the SME preserves enough evaluative, integrative, and reconfiguration competence to make alternative arrangements credible.

The theoretical boundary is consequently contextual rather than universal. Strategic independence is strongest when selective external dependence, retained internal expertise, executable migration options, and capability-recovery mechanisms reinforce one another. It weakens when specialization becomes concentration of strategic knowledge, non-use becomes capability erosion, and market alternatives cease to be organizationally executable. The central technology-management problem is therefore the preservation of reversible dependence: retaining and renewing those capabilities whose disappearance would make future strategic choice depend on the incumbent vendor itself.

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