TECHNOLOGY-DRIVEN DIGITAL TRANSFORMATION IN B2B SALES: A CASE STUDY OF PT. RIYADI EMART INDONESIA IN INDONESIA'S MANUFACTURING SECTOR

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Abstract

Digital procurement is a critical enabler of efficiency in B2B markets, yet its adoption remains inconsistent, especially within emerging economies. This study investigates the barriers to this adoption through a qualitative case study of PT. Riyadi Emart Indonesia (REI), a B2B industrial distributor. Using an integrated framework of Diffusion of Innovation (DOI), the Unified Theory of Acceptance and Use of Technology (UTAUT), and Institutional Theory, the research analyzes interview data, operational platform records, and comparative analysis between SMEs and large manufacturers.

The findings reveal that limited adoption stems not from technological shortcomings but from institutional misalignment, cultural norms favoring relationship-based procurement, organizational constraints, and varied customer capabilities. SMEs struggle primarily with effort expectancy and facilitating conditions, while large enterprises face barriers related to compatibility and governance. These interacting factors suppress usage despite recognized performance benefits.

In response, the study proposes a multi-level adoption framework, recommending strategies to enhance institutional legitimacy, strengthen organizational incentives, and improve platform compatibility and usability. This research contributes to management literature by demonstrating how theory-driven analysis can inform actionable digital transformation strategies, offering practical guidance for aligning digital platforms with institutional and behavioral realities in emerging markets.

Keywords: Digital Procurement, B2B E-commerce, Technology Adoption, UTAUT, Diffusion of Innovation, Institutional Theory, Case Study.

1. INTRODUCTION

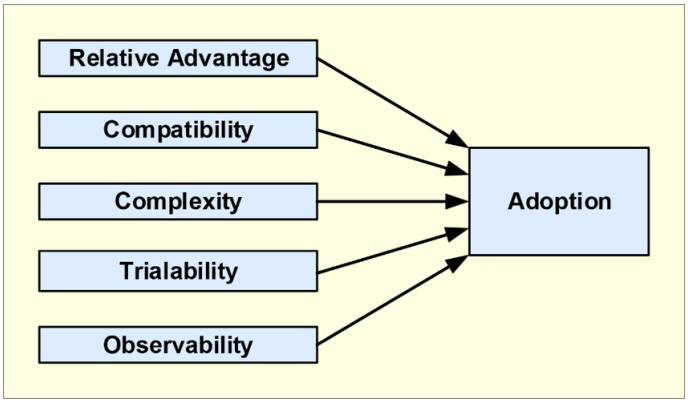
The global proliferation of Industry 4.0 technologies has ushered in a new era of smart manufacturing, characterized by interconnected systems, predictive analytics, and autonomous operations. However, this technological revolution has progressed unevenly, revealing a significant disconnect: while digital transformation within the **production floor** has been extensively studied, its counterpart in **business-to-business (B2B) procurement** remains a critical frontier, especially within emerging economies. Digital procurement platforms offer a powerful value proposition—enhancing transparency, reducing transaction costs, and streamlining supply chain coordination (Rahman et al., 2023). Yet, their adoption is often stymied not by a lack of technological capability, but by a complex web of **institutional legacies, cultural norms, and organizational inertias**.

This paradox is vividly illustrated in **Indonesia**, Southeast Asia's largest manufacturing economy. Here, industrial procurement is deeply embedded in a **relationship-based ecosystem** built on long-term trust, personal negotiation, and informal networks (Putra et al., 2023). While this system has provided stability, it also creates a fundamental **institutional misfit** with the logic of standardized, impersonal digital platforms. Consequently, even when platforms are adopted—as was expedited during the COVID-19 pandemic—their use often remains superficial, reverting to traditional channels once immediate pressures subside. This points to a research imperative: to move beyond explaining adoption through technical features alone and to examine the **socio-technical barriers** that sustain this adoption gap.

Existing theoretical frameworks provide partial explanations. Models like the **Diffusion of Innovation (DOI)** and the **Unified Theory of Acceptance and Use of Technology (UTAUT)** effectively highlight factors such as perceived usefulness, ease of use, and social influence (Venkatesh et al., 2021). However, by focusing on the organizational or individual level, they often treat the institutional environment as a passive backdrop. To fully dissect the adoption challenge in contexts like Indonesia, it is essential to integrate these views with **Institutional Theory**, which explains how regulative rules, normative expectations, and cultural-cognitive schemas grant legitimacy to existing practices and resist change (Scott, 2014).

The Diffusion of Innovation (DOI) Theory (see **Figure 1**), as described by Rogers (2003) and developed further by Quaye et al. (2024) and Restrepo Morales et al. (2024), provides a strong foundation for understanding how new technology is accepted within a social system. This theory posits that the pace of adoption is determined by five perceived attributes: relative advantage, compatibility, complexity, trialability, and observability. These attributes, illustrated in **Figure 1**, are influenced by social and organizational variables that shape technology acceptance in B2B contexts.

Figure 1. *Diffusion of Innovation (DOI) attributes. Adapted from Rogers, E. M. (2003). Diffusion of Innovations (5th ed.). New York: Free Press. Diagram redrawn by author (2025)*



The Diffusion of Innovation (DOI) Theory, as described by Rogers in 2003 and later developed further by Quaye et al. in 2024 and Restrepo Morales et al. in 2024, provides a strong theoretical foundation regarding how new technology may be

generally accepted within a particular social system. The DOI Theory assumes that the pace and level of technology acceptance are determined by a set of five perceived innovation characteristics termed relative advantage, compatibility, complexity, trialability, and observability. The characteristics of innovation are influenced by social and organizational variables that determine how technology innovations are generally accepted in a business-to-business organization.

To investigate this multi-layered problem, we conducted an in-depth case study of **PT. Riyadi Emart Indonesia (REI)**, a major industrial distributor. REI represents a critical case: despite investing in a sophisticated proprietary B2B platform, only about 35% of its manufacturing clients have migrated the majority of their procurement online (REI Data, 2024). This discrepancy between technological investment and adoption outcome makes it an ideal setting to explore barriers that are not merely technical.
Guided by an integrated DOI-UTAUT-Institutional framework, this study addresses the following questions:
(1) What institutional, cultural, and organizational factors hinder digital procurement adoption in Indonesian manufacturing firms?
(2) How do these barriers differ between SMEs and large enterprises?
(3) What strategies can support more sustainable and context-sensitive digital procurement adoption?

By answering these questions, this research aims to provide a holistic understanding of digital procurement adoption, contributing to theory by bridging technological and institutional perspectives, and offering actionable insights for practitioners navigating digital transformation in similar emerging markets.

2. METHODOLOGY

To explore the complex human and organizational dynamics behind the slow adoption of digital procurement platforms, this study was designed as a **qualitative, in-depth case study** (Yin, 2018). We sought to move beyond surface-level explanations and understand the “why” behind the statistics, focusing on the lived experiences and perceptions of those directly involved.

The research centred on **PT. Riyadi Emart Indonesia (REI)**, a long-established industrial distributor. REI represented a compelling **critical case** for investigation (Patton, 2015). The company had made a significant technological leap by developing a sophisticated digital procurement platform, yet this innovation failed to resonate with a large portion of its customer base. This stark contrast between technological capability and user adoption made REI an ideal setting to uncover barriers that are social and institutional, rather than purely technical.

Our primary window into this puzzle was through conversations. Between July and October 2024, we conducted **20 semi-structured interviews** with a diverse group of stakeholders woven into the fabric of the procurement ecosystem. We spoke

with REI's own leadership, platform developers, and sales personnel to understand the provider's intentions and challenges. More extensively, we listened to the customers—purchasing managers from large multinational corporations, factory owners from small and medium-sized enterprises (SMEs), and production engineers on the shop floor. Each interview, lasting 45 to 90 minutes, was a guided conversation, allowing participants to share stories, frustrations, and rationales in their own words. These dialogues were recorded, transcribed, and formed the core narrative of our data.

Recognizing that what people say can sometimes differ from what they do, we complemented these interviews with other forms of evidence through **methodological triangulation** (Jick, 1979). We observed procurement workflows firsthand at several client sites, reviewed REI's internal platform usage analytics and sales reports, and examined training materials and company communications. This process allowed us to build a more robust and trustworthy understanding by comparing spoken accounts with documented evidence and observed behaviours.

Making sense of this rich, multifaceted data was an iterative process of discovery. We began by immersing ourselves in the interview transcripts, using a **reflexive thematic analysis** approach (Braun & Clarke, 2021). Our analysis was guided by an **abductive logic**, iterating between our empirical data and the integrated theoretical framework (DOI, UTAUT, Institutional Theory) that informed the study's design (Rogers, 2003; Venkatesh et al., 2003; Scott, 2014). We remained open to what the data itself was telling us. Through careful, repeated reading, we identified recurring themes and surprising insights that emerged directly from the participants' experiences. The deep-seated language of trust, the palpable fear of damaging relationships, and the starkly different challenges faced by a small workshop versus a large corporation became central themes. We refined these themes by constantly comparing perspectives, ensuring our final analysis faithfully represented the complex reality of the digital adoption gap, grounded in the voices of those who live it.

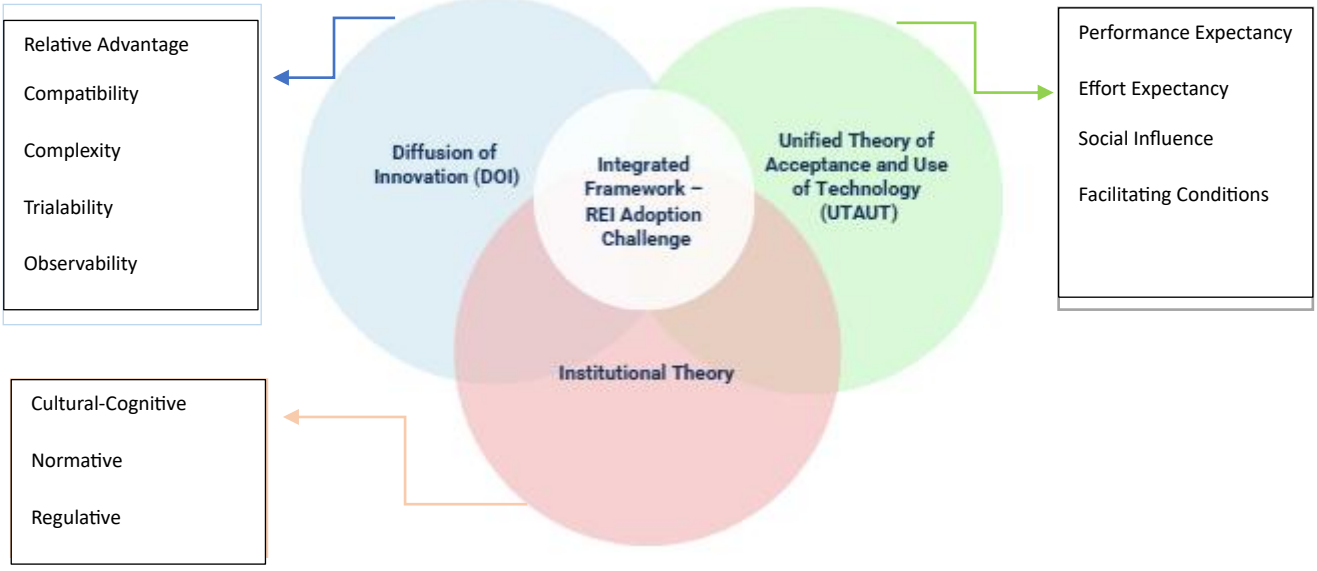
Throughout this study, we adhered to rigorous ethical standards, ensuring informed consent, confidentiality, and anonymity for all participants. Our methodological approach was thus not merely a procedural checklist, but a deliberate effort to listen closely and interpret deeply, aiming to uncover the human story behind a technological challenge.

3. FINDINGS AND DISCUSSION

The discussion interprets these findings through the integrated theoretical lens of Diffusion of Innovation (DOI), the Unified Theory of Acceptance and Use of Technology (UTAUT), and Institutional Theory. The structure moves from identifying the multi-level barriers to adoption, to a comparative analysis of how these barriers

manifest differently across organizational sizes, and concludes with the theoretical implications of the study.

Figure 2. *Integrated conceptual framework (DOI + UTAUT + Institutional Theory) applied to REI. Source: Author's elaboration (2025).*



These models are complementary. While DOI and UTAUT pinpoint immediate determinants of adoption at the individual and organizational levels, Institutional Theory actively describes the "rules of the game" within the broader environment. **Table 2** maps the key constructs from each theory to their specific manifestations and roles as barriers or enablers in the REI case, providing a structured overview of the multi-level analysis that follows.

Table 1. Integrated Conceptual Framework Mapping

Theory & Key Constructs	REI Manifestation	Adoption Barrier / Enabler
DOI - Relative Advantage	Operational efficiency, transparency, scalability	**Enabler** – Recognized benefits align with B2B best practices
DOI - Compatibility	Misaligned with negotiation-centric procurement culture	**Barrier** – Cultural misfit reduces adoption motivation
DOI - Complexity	High learning curve for SMEs with low digital literacy	**Barrier** – Perceived difficulty deters trial

Theory & Key Constructs	REI Manifestation	Adoption Barrier / Enabler
UTAUT - Performance Expectancy	Recognized ability to improve accuracy and speed	**Enabler** – Supports intention if other barriers are addressed
UTAUT - Effort Expectancy	Difficult navigation for SMEs outside hubs	**Barrier** – Inhibits early adoption
UTAUT - Social Influence	Low adoption by key buyers and suppliers	**Barrier** – Weak adoption signals
UTAUT - Facilitating Conditions	CRM investment, but training/ERP gaps remain	**Barrier** – Infrastructure incomplete
Institutional - Cultural-Cognitive	Trust-based procurement norms dominate	**Barrier** – Norms conflict with platform standardization
Institutional - Normative	Industry expectations reinforce offline procurement	**Barrier** – Social pressure against digital shift
Institutional - Regulative	Lack of targeted procurement incentives	**Barrier** – No external push to adopt

As shown in **Table 2**, the convergence of these models becomes clear: for example, the DOI factor of "compatibility" is heavily influenced by Institutional "normative pressures," while UTAUT's "facilitating conditions" depend on "regulative pressures." This integrated approach directly addresses the research gap identified in Chapter 1. DOI theory breaks down how the perceived attributes of the innovation—in particular, relative advantage, compatibility, complexity, trialability, and observability—are linked with adoption intentions. It emphasizes the conflict between the process advantages of the platform and the lack of compatibility with Indonesia's negotiatory procurement system. The UTAUT model offers another perspective by concentrating on the user-oriented adoption factors, including effort expectancies, social influences, and facilitating factors, which identify the difficulties stemming from ease of use, social factors, and infrastructure. Lastly, Institutional Theory puts these adoption processes into the larger sociocultural, ideological, and regulatory context by articulating how existing procurement practices, coupled with the lack of specialized policy motivations, may sustain resistance to change.

This integrative approach directly addresses the identified research gap in Bab 1: previous adoption studies in emerging market contexts have barely combined technical adoption models with institutional analysis in explaining the persistent low uptake of advanced procurement systems. In so doing, the framework enhances not only theoretical rigour but also practical relevance, thus setting a wider basis for designing interventions that simultaneously tackle technological, behavioural, and institutional barriers to digital procurement adoption.

3.1 Multi-Level Barriers to Digital Procurement Adoption

The analysis reveals that the low adoption of REI's platform is not a monolithic issue but stems from interconnected barriers at institutional, cultural-cognitive, organizational, and platform levels. These barriers collectively create an ecosystem where maintaining traditional practices is perceived as less risky and more legitimate than adopting the digital innovation.

3.1.1 Regulative and Institutional Barriers

A dominant theme was the absence of coercive or normative pressure to adopt digital procurement. Despite national policies like *Making Indonesia 4.0*, digital channels remain decoupled from formal compliance and audit requirements. This grants enduring legitimacy to offline methods. As a procurement director from a large automotive firm stated, *"For our ISO audits and internal compliance, what matters is documented proof of the order—a PDF from the platform or a scanned copy of a fax are equally valid. There is no mandate for the channel itself."*

This institutional "optionality" meant that adopting the digital platform was perceived as a discretionary operational choice rather than a strategic or compliance necessity. The lack of regulative mandates (Scott, 2014) and weak normative pressures from industry peers allowed firms to opt out without reputational or operational penalty, directly undermining the perceived *relative advantage* (Rogers, 2003) of making a potentially disruptive change.

3.1.2 Cultural-Cognitive Barrier: The Primacy of Relational Trust

The most profound barrier was the deep-seated cultural norm equating effective procurement with personal, trust-based relationships. This norm clashed fundamentally with the impersonal, transaction-oriented logic of the digital platform. Participants consistently framed procurement not as a mere transaction, but as a relational safeguard.

A sales supervisor at REI encapsulated this tension: *"My biggest client calls me directly because he trusts me to solve problems—a delayed shipment, a quality issue, a special payment term. If I push him to a platform, he feels I'm handing him off to a machine. That trust, which we've built over years, feels at risk."* On the customer side, an SME owner confirmed: *"When I negotiate with my regular supplier, we're not just haggling over price. We're building a promise. If things go wrong, I know who to hold accountable. With a system, who do I call?"*

This evidence highlights that the key DOI attribute of *compatibility* was severely compromised. The innovation was incompatible not with workflows, but with the underlying cultural schema that procurement security is derived from interpersonal bonds, not systemic efficiency.

3.1.3 Organizational and Behavioral Barriers

Internal and organizational dynamics further stifled adoption. Within REI, incentive structures were misaligned. Sales commissions were based on total revenue, irrespective of the sales channel. Consequently, sales personnel, who are key change agents, was not motivated to migrate clients online and perceived doing so as a risk to their relationship-based sales model. This nullified the *social influence* and *facilitating conditions* (Venkatesh et al., 2003) necessary for behavioural change within the provider organization.

Externally, capability gaps were stark. SMEs reported high *effort expectancy* due to limited digital literacy and lack of dedicated IT support. *"We are experts in making*

components, not in using software. The platform looks complex, and if we make a mistake, it could stop our production line," explained a production manager from a small machining workshop. Large enterprises, while resource-rich, faced high *complexity* in integrating the platform with legacy ERP systems like SAP, creating significant onboarding delays.

3.2 Divergent Barriers: A Comparative Analysis of SMEs and Large Enterprises

The research identified a critical divergence in primary barriers faced by SMEs and large enterprises, necessitating distinct strategic responses.

3.2.1 SME Adoption Challenges: Capability and Resource Constraints

For SMEs, barriers were predominantly rooted in **resource limitations and high perceived risk**. Their resistance was less about strategic incompatibility and more about operational survival. Challenges included:

- **High Effort Expectancy:** Low digital literacy made the platform seem intimidating.
- **Weak Facilitating Conditions:** Unreliable internet in some industrial estates and a lack of in-house technical support.
- **Low Trialability:** Inability to experiment with the platform on non-critical orders due to thin operational margins.

As summarized in Table 1, the SME experience was defined by a struggle with the basic usability and support for the technology.

Table 2. ***Primary Adoption Barriers for SMEs versus Large Enterprises***

Barrier Dimension	Small and Medium Enterprises (SMEs)	Large Enterprises
Core Nature of Barrier	Operational, resource-constrained, risk-averse	Strategic, governance-focused, integration-complexity
Key Theoretical Constructs	UTAUT: High Effort Expectancy, Poor Facilitating Conditions; DOI: High Complexity, Low Trialability	DOI: Low Compatibility; Institutional Theory: Isomorphic Pressures, Legitimacy
Primary Fears	System complexity, making costly errors, disruption to daily workflow	Loss of negotiation control, ERP integration costs, deviation from internal governance
Adoption Trigger Needed	Simplified interface, hands-on training, clear immediate benefit (e.g., faster payment)	Strategic mandate from leadership, seamless ERP integration, customizable approval workflows

3.2.2 Large Enterprise Adoption Challenges: Strategic and Systemic Incompatibility

For large firms, barriers were **strategic and systemic**. Their concerns centered on governance, control, and alignment with complex existing systems.

- **Low Compatibility:** The platform's standardized process conflicted with multi-layered, bespoke internal approval workflows.
- **Integration Complexity:** The technical and bureaucratic challenge of API integration with monolithic ERP systems was a major hurdle. An IT director noted, *"Onboarding isn't a click. It's a 6-month project involving security, compliance, and change management for hundreds of users."*
- **Institutional Isomorphism:** A tendency to follow industry leaders meant adoption would only accelerate if key competitors or major buyers mandated it.

Thus, while SMEs were blocked by a lack of capacity, large enterprises were stalled by strategic calculation and systemic inertia.

3.3 Theoretical Discussion and Implications

This study examined the persistent gap between the availability of a digital procurement platform and its limited adoption in Indonesia's manufacturing sector. Using an in-depth case study of PT. Riyadi Emart Indonesia (REI) and an integrated framework based on Diffusion of Innovation (DOI), Unified Theory of Acceptance and Use of Technology (UTAUT), and Institutional Theory, the findings move beyond technical explanations to uncover the socio-technical dynamics underlying adoption resistance (Rogers, 2003; Venkatesh et al., 2003; Scott, 2014).

The analysis extends Institutional Theory by identifying **institutional optionality** as a key mechanism sustaining the status quo. In the absence of coercive regulation or strong normative pressures, digital procurement remains a legitimate option rather than an obligation. This optionality enables firms to acknowledge the platform's potential benefits while continuously deferring adoption, demonstrating that the absence of institutional pressure can be as structurally influential as its presence in shaping organizational behavior (DiMaggio & Powell, 1983; Scott, 2014).

The findings also refine the DOI construct of **compatibility**. Resistance was driven not only by misalignment with existing procedures but by deeper cultural and relational incompatibility. In relationship-oriented B2B contexts, procurement decisions are embedded in interpersonal trust and long-standing social ties, rendering efficiency-oriented digital platforms symbolically misaligned. Compatibility should therefore be understood as cultural-relational alignment rather than purely functional fit (Rogers, 2003).

UTAUT constructs are shown to be strongly context-dependent. For SMEs, **effort expectancy** extends beyond usability concerns to include digital literacy anxiety, perceived disruption risks, and limited support capacity. For large enterprises, **facilitating conditions** relate primarily to system integration readiness, governance structures, and executive sponsorship. This confirms that technology acceptance

constructs are interpreted through organizational scale, resources, and structural capability (Venkatesh et al., 2003; Venkatesh et al., 2012).

Together, these factors explain the persistent state of partial adoption observed at REI. Rather than representing a transitional phase, partial adoption constitutes a stable equilibrium shaped by institutional optionality, cultural-cognitive norms, organizational misalignments, and platform complexity. The integrated framework clarifies why adoption remains limited despite clear technological advantages.

This study contributes theoretically by demonstrating the value of a multi-level framework for explaining digital adoption in relationship-driven emerging market contexts. Practically, it underscores that digital procurement is fundamentally a change management challenge rather than a technical one, requiring differentiated strategies for SMEs and large enterprises. While limited by its single-case design, the study provides a foundation for future quantitative and longitudinal research. Ultimately, effective digital transformation requires addressing the institutional, cultural, and organizational contexts in which technology is embedded.

4. CONCLUSION

This This study investigated the persistent gap between the availability of a sophisticated digital procurement platform and its limited adoption within Indonesia's manufacturing sector. Through an in-depth case study of PT. Riyadi Emart Indonesia (REI) and an integrated DOI-UTAUT-Institutional Theory lens, the research moved beyond technical explanations to uncover the socio-technical roots of resistance.

The findings demonstrate that low adoption is a systemic issue. Digital procurement suffers from **institutional optionality**, lacking the coercive or normative pressure needed to challenge entrenched practices. **Culturally**, its impersonal logic clashes with a procurement schema built on relational trust, creating a profound compatibility problem. **Organizationally**, misaligned incentives and capability gaps further stifle change. Critically, barriers diverge by firm size: SMEs face operational hurdles (high effort expectancy), while large enterprises confront strategic and systemic barriers (low compatibility, integration complexity).

The primary **theoretical contribution** is demonstrating how a multi-level framework provides a more complete explanation of adoption in relationship-driven contexts. It extends theory by conceptualizing institutional optionality as a key barrier and reconceptualizing compatibility as cultural-relational alignment.

For **practitioners**, this underscores that digital transformation is foremost a change management challenge. Success requires a segmented, multi-pronged strategy: building institutional legitimacy, redesigning internal incentives, and adapting platform design to respect cultural norms. Interventions must differ, offering SMEs

simplicity and support, while providing large firms with integration and governance alignment.

This study's limitations, including its single-case design, suggest avenues for **future research**, such as quantitative validation of the framework across a larger sample and longitudinal studies on adoption evolution. Ultimately, bridging the adoption gap in markets like Indonesia requires understanding that technology is adopted within an ecosystem of relationships and norms. Addressing these human and systemic dimensions with rigor is essential for making digital procurement a sustainable competitive capability.

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