

**AI ENABLED BUSINESS TRANSFORMATION IN INCUMBENT FIRMS: FROM OPERATIONAL ADOPTION TO STRATEGIC BUSINESS MODEL RENEWAL****Arjun Chaturvedi****ABSTRACT**

Artificial intelligence (AI) is increasingly deployed by incumbent firms to automate processes, optimize operations, and enhance decision-making. Yet, evidence suggests that operational AI adoption rarely translates on its own into lasting competitive advantage. This article examines how established businesses move beyond narrow, efficiency-oriented AI use toward strategic business model renewal. Drawing on dynamic capabilities theory and business model innovation theory, the article develops a conceptual framework linking AI adoption, organizational capabilities, and business model transformation to new mechanisms of value creation and value capture. The review synthesizes recent literature on AI-enabled business model innovation in industrial ecosystems, highlighting the organizational, technological, and strategic conditions under which incumbents convert AI investment into renewal rather than incremental efficiency gains. The discussion identifies persistent barriers organizational inertia, legacy infrastructure, capability gaps, and strategic misalignment that constrain transformation, and it offers managerial implications for firms seeking to align AI initiatives with long-term strategic objectives. The article contributes a synthesis that connects operational and strategic perspectives on AI in incumbent firms and proposes directions for future empirical research.

**Keywords:**

Artificial intelligence, Business model innovation, Dynamic capabilities, Digital transformation, Incumbent firms, Value creation, Strategic renewal

**1. INTRODUCTION****1.1 Background of the Study**

In traditional industries, AI has evolved beyond niche technical tools and is becoming a part of the organizational fabric. Machine learning, predictive analytics, and intelligent automation are becoming more common in manufacturing, banking, healthcare, and retail businesses, as well as in logistics firms, to boost efficiency and decrease costs (Vial, 2019). It has added even more competitive pressure on established organizations whose models are based on traditional ideas of production, distribution and customer relationships, which were developed during the industrial era.

There is an increasing amount of research on the different qualitative uses of AI in already existing companies. First is operational adoption, where AI is used in existing processes but without changing the business model, such as: Automation of tasks, prediction of needs and/or improvement of service response time (Sjödin et al., 2021). The second is strategic transformation, meaning that AI transforms the way a company generates, provides and captures value, sometimes in the creation of new products and services or revenue streams (Burström et al., 2021). The difference is important because the superior value creation that is often seen as the hallmark of AI differentiation, new markets, and competitive advantage – is dependent on the latter, rather than the former.

**1.2 Problem Statement**

While there is significant investment in AI projects, a large portion of existing companies report that these projects have limited their applications to efficiency gains and lack innovation in the business model (Black et al., 2024). While adoption alone is not enough to create new value or competitive advantage, complementary organizational change is required for AI to deliver new ways of competing rather than new inefficiencies. However, firms often do not manage to convert the technical capability into strategy renewal due to legacy systems, established processes, and organizational inertia (Haftor & Climent Costa, 2023). Therefore, understanding the conditions to which the adoption of AI leads to transformation of business models is an urgent research and practice question. The issue is that, currently, incumbent companies tend to consider the use of AI in the context of current performance measures such as cost saving or process throughput, and not measure it in terms of new value creation. Consequently, the projects are often approved and evaluated in ways that are operationally framed and dissuade the longer time frames and experimentation necessary for business model renewal. This disconnect between technology and strategy isn't just about not having the technology—it's about organizational structures, incentives, and mental models that are built for a pre-AI competitive landscape.

### 1.3 Research Objectives

The aim of this article is threefold: first, to understand how AI can become part of a business model transformation in incumbent organizations; second, to uncover the mechanisms by which value is created and captured using AI in established organizations; and third, to unearth the organizational capabilities and hurdles that contribute to the outcomes of business model renewal.

### 1.4 Research Questions

How the adoption of AI in the operations becomes a business model renewal in incumbent firms? (2) How do incumbent firms uncover the value of AI in their operations? (3) How can AI be used to revive business models in incumbent firms? How incumbent firms discover the value of AI in their operations? (2) How AI can be used to revive business models in incumbent firms? (2) What are the organizational capacities for value creation and value capture with the help of AI? (3) What are the obstacles to the strategic transformation of existing businesses?

### 1.5 The purpose of this study is to examine the significance of the study.

Theoretically, the article connects the two theories, AI adoption theory and the business model innovation theory, which is not adequately done in the literature (Foss & Saebi, 2017). From a managerial perspective, it provides insights for leaders aiming to go beyond pilot projects and implement AI at the business level. Furthermore, it contributes to the current body of literature on digital transformation in well-established organisations by pinpointing the interface between AI and business (Warner & Wäger, 2019).

## 2. LITERATURE REVIEW

### 2.1 Artificial Intelligence and Business Transformation

AI-enabled business transformation refers to the process by which firms use AI technologies not merely to automate existing activities but to reconfigure how they operate and compete (Vial, 2019). This is distinct from AI adoption in a narrow sense, which denotes the implementation of AI tools within existing processes. The literature increasingly frames AI as an organizational capability rather than a discrete technology: its value depends on how it is embedded within decision-making structures, data infrastructure, and strategic planning (Sjödin et al., 2021). Firms that treat AI purely as a technical upgrade tend to realize efficiency gains but rarely achieve the deeper transformation associated with new value propositions.

Vial (2019) situates AI-enabled change within the broader concept of digital transformation, defined as a process in which digital technologies trigger significant changes to organizational properties through alterations to value creation paths. This framing highlights that transformation is a process unfolding over time rather than a discrete event tied to a single technology deployment. It also implies that resistance, unintended consequences, and organizational disruption are expected features of the transformation process rather than signs of implementation failure, a point with direct relevance for incumbent firms navigating AI-driven change.

### 2.2 Business Model Innovation

Business model innovation concerns deliberate changes to the core logic of how a firm creates, delivers, and captures value (Foss & Saebi, 2017). Four components are commonly identified: the value proposition offered to customers, the mechanisms of value creation and delivery, and the mechanisms of value capture through which the firm converts activity into revenue and profit. AI intersects with each component. It can generate new value propositions through personalization and intelligent functionality, reorganize value creation through automation and data-driven operations, and introduce new value capture mechanisms such as subscription or outcome-based pricing (AI-enabled business models for competitive advantage, 2024).

### 2.3 AI-Enabled Business Model Innovation in Industrial Ecosystems

Research on incumbent firms in industrial ecosystems provides some of the clearest evidence of AI-driven business model change. Burström et al. (2021) develop a framework showing how manufacturing incumbents use AI not only to optimize internal operations but to reposition themselves within broader industrial ecosystems, shifting from product-centric to service- and data-centric value propositions. Their work emphasizes that transformation is rarely confined to a single firm; it often involves reconfiguring relationships with suppliers, partners, and customers across an ecosystem. This ecosystem perspective is important for incumbents because their competitive position is frequently tied to established networks that must be renegotiated as AI enables new forms of value exchange.

A related contribution comes from Metzler et al. (2021), whose cross-industry case study finds that incumbent firms pursue AI-enabled business model innovation through varied pathways depending on industry structure, data availability, and existing customer relationships. Rather than a single dominant trajectory, their findings suggest that transformation is shaped by each firm's starting position within its ecosystem—firms with strong existing data assets and digital infrastructure tend to move more quickly toward service- and data-based value

propositions, while firms with weaker digital foundations tend to remain longer at the operational stage before ecosystem-level change becomes feasible.

#### 2.4 Dynamic Capabilities and Strategic Renewal

Dynamic capabilities theory offers a lens for understanding how firms convert AI investment into renewal. The theory distinguishes three capacities: sensing opportunities and threats in the environment, seizing those opportunities through resource allocation and strategic decisions, and transforming organizational structures and assets to sustain competitiveness (Teece, 2018). Applied to AI, sensing involves recognizing where AI can generate new value; seizing involves committing resources to AI-enabled initiatives; and transforming involves reorganizing capabilities, culture, and processes to support new business models. Sjödin et al. (2021) describe this as a co-evolutionary process, in which AI capabilities and business model innovation develop iteratively through feedback loops rather than as a single linear transition.

#### 2.5 AI-Enabled Value Creation and Value Capture

A recurring theme in the literature is that AI's strategic value depends on how firms translate technical capability into new revenue logic. This includes AI-powered products and services, data-driven business models in which data itself becomes a source of value, and ecosystem or platform strategies that extend a firm's value proposition beyond its traditional boundaries (AI-enabled business models for competitive advantage, 2024). These mechanisms typically require firms to move beyond cost-reduction framing and toward viewing AI as a source of differentiated value for customers and partners.

*Table 1-Summary of Key Literature Reviewed*

| Author(s) & Year                                            | Primary Focus                                                 | Key Contribution                                                                                           |
|-------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Burström et al. (2021)                                      | AI-enabled business model innovation in industrial ecosystems | Framework linking AI adoption to ecosystem-level business model transformation in manufacturing incumbents |
| Sjödin et al. (2021)                                        | Scaling AI capabilities                                       | Describes AI-business model co-evolution through iterative feedback loops                                  |
| Black et al. (2024)                                         | Barriers to AI-enabled transformation                         | Identifies factors underpinning the move beyond isolated AI 'proof points'                                 |
| Haftor & Climent Costa (2023)                               | Business model innovation in industrial incumbents            | Multi-case exploration of five dimensions of business model transformation                                 |
| AI-enabled business models for competitive advantage (2024) | Value creation and capture through AI                         | Examines how firms appropriate economic value from AI-enabled business models                              |
| Teece (2018)                                                | Dynamic capabilities theory                                   | Establishes sensing, seizing, and transforming as core capabilities for strategic renewal                  |
| Foss & Saebi (2017)                                         | Business model innovation research review                     | Synthesizes fifteen years of business model innovation scholarship                                         |
| Warner & Wäger (2019)                                       | Dynamic capabilities for digital transformation               | Explains how firms build capabilities for ongoing strategic renewal                                        |
| Vial (2019)                                                 | Digital transformation review                                 | Provides a definition and research agenda for digital transformation                                       |
| Metzler et al. (2021)                                       | AI-driven business model innovation, cross-industry           | Cross-industry case evidence on AI-enabled innovation pathways in incumbents                               |

#### 2.6 Research Gap

While the literature separately addresses AI adoption, business model innovation, and dynamic capabilities, fewer studies integrate these strands to explain the specific transition from operational AI use to strategic business model renewal in incumbent firms. Black et al. (2024) note that much of the existing evidence remains anchored in isolated "proof points" individual pilots or use cases—rather than a systematic account of how firms scale AI into enterprise-wide transformation. This article addresses that gap by proposing an integrated conceptual framework and synthesizing evidence on the organizational conditions that support or hinder the transition.

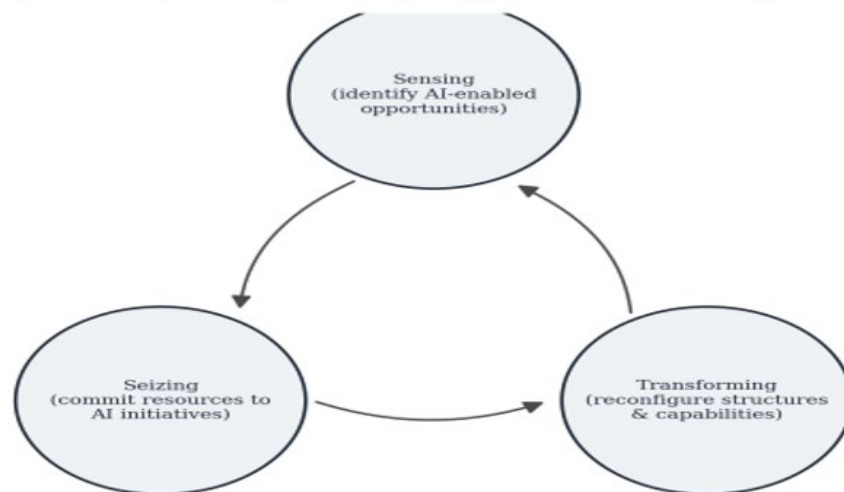
A further gap concerns the relative neglect of value capture in the AI literature compared with value creation. Many studies emphasize how AI generates new products, services, or customer experiences, but fewer examine systematically how incumbent firms restructure revenue models to capture the value these innovations generate. Since business model innovation by definition requires change in both creation and capture mechanisms, an integrated perspective that treats these as jointly evolving—rather than sequential or independent represents a needed contribution, one this article aims to advance through its conceptual framework.

### 3. THEORETICAL FRAMEWORK

#### 3.1 Dynamic Capabilities Theory

Dynamic capabilities theory explains how firms adapt resources and routines in response to technological and environmental change (Teece, 2018). For incumbent firms facing AI-driven disruption, the theory is particularly relevant because it addresses not only the acquisition of new technology but the organizational reconfiguration required to exploit it. Sensing capabilities allow firms to identify where AI can create value within their industry context; seizing capabilities determine whether firms commit sufficient resources and leadership attention to AI initiatives; and transforming capabilities determine whether the organization can reorganize structures, incentives, and culture to sustain AI-enabled changes over time.

*Figure 2 The Dynamic Capabilities Cycle Applied to AI-Enabled Transformation*



Note. Adapted conceptually from Teece's (2018) sensing, seizing, and transforming framework as applied to AI-driven organizational change.

#### 3.2 Business Model Innovation Theory

Business model innovation theory provides the vocabulary for describing what changes when AI reshapes a firm's strategy. AI can alter the value proposition by enabling personalized or intelligent offerings; it can alter value creation and delivery through automation, smart manufacturing, and platform-based operations; and it can alter value capture through new pricing and revenue mechanisms such as subscription models or outcome-based contracts (Foss & Saebi, 2017). Together, these components describe the substantive content of business model renewal, distinguishing it from mere process automation.

#### 3.3 Integration of the Theories

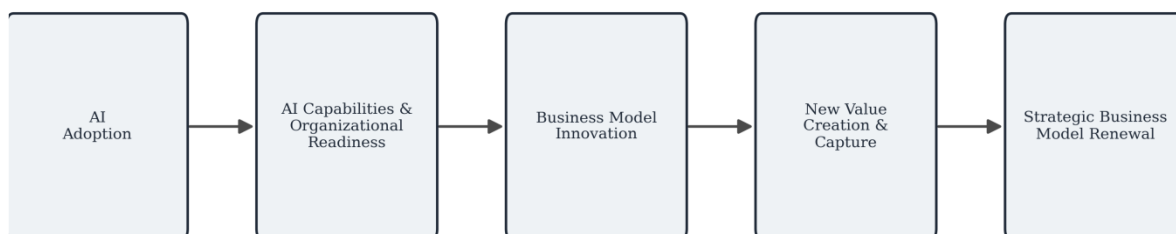
The two theoretical traditions are complementary rather than competing. Dynamic capabilities theory explains the organizational process by which firms move from AI adoption to transformation, while business model innovation theory specifies the strategic outcome of that process. Integrating them suggests that dynamic capabilities function as the mechanism converting AI investment into business model change, and that the resulting change can be assessed against the four components of the business model (Warner & Wäger, 2019).

#### 3.4 Conceptual Framework

The conceptual framework proposed in this article links five stages: AI adoption; AI capabilities and organizational readiness; business model innovation; new value creation and value capture; and strategic business model renewal. Each stage builds on the prior one, with dynamic capabilities operating as the connective mechanism between technical adoption and strategic outcome. Firms that stall at the first stage treating AI purely as an operational tool—are unlikely to progress toward the value creation and capture outcomes associated with renewal.

The framework is intentionally represented as a progression rather than a strict linear sequence, since feedback loops observed in the literature suggest that early business model experiments can, in turn, generate new sensing opportunities that refine subsequent AI investment (Sjödin et al., 2021). In this sense, the five stages describe a cycle of mutual reinforcement between technological capability and strategic renewal, rather than a one-time transition that firms complete and then leave behind.

**Figure 1- Conceptual Framework Linking AI Adoption to Strategic Business Model Renewal**



*Note. The framework depicts the proposed progression from operational AI adoption to strategic renewal, with dynamic capabilities acting as the connective mechanism between stages.*

### 3.5 Theoretical Propositions

Three propositions follow from the framework. First, AI capabilities positively support business model innovation when they are embedded in organizational decision-making rather than isolated within technical functions. Second, dynamic capabilities—particularly sensing and transforming—facilitate the conversion of AI investment into strategic renewal. Third, organizational readiness and leadership commitment moderate the relationship between AI adoption and business model transformation, such that firms with stronger readiness convert adoption into renewal more consistently (Haftor & Climent Costa, 2023).

## 4. METHODOLOGY

### 4.1 Research Design

This article adopts a structured literature review and conceptual research design. Rather than collecting primary data, it synthesizes existing peer-reviewed scholarship on AI, business model innovation, and dynamic capabilities to develop an integrated conceptual account of how incumbent firms transition from operational AI adoption to strategic transformation. A conceptual approach is appropriate given the article's aim of theoretical integration rather than empirical hypothesis testing.

### 4.2 Literature Search Strategy

Literature was identified through Scopus, Web of Science, Google Scholar, and publisher databases including ScienceDirect. Search terms included combinations of "AI adoption," "artificial intelligence," "business model innovation," "digital transformation," "incumbent firms," "dynamic capabilities," and "strategic renewal."

### 4.3 Inclusion and Exclusion Criteria

Sources were included if they were peer-reviewed scholarly publications addressing AI, business model innovation, or organizational transformation in established firms. Priority was given to research published between 2020 and 2026, supplemented by foundational theoretical works on dynamic capabilities and business model innovation that remain widely cited in current scholarship.

### 4.4 Data Synthesis and Analysis

The reviewed literature was analyzed thematically, with particular attention to recurring patterns involving operational AI adoption, organizational capabilities, value creation and capture mechanisms, and barriers to strategic renewal. These themes informed the structure of the conceptual framework presented in this article. Sources were grouped according to which stage of the AI-to-renewal transition they primarily addressed, allowing

patterns across studies to be compared even where individual articles used different terminology or theoretical starting points.

#### 4.5 Research Limitations

As a literature-based conceptual article, this study does not generate new empirical data and depends on the scope and quality of existing publications. Findings drawn from specific industries, particularly manufacturing, may not generalize evenly across all incumbent sectors, and organizational context is likely to shape how the proposed framework applies in practice.

### 5. AI ADOPTION IN INCUMBENT FIRMS: FROM OPERATIONAL EFFICIENCY TO STRATEGIC TRANSFORMATION

#### 5.1 Operational AI Adoption

Operational AI adoption typically begins with well-defined, bounded use cases: automation of routine administrative processes, predictive maintenance in manufacturing operations, supply chain optimization, and AI-supported customer service and analytics (Sjödin et al., 2021). These applications are attractive to incumbent firms because they promise measurable efficiency gains with relatively contained organizational disruption, and they can typically be layered onto existing infrastructure without requiring a redesign of the business model.

#### 5.2 Limitations of Operational Adoption

However, operational adoption has structural limitations. AI projects often remain isolated within individual departments rather than integrated across the organization. Legacy infrastructure constrains data availability and interoperability, making it difficult to scale successful pilots beyond their original context. Black et al. (2024) describe this as the challenge of moving beyond "proof points"—firms accumulate isolated successes without a pathway to enterprise-wide strategic integration.

This pattern is reinforced by how AI projects are typically governed within incumbent organizations. Departmental ownership of AI initiatives can create competition for resources and misaligned priorities across business units, while the absence of an enterprise-level AI strategy means that successful applications in one function are not systematically transferred to others. The result is a portfolio of disconnected efficiency gains rather than a coherent trajectory toward business model change.

**Table 2- Operational AI Adoption Versus Strategic Business Model Transformation**

| Dimension                  | Operational AI Adoption       | Strategic Business Model Transformation                    |
|----------------------------|-------------------------------|------------------------------------------------------------|
| Primary aim                | Efficiency and cost reduction | New value creation and value capture                       |
| Scope                      | Departmental or process-level | Enterprise-wide and ecosystem-level                        |
| Data use                   | Supports existing processes   | Becomes a source of value in itself                        |
| Customer relationship      | Largely unchanged             | Reconfigured through personalization and new offerings     |
| Revenue model              | Unchanged transactional model | New mechanisms (e.g., subscription, outcome-based pricing) |
| Organizational requirement | Technical implementation      | Dynamic capabilities, leadership, and governance           |
| Typical outcome            | Incremental efficiency gains  | Competitive differentiation and long-term renewal          |

#### 5.3 Organizational Readiness and AI Capabilities

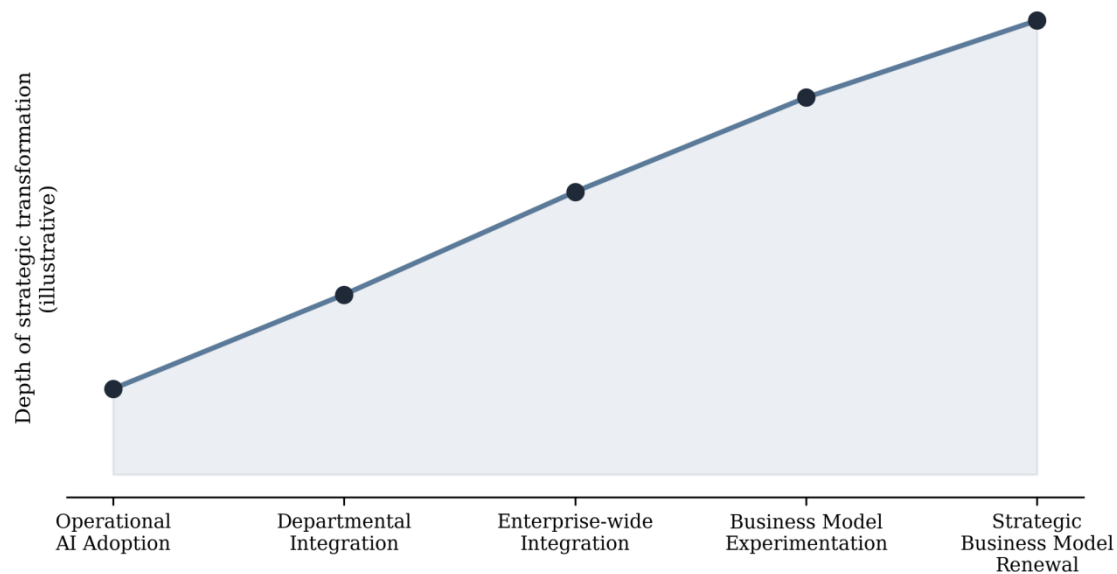
Progression toward strategic transformation depends on organizational readiness across several dimensions: data infrastructure capable of supporting advanced analytics; digital skills among employees and managers; leadership commitment to sustained investment; formal AI governance structures; and cross-functional collaboration that connects technical teams with business strategy (Warner & Wäger, 2019). Firms lacking these foundations tend to remain at the operational stage regardless of the sophistication of their AI tools.

#### 5.4 Transition Toward Strategic Transformation

Where readiness conditions are met, AI can become integrated into core business strategy rather than confined to efficiency projects. This integration is typically visible in the emergence of new products and services, changes

in how firms manage customer relationships, and the development of new business models that extend beyond the firm's traditional value proposition (Burström et al., 2021). The transition is rarely abrupt; it more often unfolds as an iterative process in which early operational successes build organizational confidence and capability that support subsequent, more ambitious initiatives.

**Figure 5-Illustrative Maturity Progression from Operational AI Adoption to Strategic Renewal**



### 5.5 Role of Organizational Leadership

Leadership plays a decisive role in this transition. Strategic vision determines whether AI is framed as a cost-reduction tool or a transformation driver; investment decisions determine whether resources extend beyond pilot projects; and change management capability determines whether organizational resistance can be overcome (Teece, 2018). Firms that combine technical AI capability with sustained leadership commitment are more likely to progress from operational adoption to strategic renewal.

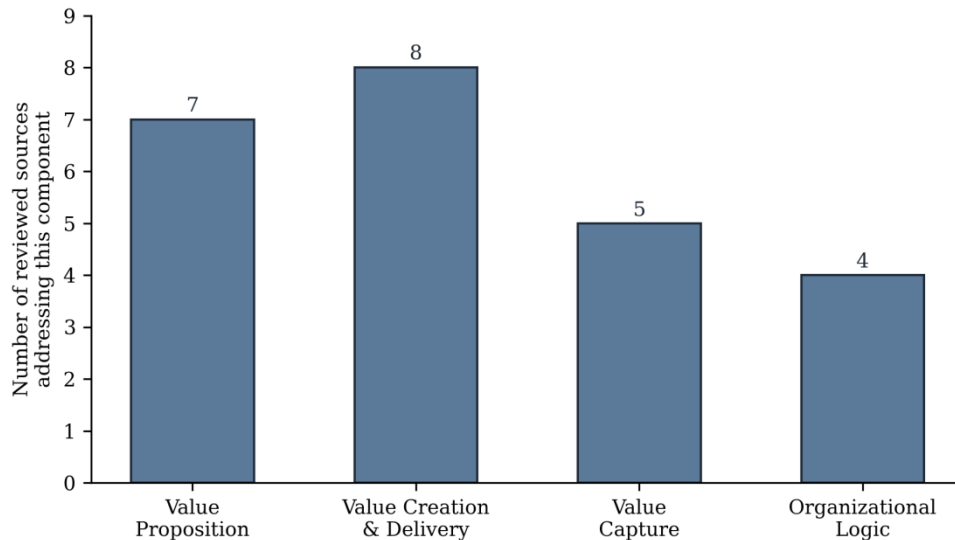
## 6. AI-ENABLED BUSINESS MODEL RENEWAL AND NEW VALUE CREATION

### 6.1 AI-Driven Value Proposition Innovation

AI enables incumbent firms to reshape their value propositions through personalization, intelligent product functionality, and improved customer experience. Rather than offering standardized products, firms can use AI to tailor offerings to individual customer needs, embed intelligent features into existing products, and use predictive insight to anticipate customer requirements before they are explicitly expressed (AI-enabled business models for competitive advantage, 2024).

### 6.2 Transformation of Value Creation and Delivery

Beyond the value proposition, AI reshapes how value is created and delivered. Smart manufacturing systems use AI to optimize production in real time; digital platforms coordinate activity across internal functions and external partners; and ecosystem partnerships allow firms to combine their own capabilities with those of technology providers and complementary businesses (Burström et al., 2021). Data-driven decision-making becomes a central organizational competency, informing not only operations but broader strategic choices.

**Figure 3-Emphasis on Business Model Components Across the Reviewed Literature**

### 6.3 New Value Capture Mechanisms

Business model renewal is most visible in new value capture mechanisms. Incumbent firms increasingly experiment with subscription-based pricing, AI-as-a-service offerings, data-enabled revenue streams, outcome-based pricing tied to measurable performance, and platform or ecosystem monetization strategies (AI-enabled business models for competitive advantage, 2024). These mechanisms represent a departure from traditional transactional sales models and often require firms to renegotiate relationships with customers accustomed to one-time purchases.

The shift toward these mechanisms is rarely straightforward for incumbents. Recurring-revenue and outcome-based models typically require firms to absorb greater performance risk than transactional sales, since payment becomes contingent on measurable results rather than delivery alone. This shift also has implications for internal functions such as finance, sales, and customer support, which must adapt processes designed around one-time transactions to ongoing relationship management. Firms that succeed in this transition often do so incrementally, piloting new pricing models alongside existing ones before fully committing to a revised revenue architecture.

**Table 3-AI-Enabled Value Capture Mechanisms and Illustrative Examples**

| Mechanism                         | Description                                                                  | Illustrative Sector Example                   |
|-----------------------------------|------------------------------------------------------------------------------|-----------------------------------------------|
| Subscription-based pricing        | Recurring payment for continued access to an AI-enhanced product or service  | Software and connected-equipment providers    |
| AI-as-a-service                   | AI capability offered as a standalone service to other organizations         | Cloud and enterprise technology providers     |
| Data-enabled revenue              | Monetization of proprietary data assets or data-derived insights             | Retail and logistics analytics                |
| Outcome-based pricing             | Payment tied to measurable performance or results rather than delivery       | Industrial equipment and maintenance services |
| Platform / ecosystem monetization | Revenue captured through coordinating multiple partners on a shared platform | Manufacturing and industrial ecosystems       |

### 6.4 Incumbent Firms and Business Model Renewal

Incumbent firms possess distinct advantages and constraints in pursuing business model renewal. They can leverage existing assets, established customer relationships, and brand trust, combining these legacy strengths with new AI capabilities (Haftor & Climent Costa, 2023). At the same time, they must manage the tension between

protecting existing revenue models and pursuing new opportunities that may cannibalize established business lines, a tension that is less pronounced for new market entrants without legacy commitments.

Haftor and Climent Costa (2023) identify five dimensions along which incumbent business models are typically transformed: the value proposition offered, the way value is created, the way value is delivered, the way value is captured, and the underlying organizational logic that connects these elements. Their multi-case analysis of industrial incumbents suggests that firms rarely transform all five dimensions simultaneously; instead, renewal tends to proceed unevenly, with certain dimensions—often the value proposition—changing well before corresponding shifts in value capture or organizational logic are fully realized. This unevenness helps explain why many incumbent firms appear to be innovating on the surface while their underlying revenue architecture remains largely unchanged.

### 6.5 Strategic Implications

Successful business model renewal carries several strategic implications: it can produce competitive differentiation in mature markets, strengthen customer retention through more personalized and responsive offerings, open opportunities for market expansion into adjacent segments, and support long-term business sustainability by diversifying revenue beyond traditional product sales (Vial, 2019).

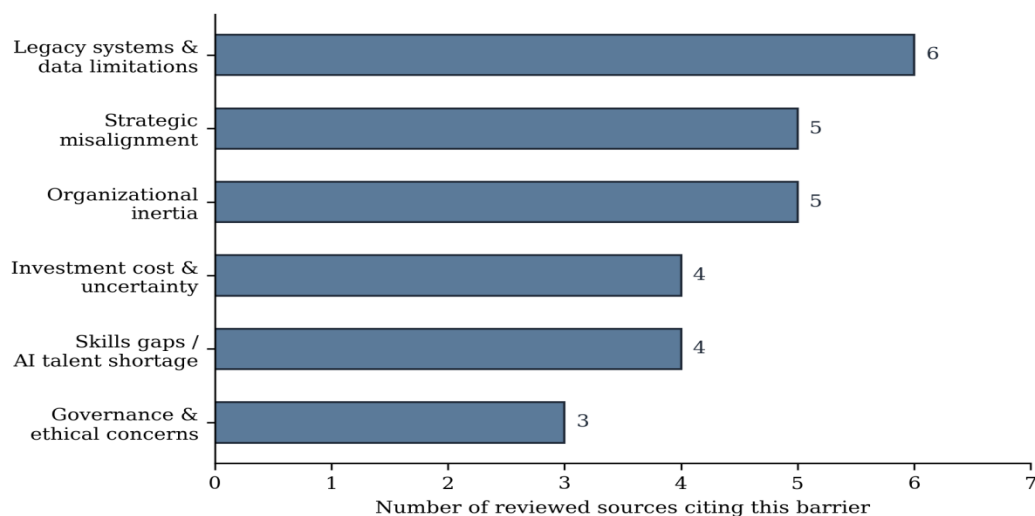
## 7. BARRIERS, RISKS, AND ORGANIZATIONAL CHALLENGES

Several barriers consistently limit incumbent firms' ability to translate AI adoption into strategic renewal. Organizational inertia the tendency of established routines and structures to resist change remains one of the most frequently cited obstacles (Haftor & Climent Costa, 2023). Legacy systems and fragmented data limit the interoperability required for enterprise-wide AI applications, while shortages of AI talent and broader digital skills constrain implementation capacity (Warner & Wäger, 2019).

Leadership, governance, and ethical concerns present further challenges: firms must establish accountability for AI-driven decisions and address concerns about data privacy, bias, and transparency, particularly as AI applications move closer to customer-facing and strategic decisions. AI investment costs and the uncertainty of returns can deter sustained commitment, especially when early projects fail to demonstrate clear financial impact (Black et al., 2024). Finally, strategic misalignment—AI projects that do not support broader business objectives—can result in technically successful initiatives that nonetheless fail to advance the firm's competitive position, reflecting a persistent difficulty in balancing short-term operational benefits with longer-term transformation goals (Sjödin et al., 2021).

These barriers rarely operate independently. Skills gaps often compound legacy infrastructure problems, since firms lacking digital talent are also less able to modernize data systems; weak governance can, in turn, slow investment as leaders hesitate to scale initiatives they cannot adequately oversee. Recognizing these barriers as interrelated rather than isolated obstacles has implications for how incumbent firms sequence their transformation efforts, suggesting that addressing foundational capability gaps—data infrastructure and talent in particular may be a prerequisite for resolving downstream governance and alignment challenges.

**Figure 4-Barriers to AI-Enabled Strategic Transformation Identified in the Reviewed Literature**



## 8. DISCUSSION AND MANAGERIAL IMPLICATIONS

### 8.1 Discussion of Key Findings

The literature reviewed in this article converges on a central conclusion: AI adoption alone is insufficient to produce business model renewal in incumbent firms. Organizational capabilities spanning data infrastructure, leadership, governance, and cross-functional collaboration are central to converting technical capability into strategic outcomes. Moreover, value creation and value capture must evolve together; firms that innovate their offerings without corresponding changes to revenue mechanisms, or vice versa, are unlikely to achieve durable transformation (Foss & Saebi, 2017).

A second finding concerns the uneven pace of transformation across the components of the business model, consistent with the multi-dimensional view of renewal discussed earlier. This unevenness suggests that assessing transformation solely by the presence of new AI-enabled products or services can overstate the degree of genuine business model change, since value proposition innovation may not be accompanied by corresponding change in value capture or organizational logic. A more complete assessment requires examining all dimensions of the business model together.

### 8.2 Theoretical Implications

The proposed framework contributes to dynamic capabilities theory by specifying how sensing, seizing, and transforming operate in the specific context of AI-driven change, and it contributes to business model innovation research by clarifying how AI intersects with each component of the business model. Together, these contributions position AI as a strategic transformation mechanism rather than a purely technical intervention (Teece, 2018).

### 8.3 Managerial Implications

For practitioners, the analysis suggests several priorities: developing an enterprise-wide AI strategy rather than isolated departmental initiatives; investing in data infrastructure and broader organizational capabilities alongside AI tools; explicitly aligning AI initiatives with business model objectives rather than treating them as cost-reduction projects; building cross-functional transformation teams that connect technical and strategic functions; experimenting deliberately with new AI-enabled revenue models; and establishing governance structures that address ethical and regulatory considerations as AI applications scale.

### 8.4 Implications for Incumbent Industries

These implications apply across a range of traditional sectors. In manufacturing, AI supports the shift toward smart production and service-based offerings; in banking, AI enables personalized financial products and new risk-based pricing; in healthcare, AI supports predictive and personalized care models; in retail, AI reshapes customer experience and supply chain responsiveness; and in logistics, AI enables dynamic optimization of complex networks (Metzler et al., 2021). Across these contexts, the underlying pattern remains consistent: sustained transformation depends on organizational capability development alongside technical adoption.

Notwithstanding these shared patterns, the pace and form of transformation differ by sector according to regulatory intensity, data sensitivity, and the structure of customer relationships. Highly regulated sectors such as banking and healthcare face additional governance requirements that can slow the adoption of new AI-enabled revenue models, even when the underlying technical capability is mature. Sectors with more direct, high-frequency customer interaction, such as retail, may find personalization-driven value propositions easier to implement than fundamental changes to revenue architecture. Recognizing these sectoral differences is important for managers seeking to benchmark their own transformation efforts against firms in other industries.

## 9. CONCLUSION

This article has examined how incumbent firms move from operational AI adoption toward strategic business model renewal. The central argument is that AI's strategic value extends well beyond automation and efficiency gains: it depends on organizational capabilities that convert technical adoption into new mechanisms of value creation and value capture. Dynamic capabilities sensing, seizing, and transforming provide the connective process linking AI investment to business model innovation, while organizational readiness and leadership commitment determine whether firms progress along this path or remain confined to isolated efficiency projects. Persistent barriers, including legacy infrastructure, skills gaps, and strategic misalignment, mean that transformation is neither automatic nor guaranteed.

The conceptual framework developed here linking AI adoption, organizational capabilities, business model innovation, and strategic renewal offers a starting point for both scholars and managers seeking a more integrated view of AI's strategic role in established organizations. Future research should pursue empirical validation of the framework across diverse industries, examine how ecosystem relationships shape the pace and direction of AI-enabled renewal, and explore how governance and ethical considerations influence long-term transformation outcomes. As AI capabilities continue to mature, the distinction between operational adoption and strategic

renewal is likely to remain a defining line between incumbent firms that merely keep pace with technological change and those that use it to redefine their competitive position.

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