



## Legitimizing AI-Driven Business Model Innovation: An Institutional Perspective on Governance and Compliance

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### Abstrak

*Artificial intelligence is rapidly transforming organizational business models by enabling data-driven value creation, automated decision processes, and intelligent service ecosystems. Despite growing research on AI-driven business model innovation, existing studies primarily emphasize technological capabilities and organizational resources while giving limited attention to the institutional conditions shaping the acceptance and sustainability of AI-enabled innovations. This article addresses that gap by developing a mechanism-based conceptual framework explaining how institutional pressures influence the legitimacy and viability of AI-driven business model innovation. Drawing on institutional theory, responsible AI governance research, and business model innovation literature, the study conceptualizes governance as the organizational mechanism through which firms translate institutional expectations into legitimate AI-enabled value architectures. The framework proposes a sequential process in which institutional pressures shape AI governance practices, governance practices generate cognitive, moral, and pragmatic legitimacy, and legitimacy enables the implementation, stabilization, and diffusion of AI-driven business model innovation outcomes. By integrating previously fragmented research streams, the article contributes a theoretically grounded explanation of how organizations align technological innovation with institutional expectations. The framework offers a foundation for future empirical research examining how governance and legitimacy mechanisms shape the evolution and scalability of AI-enabled business models across institutional contexts.*

### Keywords

AI-driven business model innovation; institutional theory; organizational legitimacy; responsible AI governance; governance mechanisms; artificial intelligence strategy

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# 1. Introduction

Artificial intelligence (AI) is rapidly transforming how organizations create, deliver, and capture value. Across industries including finance, healthcare, digital platforms, and manufacturing, AI technologies increasingly shape core processes such as decision making, predictive analytics, and customer interaction systems. These developments are reshaping business model architectures by enabling data-driven value propositions, automated operations, and scalable digital ecosystems. AI is therefore widely recognized as a general-purpose technology capable of reshaping strategic innovation and organizational design (Brynjolfsson & McAfee, 2014; Dwivedi *et al.*, 2023). Within this transformation, AI-driven business model innovation (AI-BMI) represents a shift in which algorithms, data infrastructures, and intelligent systems become central mechanisms of value creation and capture (Jorzik *et al.*, 2024).

Growing interest in AI-enabled transformation has stimulated extensive research examining the relationship between artificial intelligence and business model innovation. The business model innovation literature emphasizes that firms sustain competitive advantage by continuously reconfiguring value propositions, delivery systems, and value capture mechanisms (Teece, 2010; Foss & Saebi, 2017). Recent studies show that digital technologies, particularly AI, enable new forms of data-driven value creation and service innovation (Sjödin *et al.*, 2023). Parallel research in digital innovation and information systems demonstrates how algorithmic capabilities redesign decision processes, automate customer interaction, and support intelligent service ecosystems (Brynjolfsson *et al.*, 2021). These perspectives collectively position AI as a strategic resource shaping the evolution of organizational capabilities and business models.

Research on AI-driven business model innovation has expanded rapidly during the past five years as AI adoption spreads across organizational contexts. Systematic reviews show that AI enables firms to redesign value creation processes through predictive analytics, algorithmic decision systems, and data monetization strategies (Jorzik *et al.*, 2024). Empirical studies further demonstrate how AI capabilities support digital servitization and ecosystem-based value creation by integrating data, analytics, and services into new business model configurations (Sjödin *et al.*, 2023). The emergence of generative AI and large-scale machine learning systems has intensified scholarly attention to algorithmic personalization, platform-based services, and autonomous decision systems (Dwivedi *et al.*, 2023). These developments indicate that AI-driven innovation reshapes the underlying logic of value creation rather than merely improving operational efficiency.

Despite these advances, the literature remains conceptually fragmented regarding the conditions under which AI-driven business model innovation becomes viable and sustainable. Existing research primarily examines technological capabilities, data infrastructures, and organizational resources that enable firms to adopt AI and redesign business models (Sjödin *et al.*, 2023; Jorzik *et al.*, 2024). This perspective treats AI implementation largely as a strategic or technological challenge while giving limited attention to the institutional environments in which AI-driven innovation unfolds. At the same time, research on responsible AI governance emphasizes ethical principles, transparency, and accountability in algorithmic systems (Papagiannidis *et al.*, 2025). However, this stream typically approaches governance as a mechanism for mitigating technological risks rather than as a factor shaping the legitimacy and viability of AI-driven business models.

This fragmentation reveals a deeper theoretical gap concerning the relationship between institutional pressures, governance practices, and business model innovation in AI contexts. Institutional theory suggests that organizations align with prevailing norms, regulations, and expectations to maintain legitimacy (DiMaggio & Powell, 1983; Scott, 2014). Yet the AI-BMI literature rarely incorporates institutional dynamics into explanations of how firms design and implement AI-enabled business models. Conversely, research on AI governance focuses on ethical guidelines, regulatory frameworks, and risk management without systematically linking governance mechanisms to strategic innovation outcomes (Papagiannidis *et al.*,

2025). Existing studies therefore provide only partial explanations of how organizations navigate institutional challenges associated with deploying AI in core business model activities.

The absence of an integrated perspective has important implications for management theory. Models of AI-driven innovation that neglect institutional conditions risk overstating technological capabilities while underestimating social and regulatory constraints shaping organizational change. Institutional theory emphasizes that organizations operate within environments defined by regulatory pressures, normative expectations, and shared cognitive frameworks that determine the acceptability of new practices (Scott, 2014). These pressures are becoming increasingly salient as governments introduce AI regulations, professional communities establish ethical standards, and stakeholders demand transparency and accountability in algorithmic decision systems (Dwivedi *et al.*, 2023). Without incorporating these dynamics, explanations of AI-driven business model innovation remain incomplete.

Addressing this gap requires a framework connecting institutional pressures with governance mechanisms that legitimize AI-driven business model innovation. Drawing on institutional theory and organizational legitimacy literature (Suchman, 1995), this study develops a mechanism-based framework explaining how coercive, normative, and mimetic pressures shape the adoption of AI governance practices within firms. These practices, including structural arrangements, procedural controls, and relational oversight mechanisms, influence the formation of legitimacy surrounding AI-enabled business models. Legitimacy then facilitates the acceptance, stabilization, and diffusion of AI-driven value architectures within organizational fields. Conceptualizing governance as a mediating mechanism highlights how organizations translate AI capabilities into sustainable business model innovation.

This study contributes to research on innovation, strategy, and organizational studies in three ways. First, it advances AI-driven business model innovation research by introducing institutional legitimacy as a key explanatory mechanism complementing capability-based explanations of technological innovation. Second, it extends institutional theory by demonstrating how institutional pressures translate into governance practices shaping strategic innovation rather than merely producing organizational conformity. Third, it contributes to responsible AI governance literature by positioning governance not only as a risk mitigation mechanism but also as a strategic enabler supporting the legitimacy and scalability of AI-enabled business models. This integrative perspective bridges previously disconnected research streams and clarifies the mechanisms through which AI-driven innovation becomes institutionally viable.

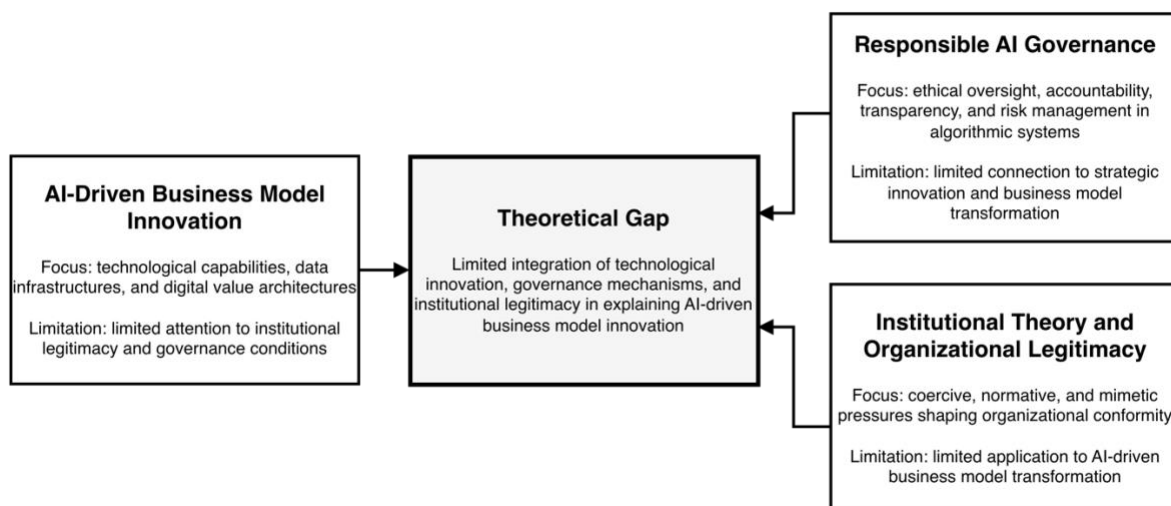
The remainder of the paper proceeds as follows. The next section reviews research on AI-driven business model innovation, responsible AI governance, and institutional legitimacy. The following section identifies conceptual tensions and theoretical gaps across these streams. Building on these insights, the paper develops an integrative mechanism-based framework explaining how institutional pressures shape governance practices that legitimize AI-driven business model innovation. The subsequent section presents a conceptual model and research propositions to guide empirical inquiry. The final sections discuss theoretical implications, outline directions for future research, and conclude by emphasizing the importance of legitimacy processes in AI-enabled business model evolution.

## 2. Fragmented Theoretical Landscape

Understanding how artificial intelligence (AI) reshapes business models requires integrating several research streams that have evolved largely in parallel. Business model innovation research explains how firms redesign value creation and capture mechanisms, while AI governance research emphasizes ethical oversight and risk management in algorithmic systems. Institutional theory examines how organizations respond to regulatory and normative pressures to maintain legitimacy. Despite their relevance, these streams remain weakly integrated, resulting in a fragmented understanding of how AI-driven business model innovation becomes organizationally and institutionally viable. This section reviews these

perspectives and evaluates their contributions to explaining the relationship between AI, governance, and organizational legitimacy.

The figure conceptually situates three parallel research streams—AI-driven business model innovation, responsible AI governance, and institutional theory—whose limited integration creates the theoretical gap addressed in the study. By organizing these literatures around their analytical focus, the figure establishes the conceptual rationale for developing an integrative framework.



**Figure 1.** Fragmented Theoretical Foundations of AI-Driven Business Model Innovation  
*Source: Author's conceptualization.*

Figure 1 shows that research on artificial intelligence and business model transformation spans three largely separate domains. Studies of AI-driven business model innovation emphasize technological capabilities and digital value architectures. Responsible AI governance research focuses on ethical oversight and algorithmic risk management. Institutional theory explains legitimacy and environmental pressures but rarely addresses AI-enabled business model transformation. The figure highlights this conceptual fragmentation and motivates an integrative framework linking institutional pressures, governance mechanisms, and legitimacy processes.

## 2.1 AI-Driven Business Model Innovation

Research on business model innovation (BMI) shows that firms achieve competitive advantage not only through new technologies or products but also by reconfiguring how value is created, delivered, and captured (Teece, 2010; Foss & Saebi, 2017). Within this perspective, BMI refers to the redesign of transactions, resources, and relationships that underpin value creation. Early studies emphasized structural changes in value propositions, customer segments, revenue mechanisms, and organizational activities. As digital technologies became central to strategy, scholars increasingly examined how digital infrastructures and data resources enable new forms of business model transformation.

The integration of artificial intelligence (AI) has further accelerated this transformation by enabling data-driven and algorithmically mediated business models. AI capabilities allow organizations to automate decision processes, generate predictive insights, and deliver highly personalized services. These capabilities support digital servitization in which firms combine physical products with AI-enabled services and analytics-based value propositions (Sjödín *et al.*, 2023). AI technologies also enable firms to monetize data assets and develop intelligent service ecosystems that connect customers, partners, and platforms in dynamic value creation processes. Consequently, AI-driven business model innovation (AI-BMI) has emerged as a key research area at the intersection of strategy, innovation, and information systems.

Recent literature conceptualizes AI-BMI as a multi-dimensional process involving technological capabilities, organizational transformation, and ecosystem orchestration.

Systematic reviews show that AI enables firms to redesign value propositions through predictive services, reshape value delivery through automated processes and digital platforms, and develop new revenue mechanisms based on data-driven services (Jorzik *et al.*, 2024). Empirical studies further demonstrate that AI adoption supports circular business models and sustainable innovation through improved resource allocation and predictive optimization (Sjödín *et al.*, 2023). These findings indicate that AI-driven transformation extends beyond technological adoption and reshapes the architecture of organizational value creation.

Despite these advances, the AI-BMI literature remains largely focused on technological capabilities and organizational resources that enable innovation. Many studies examine how firms leverage AI capabilities, data infrastructures, and dynamic capabilities to redesign their business models. Although this perspective highlights the strategic role of AI, it often assumes that once firms possess the necessary capabilities, AI-driven innovation will naturally follow. Consequently, limited attention has been paid to the institutional and societal conditions that influence the acceptance and legitimacy of AI-enabled business models.

## 2.2 Responsible AI Governance

A growing literature on responsible AI governance has emerged alongside research on AI-driven innovation. This stream examines ethical, regulatory, and organizational challenges associated with deploying AI in decision-making and service processes. As AI becomes embedded in organizational operations, concerns about bias, transparency, accountability, and privacy have intensified, prompting governments and professional communities to develop governance frameworks for trustworthy AI (Dwivedi *et al.*, 2023).

AI governance is commonly conceptualized as organizational practices and institutional arrangements that ensure responsible and accountable AI deployment. Recent research distinguishes structural governance mechanisms, such as oversight committees and accountability structures, procedural mechanisms including auditing and transparency protocols, and relational mechanisms involving stakeholder engagement and external oversight (Papagiannidis *et al.*, 2025). These mechanisms aim to mitigate technological risks while ensuring compliance with emerging regulatory and ethical standards.

Recent studies also highlight the institutionalization of AI governance across industries. Governments and international organizations have introduced guidelines emphasizing transparency, fairness, and accountability in algorithmic systems. Initiatives such as the European Union's AI Act and global standards developed by organizations including the OECD illustrate growing institutional pressure on firms to demonstrate responsible AI practices (Dwivedi *et al.*, 2023).

Despite these insights, the responsible AI governance literature rarely connects governance mechanisms to business model innovation. Most studies treat governance primarily as a compliance function for managing technological risks rather than as a strategic mechanism shaping how organizations design and legitimize new business models. As a result, the relationship between AI governance practices and innovation outcomes remains insufficiently developed.

## 2.3 Institutional Theory and Organizational Legitimacy

Institutional theory offers a useful lens for explaining how organizations respond to environmental pressures and societal expectations. Organizations operate within institutional environments shaped by regulatory frameworks, normative standards, and shared cognitive beliefs that define acceptable organizational behavior (Scott, 2014). To secure resources and maintain stability, firms align their practices with these expectations. Institutional pressures influence organizational behavior primarily through institutional isomorphism, which arises from coercive, normative, and mimetic forces (DiMaggio & Powell, 1983).

A central concept in institutional theory is organizational legitimacy, defined as the generalized perception that organizational actions are appropriate within a socially

constructed system of norms and values (Suchman, 1995). Legitimacy enables organizations to secure resources, maintain stakeholder support, and sustain long-term survival. Scholars commonly distinguish three forms of legitimacy: pragmatic legitimacy derived from stakeholder interests, moral legitimacy based on normative evaluations of organizational conduct, and cognitive legitimacy arising from taken-for-granted assumptions about organizational practices.

Recent research highlights the dynamic nature of legitimacy in rapidly evolving technological environments. As technologies such as artificial intelligence reshape organizational practices and decision processes, firms face increasing scrutiny regarding transparency, accountability, and societal trust (Meyer & Tse, 2025). Legitimacy therefore becomes an ongoing process through which organizations negotiate the acceptability of new technologies within institutional fields.

Despite its relevance, institutional theory remains underutilized in research on AI-driven business model innovation. Existing studies acknowledge that regulatory and normative pressures influence technology adoption but rarely examine how these pressures shape the governance and design of AI-enabled business models. Consequently, the role of institutional legitimacy in AI-driven transformation remains insufficiently explored.

## **2.4 Toward an Integrative Perspective**

These three research streams offer valuable but incomplete explanations of the relationship between artificial intelligence, governance, and business model innovation. The AI-BMI literature explains how technological capabilities and digital infrastructures enable firms to redesign value creation architectures but pays limited attention to institutional conditions shaping the legitimacy of these innovations. In contrast, the responsible AI governance literature emphasizes ethical oversight and regulatory compliance yet rarely examines how governance mechanisms influence strategic innovation outcomes. Institutional theory provides a robust framework for understanding legitimacy and institutional pressures but has been only marginally applied to AI-driven business model transformation.

This fragmentation indicates the absence of an integrated theoretical framework explaining how institutional pressures shape governance practices and, in turn, influence the legitimacy and viability of AI-driven business model innovation. Technological capabilities alone cannot explain why some AI-enabled business models gain broad acceptance while others face resistance from regulators, stakeholders, or society. Addressing this gap requires a mechanism-based perspective linking institutional pressures, governance practices, and legitimacy formation to innovation outcomes. The following section therefore develops a conceptual framework explaining how governance mechanisms translate institutional expectations into legitimate and sustainable AI-enabled business models.

## **3. Conceptual Tensions and Theoretical Gaps**

Research on AI-driven business model innovation, responsible AI governance, and institutional legitimacy has developed largely along separate trajectories. Each stream explains how organizations adopt and manage artificial intelligence but rarely addresses the interaction between institutional pressures, governance practices, and business model innovation. The rapid diffusion of AI technologies has intensified tensions between technological experimentation, regulatory oversight, and societal expectations, exposing conceptual limitations in the existing literature. These tensions highlight the need for a more integrated theoretical perspective.

### **3.1 Innovation–Legitimacy Tension in AI-Driven Business Models**

A central tension in AI-driven business model innovation concerns the relationship between novelty and legitimacy. Business model innovation involves experimentation with new value creation mechanisms and organizational configurations (Foss & Saebi, 2017). Firms adopting AI technologies often introduce predictive services, algorithmic decision systems,

and automated customer interactions that enhance efficiency and differentiation but also challenge established norms regarding transparency, accountability, and fairness.

Institutional theory suggests that organizations must align their practices with prevailing social norms and regulatory frameworks to maintain legitimacy (Suchman, 1995; Scott, 2014). Innovations that diverge substantially from established practices may therefore lack initial legitimacy. This challenge is particularly pronounced in AI contexts, where opaque algorithmic systems make decision processes difficult for stakeholders to interpret. As a result, firms pursuing AI-driven business model innovation often encounter legitimacy deficits that generate resistance from regulators, customers, and other stakeholders (Dwivedi *et al.*, 2023). Despite its significance, this innovation–legitimacy tension remains underexplored in the AI-BMI literature, which predominantly emphasizes technological capabilities rather than institutional acceptance.

### **3.2 Efficiency–Accountability Tension in Algorithmic Decision Systems**

A second conceptual tension concerns the trade-off between efficiency and accountability in AI-enabled decision systems. AI technologies allow organizations to process large volumes of data and automate complex decisions with speed and precision, improving operational efficiency and enabling scalable business models (Brynjolfsson *et al.*, 2021). Across industries, algorithmic systems increasingly perform tasks such as credit scoring, pricing optimization, medical diagnostics, and customer service management.

However, reliance on algorithmic decision systems has raised concerns regarding bias, transparency, and explainability. Scholars and policymakers warn that opaque AI systems can produce decisions without clear justification or accountability (Dwivedi *et al.*, 2023). These concerns have prompted calls for stronger oversight and transparency in AI design and deployment, requiring organizations to balance efficiency gains with demands for explainable and accountable systems.

Although the responsible AI literature proposes governance and oversight mechanisms to address these challenges (Papagiannidis *et al.*, 2025), limited research examines how such mechanisms influence the design and implementation of AI-driven business models. As a result, the relationship between algorithmic efficiency and institutional accountability remains insufficiently theorized in the AI innovation literature.

### **3.3 Strategic Flexibility–Institutional Conformity Tension**

A third tension arises from the interaction between strategic flexibility and institutional conformity. Business model innovation requires organizations to experiment with new configurations of resources, activities, and revenue mechanisms to generate novel forms of value (Teece, 2010; Foss & Saebi, 2017). AI technologies intensify this experimentation by enabling data-driven value propositions and automated service systems that challenge traditional business models.

However, institutional theory suggests that organizations simultaneously face pressures to conform to established norms and practices. Coercive regulatory requirements, normative expectations from professional communities, and mimetic pressures from industry competitors shape organizational behavior within institutional fields (DiMaggio & Powell, 1983). In highly regulated environments, these pressures can constrain radical business model innovation and limit experimentation with emerging technologies.

Although recent studies acknowledge that institutional pressures influence organizational innovation processes, most research focuses on environmental sustainability or digital transformation rather than AI-driven business models (Lee *et al.*, 2024). As a result, the literature offers limited insight into how organizations balance experimentation with AI technologies and the need to conform to institutional expectations.

### **3.4 Governance as Constraint versus Governance as Enabler**

A final conceptual tension concerns the role of governance in technological innovation. Much of the literature portrays governance mechanisms primarily as constraints designed to prevent technological risks. Responsible AI frameworks emphasize oversight, auditing, and regulatory compliance as tools for controlling unintended consequences of algorithmic systems (Papagiannidis *et al.*, 2025). From this perspective, governance appears largely as a reactive response to technological risk rather than a proactive component of strategic innovation.

However, governance mechanisms may also function as enabling structures that support innovation by strengthening organizational legitimacy. Institutional theory suggests that governance arrangements signal conformity with societal norms and regulatory expectations, thereby increasing stakeholder trust in emerging organizational practices (Suchman, 1995; Scott, 2014). In the context of AI-driven business models, governance can legitimize algorithmic value creation and facilitate its acceptance within institutional environments.

Despite this potential, existing research rarely conceptualizes governance as an enabling mechanism. AI governance studies focus mainly on ethical compliance and risk mitigation, while business model innovation research often treats governance as peripheral to value creation. Consequently, the role of governance in bridging institutional expectations and strategic innovation remains underexplored.

### **3.5 Theoretical Gap and the Need for an Integrative Framework**

These conceptual tensions reveal a broader theoretical gap in research on AI-driven organizational transformation. Existing studies explain technological capabilities enabling AI-driven business model innovation, governance mechanisms regulating AI systems, and institutional pressures shaping organizational behavior. However, these perspectives remain weakly integrated, leaving limited understanding of how organizations translate institutional expectations into governance practices that legitimize AI-enabled business models.

Addressing this gap requires a mechanism-based perspective linking institutional pressures, governance practices, and legitimacy formation to business model innovation outcomes. A comprehensive framework must explain how coercive, normative, and mimetic pressures shape governance practices and how these practices generate legitimacy that supports AI-driven innovation. Integrating institutional theory, business model innovation research, and responsible AI governance literature provides a clearer explanation of how organizations navigate institutional challenges in AI-enabled transformation. The following section develops an integrative conceptual framework explaining how governance mechanisms translate institutional pressures into legitimacy that enables AI-driven business model innovation.

## **4. Toward an Integrative Mechanism-Based Framework**

Existing literature examines AI-driven business model innovation (AI-BMI), AI governance, and organizational legitimacy through largely separate analytical lenses. A key gap concerns the mechanism through which institutional pressures translate into organizational arrangements that render AI-enabled business models acceptable, trustworthy, and scalable. Building on recent studies of AI-BMI, responsible AI governance, and legitimacy, this framework proposes a causal sequence in which institutional pressures shape governance design, governance practices generate legitimacy, and legitimacy conditions AI-BMI outcomes. Governance therefore operates as an organizational mechanism that converts external expectations into viable AI-enabled value architectures (Jorzik *et al.*, 2024; Papagiannidis *et al.*, 2025; Meyer & Tse, 2025).

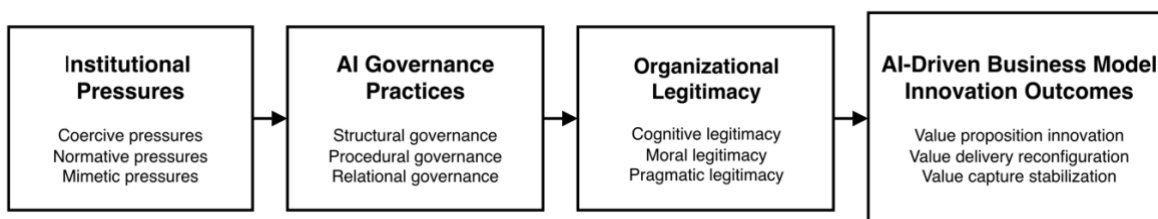
## 4.1 Foundational Assumptions

Four assumptions clarify the framework's ontological and causal logic. First, AI-driven business model innovation (AI-BMI) reflects a reconfiguration of value proposition, value delivery, and value capture through AI-enabled data processing, prediction, automation, and intelligent interaction. AI-driven BMI therefore extends beyond technology adoption and reshapes value creation logics and ecosystem relationships (Jorzik *et al.*, 2024). Second, AI-BMI is institutionally exposed because AI systems operate in socially sensitive domains such as decision making, personalization, and algorithmic control, which trigger scrutiny regarding fairness, privacy, transparency, and accountability (Dwivedi *et al.*, 2023; Papagiannidis *et al.*, 2025).

Third, legitimacy functions as a necessary condition for stabilizing and scaling AI-enabled business models. Organizational legitimacy is dynamic and audience-dependent, particularly in environments characterized by technological novelty and uncertainty (Meyer & Tse, 2025). Fourth, governance acts as the organizational translation mechanism converting dispersed institutional demands into structures, procedures, and relational practices that shape how AI systems are designed, deployed, monitored, and justified (Papagiannidis *et al.*, 2025).

These assumptions imply a sequential logic. Institutional environments shape AI governance design, governance practices generate legitimacy, and legitimacy conditions the implementation and diffusion of AI-enabled business models. The framework therefore advances a governance-mediated and legitimacy-conditioned explanation of AI-driven innovation (Jorzik *et al.*, 2024; Lee *et al.*, 2024; Meyer & Tse, 2025).

The following visual presents the core theoretical architecture developed in the article. It articulates the sequential mechanism through which institutional environments shape governance arrangements that subsequently generate legitimacy and enable AI-driven business model innovation. By structuring these relationships as a causal process, the figure clarifies how technological innovation becomes institutionally viable.



**Figure 2.** Governance-Mediated Mechanism Linking Institutional Pressures and AI-Driven Business Model Innovation

*Source: Developed by the author.*

Figure 2 outlines the sequential mechanism underlying the theoretical argument. Institutional environments create coercive, normative, and mimetic pressures that motivate organizations to formalize AI governance. Structural, procedural, and relational governance practices generate cognitive, moral, and pragmatic legitimacy around AI-enabled practices. These legitimacy mechanisms allow firms to stabilize and scale AI-driven business model innovation, including new value propositions, redesigned delivery systems, and sustainable value capture architectures. Institutional alignment therefore converts AI capabilities into viable business model innovation.

## 4.2 Institutional Pressures and Governance Design

The first mechanism explains why firms adopt specific AI governance arrangements. Institutional environments generate coercive, normative, and mimetic pressures that shape expectations about responsible and acceptable AI use. These pressures intensify because algorithmic systems increasingly influence socially consequential decisions while governance expectations become more explicit across industries and jurisdictions.

Coercive pressures arise from laws, regulatory frameworks, and compliance mandates that require formal AI governance. Recent regulatory developments such as the EU AI Act (Regulation (EU) 2024/1689) and the NIST AI Risk Management Framework with its 2024

generative AI profile increase the likelihood that firms establish governance structures including oversight roles, accountability systems, documentation routines, audit trails, and risk escalation procedures. Regulatory pressure therefore shapes governance architecture by making formal control systems a prerequisite for legitimate AI deployment (Papagiannidis *et al.*, 2025).

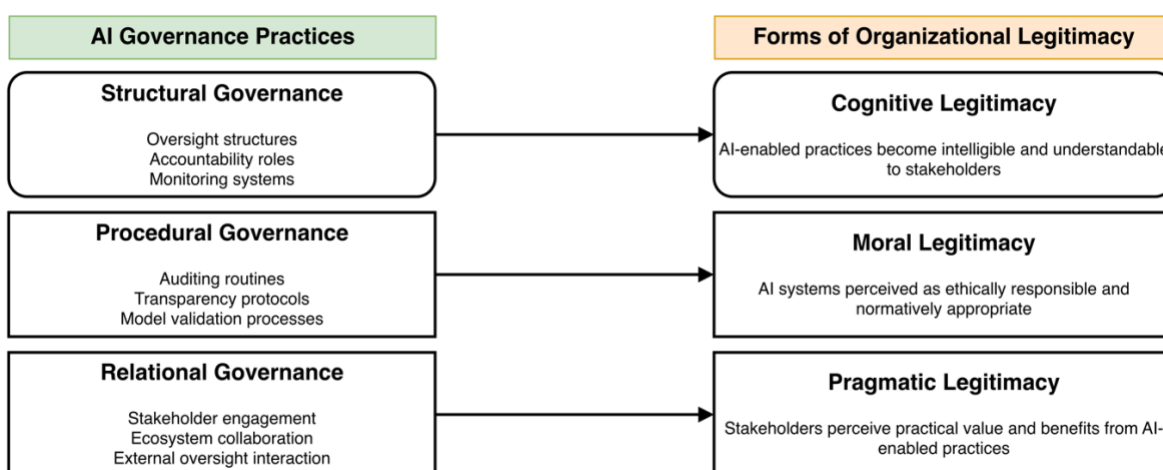
Normative pressures originate from professional standards and ethical expectations regarding responsible AI. Updated frameworks such as the OECD AI Principles emphasize trustworthy and human-centered AI aligned with democratic values. These expectations encourage procedural governance practices including ethics review routines, model validation protocols, transparency procedures, fairness testing, and incident response processes. Responsible AI governance research shows recurring normative themes such as transparency, accountability, fairness, safety, privacy, and human oversight, pushing organizations to embed these principles within operational procedures (Papagiannidis *et al.*, 2025; Dwivedi *et al.*, 2023).

Mimetic pressures emerge when uncertainty surrounding AI risks, social legitimacy, and commercial potential encourages firms to imitate governance templates used by credible actors. Organizations often benchmark against leading adopters, adopt recognized governance toolkits, or mirror disclosure and oversight practices associated with reputable incumbents. Such imitation reduces ambiguity and signals organizational responsibility when causal knowledge about effective AI deployment remains incomplete. Institutional pressures therefore shape not only whether firms innovate but also how they design the governance infrastructure surrounding AI-driven business model innovation (Lee *et al.*, 2024).

### 4.3 Governance Practices and Legitimacy Formation

The second mechanism explains how governance arrangements generate legitimacy for AI-driven business models. Structural, procedural, and relational governance practices contribute differently, each supporting a distinct dimension of legitimacy. Distinguishing these pathways clarifies how governance becomes strategically consequential for AI-driven business model innovation rather than merely signaling general responsibility (Papagiannidis *et al.*, 2025; Meyer & Tse, 2025).

The visual specifies how distinct AI governance practices generate organizational legitimacy. Structural, procedural, and relational mechanisms correspond to cognitive, moral, and pragmatic legitimacy in AI-enabled organizational settings.



**Figure 3.** Governance Pathways to Organizational Legitimacy in AI-Enabled Organizations.  
 Source: Developed by the author.

Figure 3 disaggregates the legitimacy-generating role of AI governance by linking governance practices to distinct forms of organizational legitimacy. Structural arrangements such as oversight bodies, accountability roles, and monitoring systems strengthen cognitive legitimacy by making AI-enabled practices intelligible to external audiences. Procedural mechanisms including audits, transparency protocols, and model validation reinforce moral

legitimacy by signaling compliance with ethical standards. Relational practices such as stakeholder engagement and ecosystem collaboration generate pragmatic legitimacy by aligning AI-enabled activities with stakeholder interests. These pathways show how governance mechanisms translate institutional expectations into legitimacy that enables the acceptance of AI-driven innovation.

Structural governance practices primarily support cognitive legitimacy. Formal oversight committees, clear decision rights, accountability structures, and documentation systems make AI-enabled business models more intelligible to external audiences. Such arrangements signal organizational order and recognizable governance templates, allowing regulators, partners, and stakeholders to interpret AI-enabled value creation as structured and manageable rather than opaque experimentation (Papagiannidis *et al.*, 2025).

Procedural governance practices support moral legitimacy. Practices such as fairness assessments, explainability checks, model validation, escalation routines, and accountability procedures demonstrate that AI deployment follows defensible decision rules. Responsible AI governance research identifies fairness, transparency, accountability, safety, privacy, and human oversight as central evaluative criteria, and procedural governance operationalizes these principles in repeatable organizational processes (Papagiannidis *et al.*, 2025; Camilleri, 2024).

Relational governance practices support pragmatic legitimacy. Engagement with regulators, ecosystem partners, and users helps align AI-enabled business models with stakeholder expectations. Communication, collaboration, and responsiveness signal that AI-based value creation produces practical benefits while remaining attentive to stakeholder concerns. This relational alignment is particularly important in data-centric platforms and service ecosystems where cooperation from multiple actors sustains the business model (Meyer & Tse, 2025; Papagiannidis *et al.*, 2025).

These pathways often reinforce one another. Structural arrangements support credible procedures, procedural practices substantiate claims made to stakeholders, and relational engagement informs governance redesign. Distinguishing them analytically clarifies why governance configurations generate different legitimacy outcomes across organizations and explains why compliance alone does not guarantee market acceptance.

#### **4.4 Legitimacy and AI-Driven Business Model Innovation Outcomes**

The third mechanism explains why legitimacy shapes business model innovation outcomes. Different forms of legitimacy enable distinct aspects of AI-driven business model innovation, particularly when firms scale new value propositions, redesign delivery systems, and stabilize revenue logics. Legitimacy therefore functions as the institutional condition through which AI capabilities translate into durable business model reconfiguration.

Cognitive legitimacy supports value proposition innovation by making AI-enabled offerings understandable to stakeholders. When customers, investors, partners, and regulators can interpret how AI contributes to the offering, uncertainty surrounding the business model declines. This is critical because AI-driven innovation often introduces unfamiliar value logics such as predictive services, autonomous recommendations, and algorithmically customized solutions. Cognitive legitimacy helps such redefinitions of value become institutionally intelligible rather than merely technologically novel (Jorzik *et al.*, 2024).

Moral legitimacy supports value delivery reconfiguration by reducing resistance to AI-mediated processes and decision systems. Automation, algorithmic prioritization, and machine-assisted judgment can improve efficiency but also raise concerns regarding fairness, explainability, and accountability. Procedurally grounded governance signals responsible AI use and increases stakeholder acceptance of AI-supported service delivery and operational coordination. Empirical research shows AI investment strengthens innovation outcomes while ethical governance increasingly shapes how these technologies are adopted and evaluated in organizations and markets (Babina *et al.*, 2024; Papagiannidis *et al.*, 2025).

Pragmatic legitimacy supports value capture stabilization because stakeholders remain willing to transact, collaborate, and share data when they perceive benefits from the AI-enabled model. Many AI-based business models depend on sustained participation from users, partners, and ecosystem actors. Pragmatic legitimacy aligns stakeholder interests with the business model and stabilizes participation in data-driven value creation systems (Sjödín *et al.*, 2023).

Legitimacy therefore operates as an enabling condition rather than a reputational add-on. AI-driven business model innovation may be technically feasible without legitimacy, but scaling, diffusion, and strategic persistence depend on social acceptance and institutional alignment. This mechanism complements recent calls for dynamic and mechanism-based explanations of AI-BMI beyond resource-centered perspectives (Jorzik *et al.*, 2024).

#### 4.5 Boundary Conditions

The framework is broadly applicable, but its explanatory strength varies across contexts. Boundary conditions clarify where the governance–legitimacy mechanism becomes most influential. Three conditions are particularly relevant: AI risk and opacity, the degree of institutionalization within the industry, and organizational governance maturity.

The mechanism strengthens when AI systems are opaque, high-risk, or socially consequential. Applications affecting domains such as finance, employment, healthcare, or security attract stronger scrutiny and regulatory oversight. Regulatory initiatives such as the EU AI Act and the NIST generative AI profile reinforce this risk-based logic by intensifying governance expectations as uncertainty increases. Under these conditions, institutional pressures more strongly shape governance design, and legitimacy becomes critical for business model viability.

Industry institutionalization also moderates the mechanism. In highly regulated sectors such as healthcare, finance, energy, and public services, expectations regarding accountability, documentation, and stakeholder protection are dense and enforceable. Governance arrangements therefore become more formalized and legitimacy deficits more costly. In emerging or weakly regulated sectors, organizations enjoy greater experimentation latitude but face higher ambiguity regarding acceptable AI practices. Institutional pressure can still shape business model innovation, although its influence depends on field-level support structures and norms (Lee *et al.*, 2024).

Organizational governance maturity further conditions the mechanism. Some firms possess the capabilities and routines required to operationalize governance credibly, whereas others respond symbolically through policy statements without substantive implementation. Responsible AI governance research highlights this gap between governance claims and governance practices. Legitimacy effects therefore depend not only on adopting governance artifacts but also on embedding them within decision processes, accountability systems, and stakeholder engagement practices (Papagiannidis *et al.*, 2025).

The framework therefore proposes a conditional mechanism: institutional pressures shape governance design; governance practices generate cognitive, moral, and pragmatic legitimacy; and legitimacy enables AI-driven business model innovation outcomes. The conceptual model and research propositions derived from this logic provide a basis for empirical examination across industries, organizational forms, and regulatory environments.

### 5. Integrative Conceptual Model

The framework proposes a mechanism-based explanation linking institutional pressures, governance practices, legitimacy formation, and AI-driven business model innovation (AI-BMI). The conceptual model explains how organizations translate institutional expectations surrounding artificial intelligence into governance arrangements that legitimize AI-enabled value architectures and enable sustainable business model innovation. Rather than focusing only on technological capabilities, the model identifies governance and legitimacy as

mediating mechanisms connecting institutional environments with innovation outcomes (Jorzik *et al.*, 2024; Papagiannidis *et al.*, 2025; Meyer & Tse, 2025).

Table 1 defines the conceptual constructs structuring the framework and specifies their analytical roles. These definitions enhance conceptual precision and support future empirical operationalization. Unlike the figures that depict relationships and mechanisms, the table clarifies the core elements of the framework.

**Table 1.** Conceptual Definitions of Core Constructs in the Framework

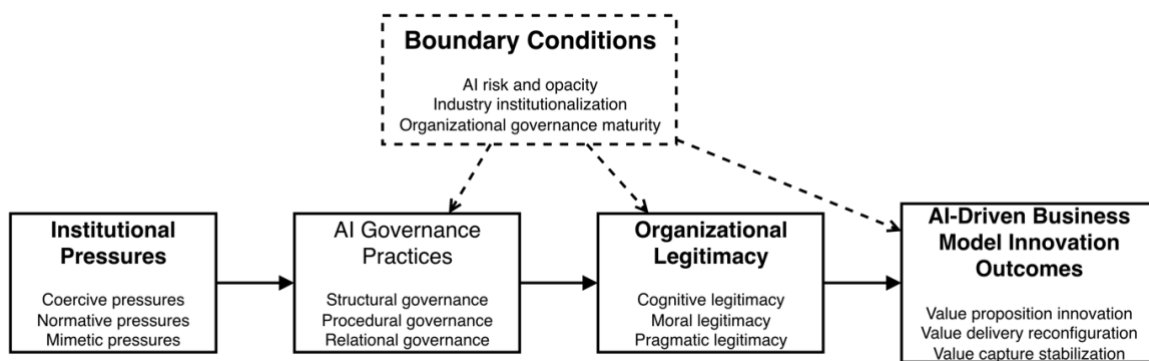
<b>Construct</b>	<b>Conceptual Definition</b>	<b>Analytical Role in the Framework</b>	<b>Key Literature Basis</b>
Institutional Pressures	Environmental forces arising from regulatory frameworks, professional norms, and industry practices that shape organizational behavior.	Provide external expectations that motivate organizations to establish governance arrangements for artificial intelligence.	DiMaggio & Powell (1983); Scott (2014)
AI Governance Practices	Organizational structures, procedures, and relational mechanisms designed to guide the responsible development, deployment, and monitoring of AI systems.	Translate institutional expectations into operational organizational practices that structure AI deployment.	Papagiannidis <i>et al.</i> (2025)
Structural Governance	Formal organizational arrangements such as oversight committees, accountability roles, and monitoring structures responsible for supervising AI development and use.	Creates institutionalized organizational control over AI systems and supports interpretability of AI-enabled activities.	Papagiannidis <i>et al.</i> (2025)
Procedural Governance	Operational routines including auditing procedures, transparency protocols, fairness assessments, and model validation processes applied to AI systems.	Institutionalizes ethical oversight and accountability within the development and deployment of AI technologies.	Dwivedi <i>et al.</i> (2023); Papagiannidis <i>et al.</i> (2025)
Relational Governance	Engagement mechanisms involving collaboration and communication with stakeholders, regulators, and ecosystem partners regarding AI practices.	Aligns AI-enabled organizational activities with stakeholder expectations and institutional norms.	Meyer & Tse (2025)
Cognitive Legitimacy	The extent to which AI-enabled organizational practices are perceived as understandable and taken for granted by relevant stakeholders.	Enables stakeholders to interpret and accept AI-enabled value propositions and business logic.	Suchman (1995)
Moral Legitimacy	Stakeholder evaluation that AI systems operate according to appropriate ethical and normative standards.	Reduces resistance to algorithmic decision processes and strengthens perceptions of responsible AI deployment.	Suchman (1995)
Pragmatic Legitimacy	Stakeholder perception that organizational practices generate practical benefits aligned with their interests.	Encourages stakeholder participation and cooperation in AI-enabled value creation systems.	Suchman (1995)
AI-Driven Business	The reconfiguration of value proposition, value delivery, and value capture	Represents the innovation outcome enabled by governance and legitimacy	Teece (2010); Foss & Saebi (2017); Jorzik <i>et al.</i> (2024)

Construct	Conceptual Definition	Analytical Role in the Framework	Key Literature Basis
Model Innovation	mechanisms through AI-enabled data processing, prediction, and automation capabilities.	mechanisms within the framework.	

Source: Developed by the author based on the cited literature.

Table 2 specifies the conceptual architecture by defining the meaning and theoretical role of each construct. This clarification strengthens internal coherence and supports future empirical studies that operationalize institutional pressures, governance practices, legitimacy mechanisms, and AI-driven business model innovation outcomes.

The model integrates institutional pressures, governance practices, legitimacy mechanisms, and AI-driven business model innovation within a single analytical framework. It also incorporates contextual boundary conditions that shape these relationships. This structure clarifies how the article's propositions connect to the overall causal mechanism.



**Figure 4.** Integrative Model of Institutional Pressures, AI Governance, Legitimacy, and AI-Driven Business Model Innovation

Source: Developed by the author.

Figure 4 presents an integrative model linking institutional pressures, AI governance, legitimacy, and business model innovation. Regulatory, normative, and mimetic pressures shape how organizations design governance arrangements for artificial intelligence. Structural, procedural, and relational governance practices generate cognitive, moral, and pragmatic legitimacy that enables the implementation and stabilization of AI-driven business model innovation. The model also identifies boundary conditions including AI risk, industry institutionalization, and governance maturity that moderate governance and legitimacy effects on innovation outcomes. Legitimacy operates as the mediating mechanism connecting governance practices to innovation results.

Institutional pressures form the model's foundation. Institutional theory describes coercive, normative, and mimetic forces that encourage organizations to conform to socially accepted practices to maintain legitimacy and resource access (DiMaggio & Powell, 1983; Scott, 2014). AI adoption intensifies these pressures because regulators, professional communities, and societal actors increasingly demand transparency, accountability, and ethical oversight in algorithmic systems (Dwivedi *et al.*, 2023).

Organizations respond through AI governance practices, which translate institutional expectations into organizational routines. Responsible AI governance includes structural practices such as oversight roles and accountability structures, procedural practices such as auditing and model validation, and relational practices such as stakeholder engagement and ecosystem collaboration (Papagiannidis *et al.*, 2025). These governance arrangements guide how AI technologies are integrated into organizational decision systems and business processes.

Governance practices generate legitimacy. Organizational legitimacy reflects perceptions that a firm's actions are appropriate within a system of norms and beliefs (Suchman, 1995). Structural governance supports cognitive legitimacy by making AI-enabled business models

intelligible. Procedural governance strengthens moral legitimacy by demonstrating ethical oversight. Relational governance builds pragmatic legitimacy by aligning AI-enabled value creation with stakeholder interests (Papagiannidis *et al.*, 2025; Meyer & Tse, 2025).

Legitimacy enables AI-driven business model innovation outcomes. Business model innovation involves redesigning value creation, value delivery, and value capture mechanisms (Teece, 2010; Foss & Saebi, 2017). AI technologies accelerate these transformations through predictive services, personalized offerings, algorithmic pricing, and data-driven service ecosystems (Sjödin *et al.*, 2023; Jorzik *et al.*, 2024). Innovation success therefore depends not only on technological capability but also on stakeholder acceptance.

Legitimacy functions as the enabling condition that allows AI-enabled business models to scale and stabilize. Cognitive legitimacy facilitates understanding of AI-based value propositions, moral legitimacy reduces resistance to algorithmic decision systems, and pragmatic legitimacy sustains stakeholder participation. Together these mechanisms convert AI capabilities into viable and durable business model innovations (Jorzik *et al.*, 2024; Meyer & Tse, 2025).

The model also recognizes boundary conditions. AI risk and opacity intensify institutional scrutiny, particularly in high-stakes applications (Dwivedi *et al.*, 2023). Industry institutional maturity shapes the strength of regulatory and normative expectations, while organizational governance maturity influences how effectively firms translate institutional pressures into legitimacy-generating practices (Papagiannidis *et al.*, 2025).

Overall, the model proposes a sequential mechanism: institutional pressures shape governance design, governance practices generate legitimacy, and legitimacy enables AI-driven business model innovation outcomes.

## 6. Research Propositions

The framework links institutional pressures, AI governance practices, legitimacy formation, and AI-driven business model innovation (AI-BMI). To enable empirical examination, the framework translates this mechanism into a set of research propositions specifying the causal relationships between institutional environments, governance design, legitimacy outcomes, and innovation performance. The central argument proposes a sequential mechanism in which institutional pressures shape governance practices, governance practices generate legitimacy, and legitimacy enables the successful implementation of AI-driven business model innovation.

### 6.1 Institutional Pressures and the Design of AI Governance

Institutional theory explains how organizations adapt structures and practices in response to pressures from regulators, professional communities, and competitive environments (DiMaggio & Powell, 1983; Scott, 2014). AI adoption intensifies these pressures because algorithmic systems raise concerns regarding transparency, accountability, and ethical oversight. Governments, industry bodies, and international organizations increasingly introduce regulatory frameworks and governance guidelines promoting trustworthy AI deployment (Dwivedi *et al.*, 2023). As a result, organizations face incentives to formalize governance arrangements demonstrating responsible AI use.

Coercive pressures from regulators often lead firms to adopt structural governance mechanisms such as oversight committees, accountability structures, and internal monitoring systems. These arrangements demonstrate organizational control over AI development and deployment while signaling compliance with regulatory expectations.

**Proposition 1:** *Greater coercive institutional pressure surrounding artificial intelligence increases the likelihood that organizations adopt structural AI governance practices within business model innovation processes.*

Normative pressures from professional communities and ethical standards also shape governance design. As responsible AI principles become institutionalized through professional guidelines and industry standards, organizations adopt procedural governance mechanisms such as ethical review routines, transparency protocols, and accountability procedures. These practices translate ethical principles into operational routines guiding AI system development and evaluation.

**Proposition 2:** *Normative institutional pressures positively influence the adoption of procedural AI governance practices that embed ethical oversight and accountability in AI-driven business model innovation.*

Mimetic pressures emerge when organizations imitate governance arrangements adopted by recognized industry actors under conditions of technological uncertainty. Benchmarking and imitation reduce ambiguity and signal conformity with emerging governance norms.

**Proposition 3:** *Mimetic institutional pressures increase the likelihood that organizations adopt relational AI governance practices involving stakeholder engagement and alignment with established governance templates.*

## 6.2 Governance Practices and Legitimacy Formation

Governance practices generate organizational legitimacy, defined as the perception that organizational actions are appropriate within socially constructed norms and values (Suchman, 1995). Responsible AI governance research shows that governance structures, procedures, and stakeholder engagement mechanisms function as signals that organizations manage technological risks responsibly (Papagiannidis *et al.*, 2025).

Structural governance practices primarily support cognitive legitimacy by making AI-enabled business models intelligible to stakeholders. Oversight committees, accountability frameworks, and monitoring systems clarify how algorithmic decision processes operate within organizational structures.

**Proposition 4:** *Structural AI governance practices positively influence the cognitive legitimacy of AI-driven business model innovation.*

Procedural governance practices support moral legitimacy by demonstrating that organizations actively manage ethical and societal implications of AI systems. Mechanisms such as algorithmic auditing, fairness assessments, transparency reporting, and accountability procedures signal responsible oversight.

**Proposition 5:** *Procedural AI governance practices positively influence the moral legitimacy of AI-driven business model innovation.*

Relational governance practices strengthen pragmatic legitimacy by aligning AI-enabled business models with stakeholder interests through engagement, collaboration, and ecosystem partnerships.

**Proposition 6:** *Relational AI governance practices positively influence the pragmatic legitimacy of AI-driven business model innovation.*

## 6.3 Legitimacy and AI-Driven Business Model Innovation Outcomes

Business model innovation involves redesigning mechanisms of value creation, value delivery, and value capture (Teece, 2010; Foss & Saebi, 2017). AI technologies accelerate these transformations through predictive services, personalized offerings, algorithmic pricing, and data-driven service ecosystems (Sjödin *et al.*, 2023; Jorzik *et al.*, 2024). However, innovation success depends not only on technological capability but also on institutional acceptance.

Legitimacy reduces uncertainty and increases stakeholder acceptance of AI-enabled business models. Cognitive legitimacy facilitates understanding of AI-based value propositions, moral legitimacy ensures algorithmic decisions are perceived as responsible, and pragmatic legitimacy encourages stakeholder participation and cooperation.

**Proposition 7:** *Organizational legitimacy mediates the relationship between AI governance practices and AI-driven business model innovation outcomes.*

The strength of this relationship depends on contextual conditions, particularly technological risk and institutional scrutiny. High-risk AI applications attract stronger regulatory attention and increase the importance of governance and legitimacy mechanisms.

**Proposition 8:** *The positive relationship between organizational legitimacy and AI-driven business model innovation outcomes is stronger in contexts characterized by high AI-related risk and institutional scrutiny.*

## 6.4 Summary of Propositions

The propositions specify a sequential causal chain linking institutional pressures, governance design, legitimacy formation, and AI-driven business model innovation outcomes. This framework clarifies how governance mechanisms mediate the relationship between institutional environments and innovation processes. Future research can examine these relationships using quantitative, qualitative, or mixed-method approaches across industries and institutional contexts.

Table 1 summarizes the research propositions derived from the conceptual framework. It outlines the theoretical relationships linking institutional pressures, AI governance practices, legitimacy formation, and AI-driven business model innovation outcomes. The tabular format clarifies the model's analytical logic and facilitates empirical interpretation.

**Table 2.** Summary of Research Propositions Linking Institutional Pressures, Governance Practices, and AI-Driven Business Model Innovation

Proposition and Theoretical Relationship		Analytical Explanation
<b>P1</b>	Coercive institutional pressures → Structural AI governance practices	Regulatory mandates and legal requirements surrounding artificial intelligence increase the likelihood that organizations establish structural governance arrangements such as oversight committees, accountability systems, and monitoring structures.
<b>P2</b>	Normative institutional pressures → Procedural AI governance practices	Professional norms and ethical expectations regarding responsible AI encourage organizations to implement procedural governance mechanisms including ethical review processes, transparency protocols, and accountability routines.
<b>P3</b>	Mimetic institutional pressures → Relational AI governance practices	Under conditions of uncertainty, organizations imitate governance arrangements adopted by leading firms, encouraging relational governance practices such as stakeholder engagement and ecosystem collaboration.
<b>P4</b>	Structural AI governance practices → Cognitive legitimacy	Formal governance structures make AI-enabled organizational practices more understandable and interpretable to stakeholders, thereby strengthening cognitive legitimacy.
<b>P5</b>	Procedural AI governance practices → Moral legitimacy	Governance procedures such as auditing, fairness testing, and transparency protocols demonstrate responsible AI deployment and reinforce moral legitimacy.
<b>P6</b>	Relational AI governance practices → Pragmatic legitimacy	Stakeholder engagement and collaborative governance practices align AI-enabled value creation with stakeholder interests, supporting pragmatic legitimacy.
<b>P7</b>	Organizational legitimacy → AI-driven business model innovation outcomes (mediating mechanism)	Cognitive, moral, and pragmatic legitimacy collectively mediate the relationship between AI governance practices and the successful implementation of AI-driven business model innovation.
<b>P8</b>	AI-related risk and institutional scrutiny	The positive influence of legitimacy on AI-driven business model innovation becomes stronger in contexts characterized by high technological risk and strong institutional oversight.

Proposition and Theoretical Relationship	Analytical Explanation
→ Moderating effect on legitimacy–innovation relationship	

Source: Developed by the author.

Table 1 synthesizes the theoretical relationships by organizing the eight propositions into a coherent structure. The first group explains how institutional pressures shape AI governance practices. The second links governance arrangements to cognitive, moral, and pragmatic legitimacy. The final propositions specify mediating and moderating mechanisms connecting legitimacy with AI-driven business model innovation. The table clarifies the sequential logic of the conceptual framework and identifies pathways for future empirical research.

## 7. Discussion

The framework advances a mechanism-based explanation of how artificial intelligence becomes embedded in organizational business models through institutional and governance processes. AI-driven business model innovation (AI-BMI) is therefore understood not only as a technological capability but as an institutionally conditioned process mediated by governance and legitimacy. Institutional pressures shape AI governance design, governance practices generate legitimacy, and legitimacy enables the stabilization and diffusion of AI-driven business models. The viability of AI-enabled innovation therefore depends on organizations' ability to align technological transformation with institutional expectations and stakeholder norms.

This perspective helps explain uneven outcomes in AI-driven innovation. While some firms convert AI investments into scalable business models, others remain confined to experimental pilots or face regulatory and stakeholder resistance. Empirical evidence shows AI investment produces heterogeneous performance outcomes, suggesting technological capability alone cannot explain innovation success (Babina *et al.*, 2024). The governance–legitimacy mechanism explains this variation by showing how governance practices translate technological capability into institutionally accepted and sustainable business model innovation.

### 7.1 Theoretical Contributions

This article contributes to several literature streams by clarifying institutional mechanisms enabling AI-driven business model innovation. First, it advances research on AI-driven business model innovation, which commonly explains innovation through technological capabilities, data infrastructures, or dynamic capabilities enabling firms to redesign value creation architectures (Jorzik *et al.*, 2024; Sjödin *et al.*, 2023). Such perspectives emphasize technological resources but often assume innovation follows automatically once capabilities are acquired. The framework demonstrates that AI-driven business model innovation also depends on institutional legitimacy processes. Integrating governance and legitimacy mechanisms shows how technological innovation becomes embedded within institutional environments.

Second, the framework extends institutional theory. Institutional research explains organizational behavior through coercive, normative, and mimetic pressures shaping legitimacy and access to resources (DiMaggio & Powell, 1983; Scott, 2014). Applications to digital and algorithmic innovation remain limited. The model explains how organizations translate institutional pressures into governance arrangements that manage emerging technologies. Institutional pressures therefore function not only as constraints but also as drivers shaping governance structures that support legitimate technological experimentation (Meyer & Tse, 2025).

Third, the framework contributes to responsible AI governance research. Existing studies emphasize governance mechanisms ensuring transparency, fairness, and accountability in

algorithmic systems (Dwivedi *et al.*, 2023; Papagiannidis *et al.*, 2025). Most studies frame governance mainly as a risk-mitigation mechanism. The framework highlights governance as a strategic mechanism enabling innovation. Linking governance practices with cognitive, moral, and pragmatic legitimacy explains how governance supports the adoption and diffusion of AI-enabled business models.

The framework also explains empirical patterns observed in digital transformation research. Studies of digital servitization show AI technologies enable service-based business models whose success depends on stakeholder trust and institutional acceptance (Sjödin *et al.*, 2023). Research on AI adoption similarly shows ethical, regulatory, and societal concerns influence the scaling of AI-enabled innovation (Dwivedi *et al.*, 2023). Positioning legitimacy as the mediating mechanism between governance and innovation outcomes integrates these findings and clarifies how institutional alignment enables AI-driven business model innovation.

## 7.2 Implications for Future Research

The conceptual framework developed here opens several avenues for future research on AI-driven business model innovation. Empirical studies can examine the governance–legitimacy mechanism proposed in the model. Future research may investigate how AI governance practices influence stakeholder trust, regulatory acceptance, and market adoption of AI-enabled products and services. Quantitative designs can test relationships between governance practices, legitimacy perceptions, and innovation outcomes across industries with varying technological risk and institutional scrutiny.

Future work can also examine the dynamic evolution of governance and legitimacy in AI-driven innovation. Institutional expectations surrounding artificial intelligence continue to evolve as regulatory frameworks expand and societal debates intensify. Longitudinal research can explore how organizations adjust governance structures as institutional pressures shift. Such studies would clarify how legitimacy develops throughout technological innovation and how organizations redesign governance practices under changing institutional conditions.

Further research may extend the framework by incorporating organizational capabilities and ecosystem dynamics. Firms differ in their ability to operationalize responsible AI governance. Integrating insights from dynamic capability theory may explain how organizations develop capabilities required to implement governance structures effectively. Ecosystem-oriented research can also analyze how platform firms, technology providers, and regulators collectively shape governance standards for AI-enabled business models.

The framework also suggests implications for managerial practice and public policy. Successful AI-driven innovation requires more than technological investment. Organizations must design governance systems that ensure transparency, accountability, and stakeholder engagement in AI-supported decision processes. Firms institutionalizing responsible AI governance may build stronger trust and legitimacy for their innovations. Policy frameworks that balance experimentation with accountability can support the sustainable development of AI-driven business models.

AI-driven business model innovation therefore represents an institutionally embedded process shaped by governance and legitimacy rather than a purely technological transformation. Integrating institutional theory, responsible AI governance, and business model innovation research provides a more comprehensive explanation of how organizations navigate institutional challenges during AI-enabled transformation.

## 8. Conclusion

This article set out to explain how artificial intelligence enables business model innovation within increasingly complex institutional environments. Building on insights from business model innovation research, institutional theory, and responsible AI governance, the article

developed a mechanism-based conceptual framework explaining how organizations legitimize AI-driven business model innovation. The framework proposes a sequential process in which institutional pressures influence the design of AI governance practices, governance practices generate different forms of organizational legitimacy, and legitimacy enables the successful implementation and stabilization of AI-driven business model innovation outcomes. By conceptualizing governance and legitimacy as mediating mechanisms, the framework highlights that the transformation of business models through artificial intelligence is not merely a technological process but an institutionally embedded organizational phenomenon shaped by societal expectations, regulatory structures, and stakeholder trust.

The conceptual framework developed in this article contributes to the literature in several ways. First, it extends research on AI-driven business model innovation by demonstrating that technological capabilities alone cannot explain the emergence and sustainability of AI-enabled business models; instead, institutional legitimacy plays a critical role in enabling innovation outcomes. Second, the framework advances institutional theory by illustrating how organizations actively translate coercive, normative, and mimetic pressures into governance practices that facilitate rather than constrain innovation. Third, the article contributes to the growing literature on responsible AI governance by repositioning governance as a strategic mechanism that supports the legitimacy and scalability of AI-enabled business models. By integrating these previously fragmented perspectives, the framework clarifies the mechanisms through which organizations navigate the institutional challenges associated with AI-driven transformation.

The propositions derived from the conceptual model provide a foundation for future empirical research. Subsequent studies may examine how organizations operationalize governance practices in response to institutional pressures and how these practices influence stakeholder perceptions of legitimacy in AI-enabled business models. Empirical research across different industries and institutional contexts could test the proposed relationships between governance practices, legitimacy formation, and innovation outcomes. In addition, longitudinal studies could explore how governance and legitimacy evolve over time as artificial intelligence technologies mature and regulatory environments continue to develop. Such research would deepen our understanding of how institutional dynamics shape the trajectory of AI-driven organizational innovation.

Beyond its theoretical implications, the framework also offers broader insights for managers and policymakers navigating the rapid diffusion of artificial intelligence in organizational contexts. For managers, the findings suggest that successful AI-driven innovation requires not only technological investment but also the development of governance structures that align AI-enabled practices with societal expectations and stakeholder interests. For policymakers, the framework highlights the importance of governance regimes that encourage responsible experimentation with AI technologies while maintaining accountability and public trust. By emphasizing the interplay between innovation, governance, and legitimacy, this article underscores that the future of AI-driven business models will depend on organizations' ability to integrate technological advancement with institutional responsibility.

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