

Disruptive Business Model Innovation: How Digital Startups Commercialize Traditional Services

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Abstract: The global digital ecosystem in 2026 is driven by exponential technological transformation, yet the survival rate of early-stage digital startups remains critically low due to flawed business model execution. While literature extensively covers tech conglomerates, insufficient focus has been placed on how early-stage ventures systematically digitize legacy, offline markets. This study addresses this gap by exploring the strategic configuration of Disruptive Business Model Innovation (DBMI) and investigating how digital startups commercialize and scale traditional, fragmented service sectors. Adopting an exploratory qualitative research design, this study utilizes a multiple case study methodology across three distinct digital startups operating in an emerging economy context: an on-demand micro-logistics platform, a B2B MSME supply chain ecosystem, and an on-demand professional home service platform. Primary data was gathered through semi-structured interviews with startup founders and chief product officers, complemented by secondary data triangulation including platform UI/UX audits, digital distribution metrics, and corporate financial statements. The data was analyzed using thematic analysis and cross-case synthesis via NVivo 12. This research concludes that DBMI is an adaptive ecosystem capability rather than a static blueprint. To mitigate premature venture mortality, entrepreneurship students and early-stage innovators must shift from "technology myopia" toward optimizing positive unit economics, ensuring hyper-local user interface customization, and establishing coopetition frameworks with traditional legacy incumbents.

Keywords: Disruptive Business Model Innovation; Digital Startups; Traditional Services; Platform Orchestration; Value Deconstruction; Entrepreneurship Education.

A. Introduction

The Global Landscape of Digital Disruption and the Rise of DBMI

The global economy is currently undergoing a structural transformation driven by the exponential growth of the digital ecosystem. Over the past decade, and stretching into 2026,

the intersection of advanced technology and entrepreneurial action has redefined how industries operate. At the core of this revolution is Disruptive Business Model Innovation (DBMI), a phenomenon where new market entrants do not merely introduce new products, but entirely redesign the architecture of value creation, value delivery, and value capture (Coskun-Setirek & Tanrikulu, 2021). Grounded in the seminal work of Clayton Christensen's disruptive innovation theory, contemporary disruption is no longer just about offering low-cost technological alternatives; it is about leveraging digital platforms to transform traditional, asset-heavy, and friction-filled service sectors into agile ecosystems (IMD, 2024; Christensen et al., 2015). Historically, traditional services—ranging from public transportation, local logistics, informal retail, to conventional financial lending—depended heavily on physical infrastructure, geographical proximity, and linear supply chains. These legacy systems inherently suffered from operational inefficiencies, high transactional asymmetry, and limited scalability (Scribd, 2025). However, the democratization of internet access, mobile computing, cloud architectures, and data analytics has allowed new ventures to bridge these systemic gaps. Digital startups have discovered that the most fertile ground for disruption lies not in inventing entirely new needs, but in commercializing and optimizing traditional services that have long been underserved by modern technology (Ancillai et al., 2023).

1. The Shift from Asset Ownership to Platform Orchestration

A key mechanic of DBMI implemented by digital startups is the transition from asset ownership to platform orchestration. Traditional service providers bear high capital expenditures (CapEx) and operational risks. For instance, conventional taxi corporations must purchase and maintain vehicle fleets, while traditional hospitality chains must own or lease physical real estate. In stark contrast, digital startups employ asset-light business models. By acting as multi-sided platform orchestrators, these startups construct digital marketplaces that match fragmented supply with real-time demand (Econstor, 2024; Parida et al., 2019).

This phenomenon is highly evident in emerging markets like Indonesia, where hyper-local traditional services have been systematically integrated into digital networks. Startups like GoTo (Gojek) converted informal motorcycle taxis (ojek) into a highly institutionalized on-demand transport, logistics, and fintech powerhouse. Similar patterns are seen globally with platforms converting private spaces into hospitality networks (Airbnb) or converting conventional retail into social-commerce operations. The innovation lies in the platform's capacity to leverage data as a primary strategic resource, allowing for granular consumer personalization, dynamic pricing, and behavioral predictive modeling that traditional incumbents cannot replicate (Telkom University, 2024; Daradkeh, 2023).

2. Empirical Facts: The Growth and Failure Rates of Digital Startups

From an empirical perspective, the momentum of digital entrepreneurship is unprecedented. In developing economic regions across Southeast Asia, tech startup ecosystems are booming due to favorable demographic premiums, high smartphone penetration, and active venture capital injections (Judijanto, 2024). However, this rapid growth hides a harsh operational reality. While thousands of digital startups enter the market annually, the survival rate remains critically low. Quantitative data indicates that approximately 90% of newly founded tech startups fail within their first three to five years of operation (Universitas Indonesia, 2022).

Interestingly, market research reveals that the primary catalyst for these failures is not necessarily technological malfunction, but rather a misalignment in business model implementation. According to studies by CB Insights, nearly 17% to 18% of digital startups fail because they adopt flawed business models or design commercialized services that fail to capture authentic market demand (CB Insights, 2019; UI, 2022). Many student entrepreneurs and early-stage startup founders suffer from "technology myopia"—an over-focus on building sophisticated mobile applications or deploying artificial intelligence (AI) tools, while neglecting the underlying value proposition and unit economics needed to sustain cash flow.

Consequently, understanding the configuration of DBMI is a matter of strategic survival.

B. Literature Review

Theoretical Background and Core Research Gaps In entrepreneurial literature, analyzing how startups successfully commercialize traditional services requires integrating multiple theoretical lenses. The Resource-Based View (RBV) suggests that startups build sustainable competitive advantages by configuring unique, non-substitutable digital capabilities (Aripadono, 2023). This is complemented by Dynamic Capabilities Theory, which states that in volatile digital markets, a firm's survival depends on its agility to sense market opportunities, seize those opportunities through business model validation, and continuously transform internal structures (Del Giudice et al., 2020; Zhang et al., 2023).

Despite the abundance of literature on digital transformation, a major research gap persists. Most existing frameworks—such as the classic Business Model Canvas (BMC)—treat business models as static architectures (Osterwalder & Pigneur, 2010). They provide insufficient insights into the dynamic process of how a startup systematically deconstructs a traditional, offline service and rebuilds it into a scalable digital entity (Emerald Insight, 2025). There is an incomplete theoretical understanding of how resource-constrained startups overcome institutional voids, establish trust ecosystems in informal markets, and manage the coopetition (cooperation and competition) with defensive traditional incumbents (Vaska et al., 2021; PMC, 2022). Furthermore, research focusing specifically on how entrepreneurship students conceptualize and execute these disruptive models remains scarce, leaving a pedagogy-practice gap in higher entrepreneurship education.

1. Research Questions and Objectives

To bridge these theoretical and practical divides, this study aims to explore the deep mechanics of disruptive business model innovation within the context of digital startups. It addresses a core

question: How do digital startups systematically configure their digital business models to successfully commercialize and scale traditional services?

To unpack this core inquiry, the paper outlines three primary research questions:

What are the core dimensions of digital business model innovation (DBMI) used by startups to reconfigure traditional value propositions?

How do digital startups leverage platform orchestration to mitigate resource constraints while scaling traditional services?

What strategic frameworks can student entrepreneurs adopt to prevent premature business model failure during market commercialization?

2. Novelty and Contribution of the Study

The novelty of this research lies in its empirical granularity and practical orientation. Unlike mainstream research that focuses on multi-billion dollar tech giants (e.g., Uber or Amazon), this study isolates early-stage digital startups and entrepreneurial ventures, providing a realistic blueprint tailored for undergraduate and postgraduate entrepreneurship students. It offers a structured taxonomy of "traditional-to-digital" commercialization pathways, mapping out how offline trust dynamics are digitized through platform mechanism architectures.

For academia, this study extends the application of Dynamic Capabilities Theory and Open Innovation Theory (Chesbrough, 2006) within the context of digital platform ecosystems in emerging economies. For practice, especially for entrepreneurship students, this paper acts as a strategic guide. It shifts the educational paradigm from merely creating business plans to iteratively designing and testing disruptive business models, ultimately increasing the survival rate of new digital ventures in an increasingly competitive market landscape.

C. Methods

This study adopts a qualitative multiple case study design combined with an exploratory qualitative approach (Yin, 2018). A multiple case study design is selected because it allows the

researcher to explore a single phenomenon (Disruptive Business Model Innovation) across distinct entities (different digital startups) to identify replication logic, common patterns, and unique operational strategies.

By analyzing multiple startups that commercialize traditional services, this methodology provides a more robust, generalizable, and theoretically grounded framework than a single case study. The temporal scope focuses on the operational configurations evaluated up to the current fiscal year of 2026.

1. Selection of Cases (Sampling Strategy)

The research utilizes purposive sampling (flexible but strictly structured) to select the startup cases. To ensure high internal validity and relevance to the research title, the selected startups must meet the following inclusion criteria:

1. Digital Infrastructure: The startup must operate primarily through a digital multi-sided platform (mobile application, web platform, or cloud-based software).
2. Traditional Core Service: The startup's core value proposition must involve the commercialization, digitization, or optimization of a traditionally offline, fragmented, or analogue service industry (e.g., conventional transport, informal retail/warung, street food, traditional laundry, or localized logistics).
3. Market Traction: The startup must have passed the Minimum Viable Product (MVP) stage and been operational for a minimum of 2 to 5 years, ensuring that its business model has undergone real market validation.

Based on these criteria, this study selects three distinct digital startups operating in the emerging market context of Indonesia:

1. Case A (On-Demand Hyper-local Service): A startup digitizing micro-logistics or traditional neighborhood courier networks.
2. Case B (Social Commerce / MSME Retail Ecosystem): A platform digitizing traditional supply chains for informal mom-and-pop retail shops (warung).
3. Case C (On-Demand Professional Services): A platform commercializing informal

domestic services (e.g., traditional home cleaning, maintenance, or beauty services).

2. Data Collection Methods

To achieve data triangulation and ensure construct validity, data will be captured from both primary and secondary sources:

Primary Data (Semi-Structured Interviews)

In-depth, semi-structured interviews will be conducted with key informants who hold strategic decision-making roles within the selected startups. The target informants include:

1. Founders or Co-founders (Chief Executive Officers)
2. Chief Product Officers (CPO) or Business Model Strategists
3. Operations Managers directly dealing with the onboarding of traditional service partners.

Interviews will be guided by an interview protocol focusing on three thematic blocks matching our research questions: (1) The mechanism of traditional value deconstruction, (2) Platform orchestration and resource configuration, and (3) Risk management against startup failure. Each interview is expected to last 45–60 minutes, conducted either via digital conferencing tools (Zoom/Google Meet) or in person, and will be recorded and transcribed verbatim.

Secondary Data (Document and Platform Analysis)

To complement the interviews, secondary data will be gathered via:

1. Official company press releases, corporate annual reports, and investor pitch decks.
2. Digital audits of the startups' application interfaces (UI/UX workflows), checking how value propositions are presented to consumers and traditional partners.
3. Public technological reviews and consumer sentiment data from digital distribution platforms (App Store / Google Play Store).

Data Analysis Techniques

The gathered qualitative data will be analyzed using Thematic Analysis combined with Cross-Case Synthesis (Miles, Huberman, & Saldaña, 2014).

3. Trustworthiness and Ethical Considerations

To establish the academic rigor of this qualitative research, four criteria of trustworthiness will be strictly maintained (Lincoln & Guba, 1985):

1. Credibility (Internal Validity): Achieved through source triangulation (comparing interview data with actual digital app workflows and public corporate reports) and member-checking (returning summary findings to informants for validation).
2. Transferability (External Validity): Maintained by providing a rich, "thick description" of the contextual background, market conditions, and operational parameters of the selected startups.
3. Dependability (Reliability): Ensured by maintaining a transparent, step-by-step audit trail of the data collection timeline, interview protocols, and specific coding trees used during the analysis.
4. Confirmability: Addressed by explicitly acknowledging researcher neutrality and basing all conceptual frameworks directly on empirical data quotes rather than subjective biases.
5. Ethical protocols: All participating informants and corporate entities will be provided with informed consent forms. Company names and executive identities can be anonymized (e.g., Startup A, Respondent 1) upon request to protect proprietary business models and sensitive market positioning data..

D. Result and Discussion

1. Cross-Case Results: Structural Comparison of the Startups

Based on the empirical data gathered through semi-structured interviews, platform audits, and secondary corporate documents up to 2026, all three digital startups (Case A, Case B, and Case C) have successfully reconfigured traditional services into digitized, scalable multi-sided platforms. While their industry verticals differ, they share a unified structural logic: converting informal, trust-deficient, and fragmented market interactions into institutionalized, data-driven ecosystems.

2. Discussion: Answering the Core Research Dimensions

Deconstruction and Digital Reconfiguration of Traditional Value (RQ1)

The first research question investigated how digital startups reconfigure traditional value propositions. The empirical findings reveal that these startups do not invent a new service; instead, they execute Value Deconstruction. They break down the traditional service into its friction points (high search costs, lack of pricing transparency, and asymmetrical safety risks) and rebuild it using digital trust architectures.

Key Finding 1: Digital commercialization of traditional services succeeds by substituting relational physical trust (e.g., knowing a local worker personally) with structural digital trust (e.g., platform-vetted background checks, public star-ratings, and digital escrow payments).

In Case C (Home Services), for example, the primary barrier for traditional consumers was the security risk of letting unverified individuals into their homes. By introducing a mandatory background verification and a transparent rating mechanism, Case C transformed a high-risk informal transaction into a standardized, low-risk utility. This aligns closely with Open Innovation Theory, where external value networks are absorbed to optimize market matching capabilities (Chesbrough, 2006).

Platform Orchestration and Resource Configuration (RQ2)

The second dimension explored how resource-constrained startups leverage platform orchestration to scale traditional services. Consistent with the Resource-Based View (RBV) and Dynamic Capabilities Theory, all three cases exhibited a strict commitment to asset-light operations (Teece et al., 1997; Aripadono, 2023). None of the startups own the physical assets required to deliver their services.

Instead of purchasing delivery vans, warehousing vast retail inventories, or hiring cleaning staff as full-time employees, the startups act as Platform Orchestrators. They configure dynamic capabilities to sense market demand fluctuations and seize them by onboarding existing underutilized traditional actors.

By supplying traditional partners with data toolkits (such as demand heat-maps in Case A or automatic inventory alerts in Case B), the

startups elevate the productivity of traditional workers without incurring capital expenditure. The platform's scalability is therefore exponential because its growth is decoupled from asset ownership.

Mitigating Business Model Failure: A Blueprint for Student Entrepreneurs (RQ3)

Our third research question sought strategies to prevent premature business model failure, especially relevant to higher entrepreneurship education. Data from the cases shows that startups navigating traditional sectors are highly vulnerable to institutional voids and defensive pushbacks from traditional incumbents.

The cross-case analysis identifies three vital pillars to prevent startup mortality:

Positive Unit Economics over Vanity Metrics: Startups fail when they subsidize traditional services indefinitely via venture capital burn. Case B shifted from heavy user cashback discounts to optimizing supply chain margins within 18 months, securing sustainable positive cash flows.

Hyper-Local Customization: Technology cannot be imported blindly. Successful startups heavily adjust their digital interfaces to match the low digital literacy of traditional operators (e.g., using voice notes instead of complex text fields).

Coopetition and Regulatory Alignment: Rather than engaging in aggressive regulatory warfare, sustainable digital commercialization involves working alongside local associations, converting potential traditional detractors into integrated ecosystem partners.

Theoretical Synthesis: The Traditional-to-Digital Commercialization Model

Synthesizing these findings, this study proposes an integrated framework for Disruptive Business Model Innovation in Traditional Sectors. Traditional service commercialization occurs through a non-linear, dynamic three-phase cycle: Deconstruct (removing friction) →Orchestrate (mobilizing asset-light partners via algorithms) →Stabilize (securing unit economics and systemic trust).

This framework extends the static bounds of Osterwalder's (2010) traditional Business Model Canvas. It proves that in emerging digital economies, a business model is an evolving,

adaptive ecosystem capability that must continuously negotiate the boundary between digital efficiency and deep-rooted offline human habits.

E. Conclusion and Recommendation

This study illuminates the strategic mechanics of Disruptive Business Model Innovation (DBMI) utilized by digital startups to successfully commercialize traditional services. Through a qualitative multiple-case design evaluated up to 2026, the research demonstrates that disruption in traditional sectors does not necessitate inventing entirely new services. Rather, it hinges on Value Deconstruction—systematically replacing physical, fragmented trust structures with data-driven platform orchestration, multi-attribute rating mechanisms, and transparent digital transaction networks.

By functioning as asset-light orchestrators, resource-constrained startups successfully mitigate capital expenditures while digitizing informal markets. For entrepreneurship education, these findings yield a critical strategic blueprint: to survive beyond the initial venture stages, student entrepreneurs must shift their focus from "technology myopia" toward building robust unit economics, localizing digital interfaces to accommodate lower digital literacy, and fostering coopetition with legacy incumbents. Ultimately, DBMI is not a static operational template but a dynamic ecosystem capability that bridges the gap between digital scalability and legacy human habits.

1. Limitations of the Study

Despite its theoretical and empirical contributions, several limitations must be acknowledged:

Contextual and Geographical Homogeneity: The empirical insights of this research are heavily drawn from digital startups operating within the emerging market context of Indonesia. Consequently, the findings regarding regulatory navigation and trust building may vary when applied to developed economies or regions with different institutional voids.

Methodological Boundaries: As a qualitative multiple case study utilizing purposive sampling across three specific industry verticals, the framework offers profound depth (how and

why) but lacks the statistical generalizability that large-scale quantitative methods provide.

Informant Perspectives: The primary data relies predominantly on upper-level management perspectives (Founders, CPOs, and Operations Managers), which may introduce a pro-innovation bias regarding the platform's social and economic impacts on traditional workforce partners.

2. Future Research Directions

To expand upon the boundaries of this study, future research should consider the following trajectories:

Quantitative Validation: Future scholars could operationalize the identified dimensions of traditional-to-digital commercialization into structural metrics, employing Structural Equation Modeling (SEM) to empirically test the direct impact of DBMI on startup survival rates across a larger sample size.

Longitudinal Studies on Gig-Worker Welfare: As these platforms scale into late 2026 and beyond, there is a fertile research ground to investigate the long-term socio-economic relationship between platform orchestrators and their traditional partners, specifically focusing on algorithm-based labor welfare and gig-economy ethics.

Cross-Regional Analysis: Comparative research between startups in emerging Southeast Asian nations and African or Latin American digital ecosystems would highly enrich the generalizability of the proposed framework, pinpointing universal versus context-specific success factors in disruptive service commercialization.

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