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The Subsidy Trap: Transforming SiBakul Jogja from an 'Incentive Distributor' into a Data-Driven Independent Digital Ecosystem

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Abstract
This case study aims to evaluate the sustainability of the government's digital platform, SiBakul Jogja, which faces fiscal risks due to its dependence on a shipping subsidy business model. This study analyzes the platform's performance paradox and formulates a transformation strategy from being merely an "incentive distributor" to becoming an independent digital ecosystem that has long-term resilience without relying entirely on the Regional Revenue and Expenditure Budget (APBD). This study applies a mixed-method approach. The analysis was conducted on secondary data on platform performance in 2025 (covering 314,433 transactions) and primary data from two separate surveys: a consumer behavior survey (n=188) and an MSME partner satisfaction survey (n=252) in the Special Region of Yogyakarta. The data was analyzed descriptively to identify patterns of supply-demand mismatch and subsidy dependency elasticity. The findings reveal the phenomenon of the "Subsidy Trap," in which 94.7% of consumers are absolutely dependent on the free shipping feature. Resource allocation inefficiencies were identified in the form of supply-demand mismatch: product supply was dominated by the Fashion category (25.1%), but 93.6% of real demand was for perishable Culinary products. The study concludes that a strategic pivot is needed through Design-Reality Gap mitigation, the application of a Focus Strategy in the B2G/Corporate market, and the integration of Quadruple Helix collaboration to share the logistics burden. This research makes a critical contribution to the E-Government literature by challenging the effectiveness of government marketplace models that mimic the private sector without venture capital support. This study offers a new framework for public digital initiatives to shift from *price wars* to monetizing institutional assets *(institutional trust)* and cross-sector collaboration.

Keywords: Digital Transformation, Subsidy Trap, Public Policy, Government E-Marketplace, Quadruple Helix, SiBakul Jogja.

Case Narrative

1. Introduction

The digital transformation of Micro, Small, and Medium Enterprises (MSMEs) has become a global priority agenda in response to the Industrial Revolution 4.0. In Indonesia, local governments often take on a dual role: not only as regulators, but also as active facilitators that provide digital infrastructure. One of the most prominent initiatives is SiBakul Jogja, an acronym for (Information System for the Development of Cooperatives and SMEs in the Special Region of Yogyakarta), a digital ecosystem platform developed by the Cooperative and SME Office of the Special Region of Yogyakarta. Before becoming a market hub, Sibakul was a data collection system for SMEs in DIY. However, the functions of SiBakul Jogja have expanded in line with the six aspects of development, namely human resources, institutions, production, finance, marketing, and digital marketing (Public Relations, 2022) . Unlike conventional government portals, which are generally only informative, SiBakul serves as a transactional market hub that integrates data collection, development, and market facilitation.

By 2025, SiBakul had recorded impressive statistical performance. The platform successfully facilitated 314,433 transactions with a market reach extending to 34 countries. This success was driven by aggressive market intervention policies in the form of shipping subsidies (free shipping) funded by the Regional Revenue and Expenditure Budget (APBD), which varies each year, recorded at around 3 billion in 2024 and decreasing to around 2 billion in 2025 (Benalindra, 2025) This strategy has proven effective in breaking down the logistical barriers that have long been the main obstacle for local SMEs to compete with products from outside the region. However, behind these success figures lies a fundamental vulnerability that threatens the platform's sustainability. The phenomenon of stalled digital initiatives is often criticized as a form of 'Digital Waste' or popularly referred to as 'Zombie Apps'. Safira & Hanan (2024) highlight this paradox in the case of 24,000 government applications in Indonesia that are considered to prioritize innovation prestige over functionality. This failure of sustainability, according to Heeks (2003) , occurs due to a 'Design-Reality Gap', where applications are built without a basis in real market needs, resulting in a lack of active users immediately after the ceremonial launch.

SiBakul faces a similar risk in the form of a "Subsidy Trap." Internal data shows an extreme level of dependency, with 94.7% of users taking advantage of the free shipping feature when transacting. Furthermore, the survey shows that 136 respondents stated that this facility greatly influenced their purchasing decisions, indicating that consumer loyalty is built on price incentives, not on the value proposition of the product or platform itself.

Figure 1: Use of free shipping when shopping
Source: https://sibakuljogja.jogjaprov.go.id/

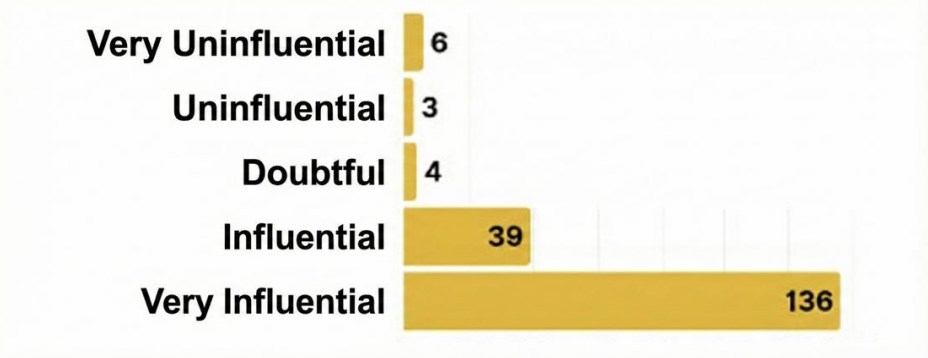

Figure 2: The impact of free shipping on shopping decisions
August – November 2025 period
Source: https://sibakuljogja.jogjaprov.go.id/

In addition to financial issues, there is inefficiency in resource allocation due to a mismatch between supply and demand. Although the local government is aggressively promoting the Fashion and Accessories sector as the category with the most product supply (25.1% of total products), market reality shows that 93.6% of transactions are dominated by Culinary products, see Figure 2. This puts SiBakul in a dilemma: it was designed as a showcase for creative products (crafts/fashion). The data in Figure 3 shows that crafts/fashion have the most products, but operationally function as a food delivery service that competes directly with giant private players.

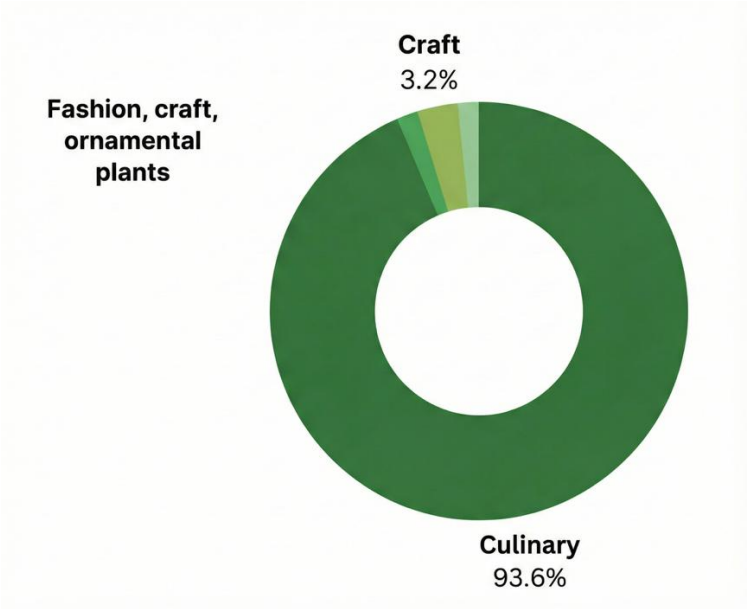

Figure 3: Types of products frequently purchased during the period
August – November 2025
Source: https://sibakuljogja.jogjaprov.go.id/

Figure 4. Variety of products on Markethub Sibakul 2025
Source: https://sibakuljogja.jogjaprov.go.id/

This case study aims to dissect this paradox. Unlike previous studies that generally focus on technology adoption, this article analyzes the sustainability risks of government platform business models based on subsidies. Using performance data and consumer behavior surveys from 2025, this study will formulate a transformation strategy for SiBakul to shift from merely being a "subsidy distributor" to becoming an independent digital ecosystem with a specific niche market and long-term resilience.

2. Case Context: The SiBakul Ecosystem

2.1. Platform Profile & Policy Mechanism

SiBakul Jogja (Information System for the Development of Cooperatives and SMEs in the Special Region of Yogyakarta) was launched as a strategic response by the local government to the challenges of economic digitalization, which was inaugurated in December 2019 by the Governor of DIY, (Yudi, 2023) . Unlike private e-commerce platforms that are purely profit-oriented, SiBakul is designed as a public service platform that integrates three main functions: data collection (database), development (business incubation), and market facilitation (market hub). The main feature that is the subject of this study is the "Free Shipping" facility. In this scheme, local governments establish Business-to-Government (B2G) partnerships with logistics aggregators and courier companies, including Grab, which has the highest usage, followed by Jogjakita, Difabike, PT. Pos Indonesia, Paxel, and finally Gojek, as can be seen visually in Figure 4. The government fully subsidizes shipping costs for every transaction that meets the minimum requirements, so that end consumers are not charged logistics costs. This policy aims to eliminate geographical distance barriers for local SME products.

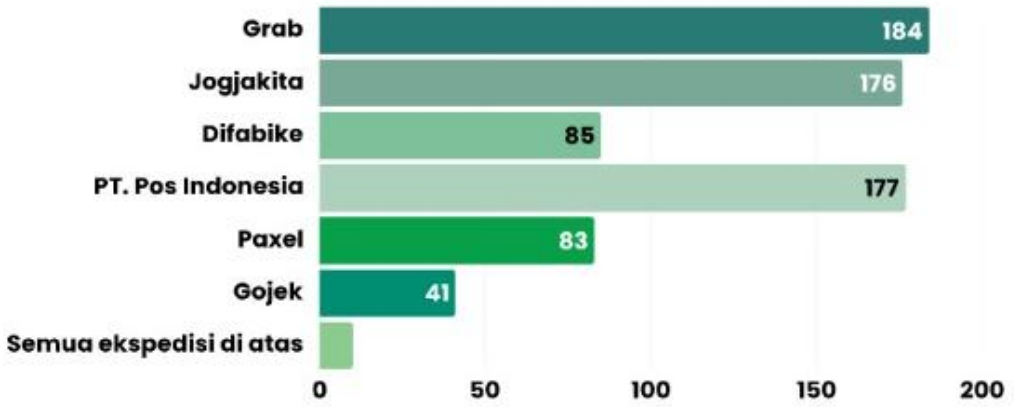

Figure 5. Shipping services previously used by Sibakul
Source: https://sibakuljogja.jogjaprov.go.id/

2.2. Performance Metrics

By the 2025 reporting period, this initiative had grown into a massive digital ecosystem. Internal data shows that SiBakul supports 3,060 verified SMEs that collectively offer 11,626 types of products in its digital catalog. The effectiveness of the subsidy stimulus is clearly evident from the volume of transactions that have taken place. The platform has successfully facilitated 314,433 subsidized transactions. In terms of distribution reach, SiBakul has successfully broken through local administrative boundaries, with product deliveries reaching 95% of districts/cities throughout Indonesia (395 out of 416 districts/cities) and has even penetrated exports to 34 countries (16.4% global reach). See Figure 5.

Figure 6. Performance Metrics 2025
Source: https://sibakuljogja.jogjaprov.go.id/

2.3. Ecosystem Composition (Supply Side)

The supply side structure within the SiBakul ecosystem is highly diverse, but shows a concentration in the creative industries sector. Based on product classification data, the Fashion and Accessories category occupies the largest share with 25.1% (2,805 products), followed by Ready-to-Eat Food at 21.8% (2,499 products), and Cakes/Snacks at 16.9% (1,863 products). The dominance of the fashion category reflects the government's initial development strategy, which focused on handicrafts and clothing products that have high economic added value and long shelf life.

2.4. User & Partner Demographics

This ecosystem is supported by an educated user base. The demographic profile of consumers shows that the majority of buyers (55.9%) have a bachelor's degree (S1), with 89.9% of the consumer base concentrated in the Special Region of Yogyakarta. On the provider partner side, the distribution of MSMEs is still concentrated in urban agglomerations, namely Sleman Regency (40.9%) and Bantul (20.2%), while suburban areas such as Kulon Progo and Gunungkidul still have lower participation rates (9.5% each). Figure 5 provides an overview of user and partner demographics.

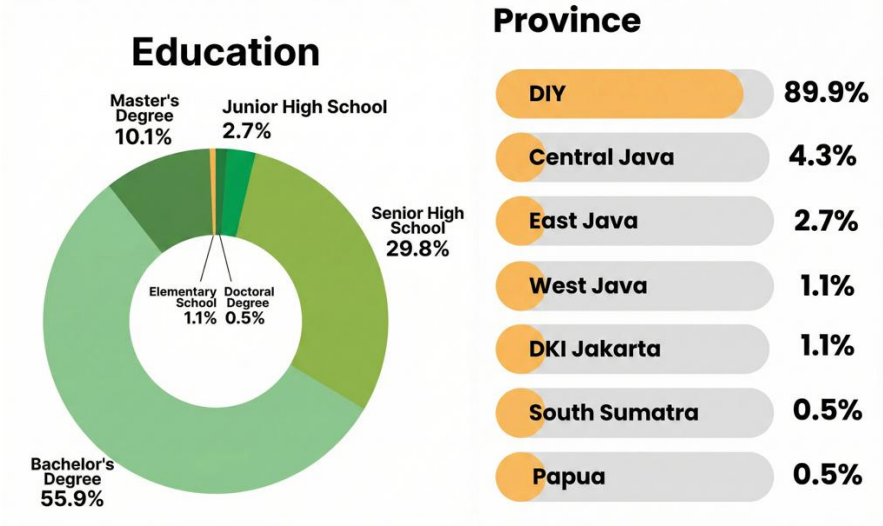

Figure 7 provides an overview of the demographics of users and partners**.**
Source: https://sibakuljogja.jogjaprov.go.id/

This operational context creates a unique landscape: a government platform with a transaction volume equivalent to that of a startup, but with a business model that is entirely dependent on regional fiscal allocations.

3. Findings and Discussion

3.1. The Subsidy Trap: Hyper-Sensitive Consumer Dependency

The most concerning finding from this study is the absolute level of user dependence on fiscal incentives. Survey data shows that 94.7% of consumers use the Free Shipping feature in every transaction. This finding is reinforced by customer value perceptions, with 136 respondents stating that the existence of shipping subsidies is a factor that is "very influential" on their purchasing decisions, far surpassing factors such as product quality or service speed. From a strategic management perspective, this condition indicates artificial customer loyalty. Consumers remain loyal not because of stickiness to the application's features or the unique product quality of MSMEs, but because of low switching costs due to price subsidies. The managerial implication is clear: if the local government revokes or reduces these subsidies due to limited regional budgets, the platform faces the risk of extreme churn rates. SiBakul is not building a loyal customer base, but rather "renting" traffic through an unsustainable cash burn mechanism.

3.2. Supply-Demand Mismatch: The Paradox of a "Clothing Store" Selling "Food"

Analysis of inventory and transaction data reveals serious resource allocation inefficiencies. Local governments, through their coaching programs, have successfully promoted the Fashion and Accessories sector to become the category with the largest supply, reaching 25.1% (2,805 products) of the total catalog. This strategy was based on the assumption that fashion products have high added value, are durable, and are easy to ship outside the region. However, market reality shows an anomaly. As many as 93.6% of products purchased by consumers are in the Culinary category. This disparity creates logistical inefficiencies. Culinary products, which generally have lower profit margins and high risk of damage (perishable), have become the main absorber of shipping subsidy budgets. SiBakul's logistics infrastructure, which is capable of delivering goods within 1-2 days (92.6%), has ended up "stuck" serving the local food delivery market, which is actually already served by the private sector (GrabFood/GoFood). Meanwhile, fashion and handicraft products, which should be export commodities or inter-island trade goods, are underutilized, as evidenced by data showing that the market is still dominated by local DIY purchases at 89.9%.

3.3 The Passive Ecosystem: Low Awareness of Organic Brands

The sustainability of a digital platform is largely determined by organic traffic. However, a survey of partners revealed that 81.7% of customers are passive; they do not actively search for products on the app but instead wait for promotional information or direct links from sellers. This correlates with consumer acquisition channels, where 41.5% of consumers learned about the platform from "Friends/Relatives" (Word of Mouth), while digital marketing channels (Digital Ads) only contributed 5.3%. Although Word of Mouth is positive, the reliance on push marketing from sellers indicates that SiBakul's brand awareness among consumers (B2C) is still weak. Consumers view SiBakul as a "cheap delivery tool," not as a "primary shopping destination."

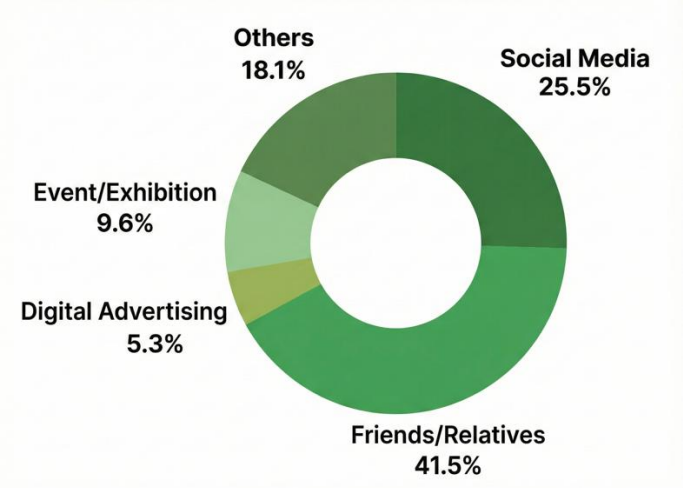

Figure 6. Sources of information in learning about SiBakul
Source: https://sibakuljogja.jogjaprov.go.id/

3.4 Strategic Implications

3.4.1 Mitigating the Design-Reality Gap

This study argues that maintaining a head-to-head model with commercial marketplaces is a flawed strategy. SiBakul's consumer profile, which is predominantly college-educated (55.9%) with high satisfaction levels (100% recommendation rate), represents social capital that has not been optimally utilized. SiBakul's fundamental failure to leverage this capital can be explained through the lens of the "Design-Reality Gap" (Heeks, 2003) . This theory, whose relevance is reinforced by Hamdi et al.(2025) and Hou et al. (2025) , postulates that government digital initiatives often collapse due to the gap between "idealistic design" (optimistic assumptions about infrastructure and user behavior) and "local reality" (institutional capacity and literacy limitations). In the context of SiBakul, this gap widens when an ambitious platform architecture is imposed without adaptive governance mechanisms, creating structural dysfunction that cannot be patched up with subsidies alone.
Maintaining a business model that relies on "burning money" shipping subsidies is tantamount to widening the gap of failure, as the platform design becomes misaligned with the dynamic fiscal reality. Therefore, an exit policy subsidy strategy is a necessity. As a solution, SiBakul's transformation must shift from a rigid technocratic approach to a participatory approach that adopts the Resource-Based View (RBV) from Barney's " . RBV theory suggests that a company's competitive advantage should not be built on transferable external resources such as subsidy budgets. Instead, advantages must be derived from inimitable internal assets. SiBakul's greatest asset is not subsidy funds, but rather Government Legitimacy (verified MSME data, standard curation, and legal compliance). Transformation must be directed towards monetizing this "Government Seal" as a guarantee of trust. However, for this trust to be operational, SiBakul needs to implement a participatory design—as suggested by Darmawan et al. (2025) which places ecosystem readiness (technology, culture, and governance) as the basis for development, rather than simply launching the system simultaneously (big-bang), which is prone to friction.

3.4.2 Avoiding the Stuck in the Middle Trap

SiBakul is currently trapped in a dilemma described by Cronshaw et al., (1994) as "Stuck in the Middle." This position is increasingly vulnerable in the digital era, as explained by Zhu et al. (2025) , where platforms that rely on excessive subsidies instead of building competitiveness distort market signals and trigger policy arbitrage (the behavior of business

actors who only pursue incentive rents without making real innovations). Attempting to compete head-to-head through a cost leadership strategy against tech giants without economies of scale is a recipe for long-term failure. To escape this trap, SiBakul must undertake Disruptive Business Model Innovation (DBMI) through the reconfiguration of dynamic capabilities ( ) . The most rational strategy is to adopt a "Focus Strategy" (Niche Strategy). Instead of serving the mass market that wants everything cheap, SiBakul must orchestrate its ecosystem to serve narrow but high-value market segments that are not well served by general marketplaces, namely the B2G (Business-to-Government) Market and the Corporate Gifting Market. Supply data shows the dominance of the Fashion and Accessories category (25.1%), which is stagnant in the retail market but has great potential in the corporate market if managed with an ecosystem integration approach. In this market, competition has shifted from "who has the cheapest shipping" to "who has standardized legal administration and curation." This strategy effectively turns logistical weaknesses into administrative strengths. Thus, SiBakul has transformed from a mere subsidized distributor into a solution-aggregating ecosystem infrastructure provider that offers added value in the form of data validity and regulatory compliance.

3.4.3 The Robin Hood Cross Subsidization

This strategy is based on the "Two-Sided Market" theory from Jullien et al. (2021) , which distinguishes between the money side and the subsidy side. SiBakul transaction data shows that the Culinary category has high demand and fast turnover (high velocity), making it a natural Money Side. Providing shipping subsidies in this category is a form of allocation inefficiency (deadweight loss). The proposed strategy is Asymmetric Pricing. The government imposes reasonable administrative fees or commissions on food sellers who are already selling well, and allocates this revenue to subsidize shipping costs for the Fashion and Crafts categories, whose markets are still weak (Subsidy Side). This approach creates distributive justice and ecosystem independence, where strong sectors support growing sectors, gradually replacing the role of the regional budget.

The technical implementation of this strategy requires the adoption of a more sophisticated cross-subsidization architecture than mere transaction fees. As found in in the Business Model Canvas (BMC) analysis of hybrid business entities, financial sustainability can be achieved by optimizing synergistic revenue streams where high-value commercial services explicitly support less profitable social missions (loss-leader). In a platform ecosystem, this model can be operationalized through tiered service levels or freemium schemes (Segundo et al., 2026) ; basic features remain free for micro-SMEs to maintain inclusivity, while premium features (such as market data analytics or priority ad exposure) are monetized for more established merchants. This diversification of revenue streams, which according to Sufa et al. (2025) must include advertising, commissions, and subscription services, forms what is known as the "Robin Hood" architecture. Within this framework, profit margins from premium services are not withdrawn as dividends but reinvested to fund capacity enhancements for small merchants, thereby transforming subsidies from mere "external government mandates" into self-sustaining and endogenous "business logic."

3.4.4 The Walled Garden Ecosystem

The government needs to implement a "Walled Garden" strategy to prevent economic value leakage (platform leakage) where transactions shift to other platforms (such as WhatsApp) while SiBakul is only used as a showcase. Referring to Mironov (2026) , this strategy creates a closed ecosystem where incentives (subsidies, exhibition access) are used as lock-in instruments that require transactions to be settled within the platform (on-chain). This ensures data sovereignty and the auditability of the regional budget. However, the implementation of this "Walled Garden" must be managed carefully so as not to become a stifling "Data

Monopoly" that stifles innovation. Sauvagerd et al. (2024) warn that closed ecosystems managed oligopolistically tend to create unilateral dependence, restrict data flow, and blunt competitive pressures that should drive service quality improvements. If SiBakul only becomes a "wall" that confines without providing added value, merchants will feel trapped rather than helped.

Therefore, SiBakul's "Walled Garden" structure must be balanced with participatory governance that involves various stakeholders and standard data transparency (Tian et al., 2025) . By adopting the framework Timalsina & Bhandari (2025) **,** SiBakul needs to implement interoperability standards that allow merchants to access and utilize their own transaction data. The goal is to transform the relationship from one of mere "subsidy dependency" to one of "mutually beneficial interdependence," where merchants are "locked in" to the platform not solely due to regulatory coercion, but because they gain exclusive access to market data and customer loyalty that they could not build on their own in a fragmented manner.

3.4.5 The "Quadruple Helix" Collaboration

The limitations of the fiscal space of the regional budget in covering logistics subsidies must be overcome by moving beyond the traditional public-private partnership model towards a Quadruple Helix (Government, Industry, Academia, and Community) collaboration structure. See Figure 1. Andriienko (2025) asserts that modern innovation ecosystems demand a fundamental shift from a vertical "Command-and-Control" architecture to a horizontal "Co-creation" process. Within this framework, SiBakul no longer positions the government as the sole dominant actor (Aggarwal & Sindakis, 2022; Cloitre et al., 2023) , but rather as a facilitator that equalizes the roles of all stakeholders.

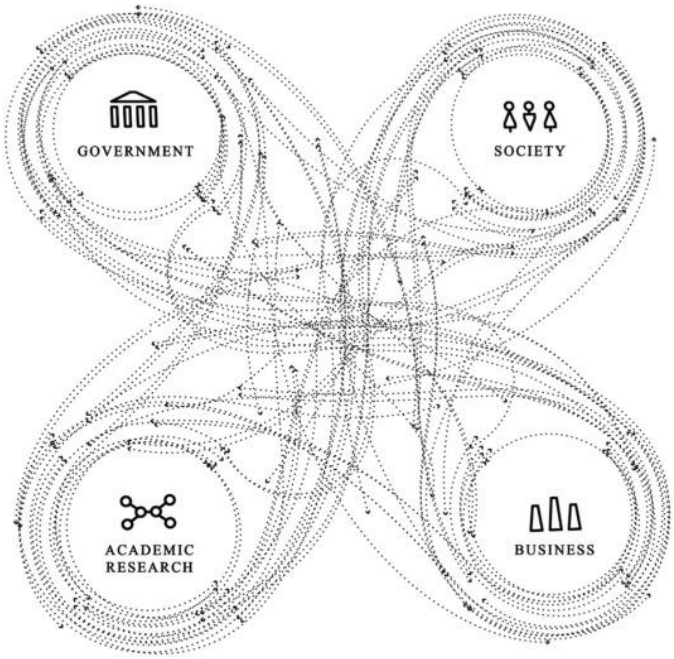

Figure 1. The Quadruple Helix Model developed by Carayannis and Campbell and further developed by (Aggarwal & Sindakis, 2022; Cloitre et al., 2023)

The technical implementation can begin with a "Logistics CSR Sharing" scheme. However, learning from the findings of on the supply chain, the role of academics in this helix should not stop at theoretical research, which often fails to be translated into practice. Universities must be actively involved in technology trials and digital competency training for traders directly in the field. On the other hand, the governance of CSR funds from private partners and state-

owned enterprises needs to be strengthened. Sabaruddin et al. (2025) even suggests expanding towards a Hexahelix model (involving the media and law enforcement) to ensure transparency and public accountability in the management of these mutual aid funds.

Furthermore, the transformation of SiBakul must anticipate global sustainability demands by adopting the Quintuple Helix elements that incorporate environmental dimensions. As suggested by , SiBakul's logistics infrastructure needs to be designed to support environmentally friendly practices (e.g., incentives for reusable packaging), so that the innovations that occur are not only economically viable but also ecologically sustainable. Finally, to ensure that this cross-sector collaboration does not become a new inefficiency, the application of Cost-Effectiveness Analysis (Jonid & Matore, 2024) is a mandatory tool for SiBakul leadership to audit the real impact of every rupiah invested on improving merchant capabilities.

4. Conclusion

This case study confirms that the quantitative success of SiBakul Jogja, as reflected in transaction volume and market reach, is fragile because it is built on the foundation of a "Subsidy Trap." Data analysis proves the hyper-dependency of users on fiscal incentives and a strategic mismatch between development priorities (Fashion/Crafts sector) and market demand realities (Culinary sector). Without business model transformation, this platform faces the risk of becoming a "Zombie App" or sustainability failure (design-reality gap) when regional fiscal capacity contracts.

Managerial Implications & Policy Recommendations
To ensure the platform's relevance and independence in the future, the Regional Government is recommended to reorient its strategy through the following steps:

- Internal Resource Transformation (Mitigating the Design-Reality Gap): Stop relying on vulnerable external resources (APBD subsidies) and shift to monetizing unique internal assets in the form of government legitimacy. SiBakul must function as an institutional intermediary through curation and legality, not merely as a logistics intermediary.
- Pivot to Niche Market (Focus Strategy): Avoid getting stuck in the middle against commercial marketplaces by shifting the focus of the Fashion/Crafts category to the B2G (Business-to-Government) and Corporate Gifting markets. These markets prioritize legality and quality over cheap shipping costs.
- Quadruple Helix Collaboration: Implement a logistics cost-sharing scheme through CSR funds from private partners and state-owned enterprises, transforming the platform from a government cost center into a robust collaborative ecosystem.

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