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Article

The Role of Government Support in Developing Startup Ecosystems: A Case Study of Yogyakarta and Surakarta, Indonesia

Azinuddin Ikram Hakim[1,2], Mohamad Fauzi Sukimi[1]* & Abdul Hafiz Ab Rahman[1]

[1]Department of Anthropology and Sociology, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia
[2]Department of Sociology, Universitas Islam Negeri Walisongo Semarang, Semarang 50185, Indonesia

*Corresponding Author: fauzi@ukm.edu.my

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Abstract: Technology startups in Indonesia have experienced rapid growth in recent years, reflecting a broader global trend in which startups have become central drivers of innovation and economic development. This study explores the critical role of government support in shaping and developing startup ecosystems, focusing on two emerging innovation hubs in Indonesia: Yogyakarta and Surakarta. Drawing from qualitative data, including interviews, field observations, and document analysis, the research examines how government initiatives, public policies, and multi-stakeholder collaboration contribute to the growth of local startups and creative enterprises. The study highlights key strategies such as government support, incubation programs, and infrastructure development that foster a supportive environment for entrepreneurial activity, based on the frameworks of governance and institutional theory. The findings indicate that while government involvement is essential, sustainable ecosystem development requires synergistic partnerships among government, universities, the private sector, and civil society, reflecting the principles of the Triple Helix model. This paper contributes to the broader discourse on innovation governance and offers policy insights relevant to other developing regions seeking to strengthen their startup ecosystems.

Keywords: Government support; startup ecosystem; policy; incubation; regional development

Introduction

Technology startups in Indonesia have shown a rapidly growing trend (Darmawan et al, 2020), particularly within the digital economy sector. The demand for innovation and technology across various industries continues to rise (Hakim & Sukimi, 2022). In several cases, technology startups have emerged as key drivers of innovation and economic growth in many countries (Utoyo, 2016; Scaruffi, 2016). The rapid advancement of information technology has intensified the need for innovative solutions across multiple sectors (Sagar et al., 2025). These solutions are increasingly provided by technology startups that introduce new products and services, fundamentally transforming the ways we work, communicate, and conduct business. Consequently, Indonesian technology startups are becoming increasingly vital to the development of the digital economy.

According to Setiyawan and Pangestu (2019), the Indonesian government began establishing the Ministry of Creative Economy in 2015. The government's awareness of the digital creative industry emerged in response to the growing wave of startup development. This ministry was formed to support the president in designing, formulating, and accelerating policies related to the creative economy.

Indonesia has experienced rapid globalization and significant growth within the Southeast Asian region (Permadi, 2017; Karina et al, 2022), which has influenced the development of entrepreneurship—particularly in digital platforms, internet-based ventures, and human capital. Abdillah (2019) highlights the emergence of numerous startups in Indonesia that have reached unicorn and even decacorn status within the digital ecosystem. Based on data from Startup Ranking (as cited in Abdillah, 2019), Indonesia recorded approximately 2,102 startups in 2019, ranking fifth globally. This reflects not only a remarkable surge in startup growth but also the continued momentum of Indonesia's digital entrepreneurial landscape.

In line with Husnayain and Mawardi (2018), the development of startups in Indonesia has been notably rapid, marked by the continuous emergence of new privately-owned ventures each month. The acceleration of digital technology adoption has fueled the growth of startups, contributing to job creation and playing a crucial role in national economic development (Riyanto & Jamaaluddin, 2018). Startups generate profit by addressing societal challenges through innovative solutions. Popular digital startup platforms in Indonesia include Gojek, Grab, Tokopedia, Shopee, Ruangguru, Halodoc, OVO, and others, which provide goods and services through digital technologies (Karina et al., 2022).

The growth of creative and innovative entrepreneurship offers potential solutions to various societal issues such as poverty, social inequality, unemployment, and resource scarcity (Noventri et al., 2021). For example, the rising unemployment rate in Indonesia can be addressed by promoting entrepreneurial knowledge and digital technology-based initiatives. This enables communities to establish new startup ventures, thereby creating new job opportunities (Balik et al., 2019). Such initiatives can significantly contribute to the advancement of innovation, technological utilization, and the development of new products that drive greater economic returns (Noventri et al., 2021).

Indonesia is one of the largest digital economies in Southeast Asia. In 2019, its digital market was valued at USD 40 billion and is projected to reach USD 124 billion by 2025, nearly tripling in size (Karina et al., 2022). Minister of Creative Economy, has expressed strong confidence in the pivotal role of digital startups in the country's economic growth. Despite this potential, the success rate of startups remains relatively low, indicating the urgent need for more inclusive and extensive incubation programs, alongside supportive policies to foster a favorable business climate.

Achieving success in business remains a key aspiration for many entrepreneurs. However, a substantial proportion of startups face failure due to various factors. Statistics from 2022 reveal that approximately 90% of startups fail. Key reasons include misreading market demand (42%), running out of funding (29%), weak founding teams (23%), and being outcompeted (19%). Moreover, regulatory frameworks specific to startups remain limited, and legal clarity is still lacking for startup founders and business operators (Makmu, 2023).

The objective of this article is to examine how government support influences the formation and sustainability of startup ecosystems in Indonesia, with a particular focus on Yogyakarta and Surakarta. By analyzing the policy instruments, institutional frameworks, and collaborative programs implemented by local governments, this study seeks to assess the extent to which public initiatives facilitate entrepreneurial growth, innovation diffusion, and ecosystem resilience.

Literature Review

1. Governance Theory in Innovative Economic Development

In the contemporary landscape of economic policy and innovation, the concept of governance has gained prominence over traditional notions of government. Whereas government implies a centralized, hierarchical control by the state, governance refers to a more decentralized, network-based coordination involving both state and non-state actors (Pierre & Peters, 2000). This conceptual shift reflects the increasing complexity of modern socio-economic systems, where market dynamics, civil society, and global institutions play substantial roles in shaping policy outcomes. In this context, governance is understood not merely as decision-making within formal political structures, but as the process of steering society through collaborative mechanisms that transcend the conventional boundaries of the state (Kooiman, 1993). Kooiman identifies governance as a mode

of societal steering that involves a combination of hierarchical authority, market mechanisms, and horizontal networks, thereby emphasizing the plurality of actors and the interdependence among them.

This theoretical lens is particularly relevant to the development of startup ecosystems, where innovation emerges not solely from state directives but from dynamic interactions among entrepreneurs, private investors, research institutions, and policy actors. The government's role is thus evolving from being a direct provider of services to becoming a facilitator or orchestrator within a broader innovation network (Jessop, 2003). This relationship is emphasized by studies that have investigated the impact of government policies on startup growth (Mishra et al., 2024), In Indonesia, national programs such as "1000 Startup Digital" and "Kampus Merdeka" reflect this collaborative governance approach (Andriyati & Zulaikha 2023; Anggara 2023; Yustika 2025). The Indonesian government has established three key pillars to promote digital transformation, namely the development of digital infrastructure, the formulation of supportive regulations, and the cultivation of a robust digital ecosystem. These efforts are reflected in various initiatives designed to create entrepreneurial opportunities for young Indonesians in the digital sector, such as the Gerakan 1000 Startup Digital and Startup4Industry programs (Wahyudi et al., 2022). These initiatives aim to cultivate entrepreneurial talent and strengthen innovation capabilities through partnerships between government bodies, universities, corporations, and civil society organizations. However, while such programs demonstrate an intent to build co-governance structures, the extent to which they achieve genuine coordination and mutual learning across sectors remains an open question requiring critical analysis.

2. Institutional Theory and the Structuring of Startup Behavior

The emergence and behavior of startups are not solely driven by market logics or entrepreneurial agency but are deeply embedded in institutional environments. New institutionalism provides a valuable theoretical framework for analyzing how formal and informal institutions comprising rules, norms, and shared beliefs shape organizational practices (Scott, 2001). According to Scott, institutions operate through three interrelated pillars: the regulative, which involves laws and enforcement mechanisms; the normative, which encompasses values and norms that prescribe appropriate behavior; and the cognitive, which reflects shared mental models and taken-for-granted assumptions within a field. These pillars not only constrain but also enable organizational action by providing stability, legitimacy, and predictability.

DiMaggio and Powell (1983) further conceptualize how organizations, particularly in highly institutionalized environments, undergo institutional isomorphism a process by which they become increasingly similar due to coercive, normative, and mimetic pressures. In the context of Indonesia's startup ecosystem, coercive pressures are evident in state-imposed regulations such as licensing, taxation, and data security compliance, which startups must navigate to gain legitimacy. Normative pressures emerge from professional communities and educational institutions such as incubators and universities that impose expectations about what constitutes a "viable" or "innovative" startup (Rukmana 2024; Yuliana et al 2024).

These institutional dynamics significantly influence how startups formulate strategies, build teams, seek investment, and engage with stakeholders. Rather than operating purely through entrepreneurial innovation, startups in Indonesia are shaped by a complex interplay of regulatory constraints, normative templates, and cultural imitation (Wahyudi et al 2022). Understanding these institutional forces is essential for assessing the effectiveness of government policies and for designing support mechanisms that align with the realities of entrepreneurial life in diverse socio-economic contexts (Sumengkar et al 2023).

Methodology

The methodology employed in this study is qualitative in nature, utilizing a case study approach as the primary analytical framework. As part of qualitative research, case studies emphasize an in-depth and detailed exploration of specific cases or particular instances (Creswell, 2007). Yin (2009) offers a more technical definition, describing the case study as an empirical inquiry that investigates a contemporary phenomenon within its real-world context, especially when the boundaries between the phenomenon and its context are not clearly defined. Similarly, Hartley (2004) explains that case study research involves a detailed examinationoften supported by data collected over time of phenomena situated within their context, with the

objective of uncovering the contextual and processual elements that shed light on the theoretical issues under investigation.

The data were collected by the first author during fieldwork conducted in two locations: Surakarta and Yogyakarta, Indonesia between 2021 and 2025. To follow the dynamic development of startup ecosystems from the perspectives of government and business incubators, embedded participant observation and in-depth interviews were employed as data collection methods. A total of three government representatives and four incubators were selected for their informative insights into government support for startup development in Yogyakarta and Surakarta. The government officials and incubator representatives involved have held structurally significant roles for an extended period, while the participating startups vary in age, ranging from 1 to 7 years. In-depth interviews were conducted as a means to facilitate direct interaction between the researcher and informants, allowing for clarification of questions and enabling the researcher to obtain immediate and comprehensive responses (Hamzah, 2010). The data gathered reflect accurate and well-substantiated representations based on the informants' explanations.

The choice of Surakarta and Yogyakarta as field sites was grounded in their strategic and cultural significance within Indonesia's evolving entrepreneurial landscape. Surakarta, also known as Solo, represents a unique case of regional development policy and urban regeneration, where the local government has actively embraced innovation-led development, particularly through creative economy initiatives and the establishment of co-working spaces and business incubators (Bernardus et al 2024; Wajdi et al 2021). Meanwhile, Yogyakarta has long been recognized as an education hub and cultural city with a vibrant youth population, making it a fertile ground for entrepreneurial activity, particularly among university graduates and members of creative industries (Darmawan 2020; Hakim & Fauzi 2022). These two cities offer complementary perspectives Surakarta with its state-driven incubation support and Yogyakarta with its grassroots entrepreneurial vibrancy allowing for a more nuanced understanding of how local context, institutional support, and social networks interact to shape startup ecosystems.

The analysis of interview data proceeded in several stages. Firstly, the interviews were transcribed from Indonesian into English. The next stage involved examining the data thematically, looking for similarity and difference in accounts. This process generated some key themes. Quotes from interviews were grouped under these key themes and exemplars were chosen for detailed critical interpretation, which was conducted using a governance and institutional theoretical framework.

No	Name	Background	Organization field	Location	Position	Tahun Aktif
1	Informant Gov R	Governance	Government	Yogyakarta	Head	2020
2	Informant BI MF	Social Welfare	Business Incubator in university	Yogyakarta	Director	2017
3	Informant BI A	Public administration	Business Incubator privat	Yogyakarta	Staff	2020
4	Informant Gov M	Accounting	Government	Surakarta	Coordinator	2016
5	Informant Gov RI	Governance	Government	Surakarta	Head	2023
6	Informant BI CS	Management	Business Incubator in university	Surakarta	Head	2021
7	Informant BI KB	Education	Business Incubator in university	Surakarta	Head	2021

Source: Author's field study (2022-2025)

The Findings & Discussion

Based on institutional theory, government structures operate through three pillars: the regulative, which includes rules and enforcement mechanisms; the normative, which encompasses shared values and norms that define appropriate behavior; and the cultural-cognitive, which shapes how actors perceive and interpret their roles in society (Scott, 2011). Governments hold a strategic interest in fostering economic development

(Ehigiamusoe et al., 2025). To build a resilient economy, governments are expected to increase investment and provide strong support through public-private partnerships, initiatives, and policies in the areas of innovation and entrepreneurship particularly targeting small to medium enterprises and startups (Sopjani, 2019).

The formation of Indonesia's Ministry of Creative Economy in 2015 marked a growing governmental awareness of the rising wave of digital creative industries, largely fueled by the startup phenomenon (Setiyawan & Pangestu, 2019). The ministry was tasked with assisting the president in designing, launching, and accelerating creative economy policies. Through this ministry, the government aimed to shift the nation's dependency away from the exploitation of natural resources toward the development of human capital and creative ideas. Institutional support and state involvement thus become critical in fostering entrepreneurship at the local level.

Jokowi, as the Indonesian President (2014–2024) has also supported startup development through a visionary goal to establish Indonesia as "The Digital Energy of Asia." One key initiative under this vision was the launch of the National Movement of 1000 Digital Startups, which aims to produce high-quality startups that address societal challenges in Indonesia (Indozone, 2019; Hakim & Fauzi 2022). As Sopjani (2019) emphasizes, startups play an important role not only in expanding market growth and driving economic performance but also in creating new opportunities for national development.

The program seeks to develop 1,000 new startups as a foundational step toward building a robust digital economy, with youth as its primary drivers. The initiative focuses on critical sectors such as agriculture, education, healthcare, tourism, logistics, and energy, and has been implemented across ten major cities: Jakarta, Bandung, Surabaya, Yogyakarta, Semarang, Malang, Medan, Bali, Makassar, and Pontianak. Each city hosts co-working spaces designed for technology, creative, and cultural communities, offering startup actors a platform for collaboration and innovation to meet public needs (Indozone, 2019; Zaky et al 2018).

From a policy perspective, the government has actively encouraged public organizations, universities, and local authorities to establish business incubators as part of a broader strategy to support startups and micro, small, and medium enterprises (MSMEs) (Yuana et al., 2016; Rahman & Sodikin, 2025). This policy direction is evidenced by the increasing presence of business incubators across various institutional and governmental settings, reflecting a state-level commitment to strengthening incubation services in the domains of entrepreneurship and innovation (Darmawan, 2019). In this study, several business incubators both government-affiliated and privately operated based in Yogyakarta and Surakarta were selected as case examples, offering insights through interviews into their operational models and policy alignments..

Based on Field interviews in this study included Informant Gov R as a part Department of Communication and Informatics in Yogyakarta. He outlined various forms of government support and initiatives aimed at accelerating startup development. Informant Gov R noted:

> *"The potential of the digital creative industry in Yogyakarta is very high. This is evident from the extraordinary growth of co-working spaces in Jogja. It shows that there are many actors, activities, and market potential, which together indicate that this ecosystem can continue to thrive."*

Informant Gov R further emphasized the crucial role of universities in supporting creative ideas. For example, Gadjah Mada University (UGM), houses a business incubator known as Creative Hub within its Faculty of Social and Political Sciences. Amikom University hosts an incubator named APB, while other campuses have similar initiatives. Independent incubators outside academia, such as Block71, also contribute to the startup ecosystem.

In addition, various independent community groups, such as the Digital Creative Association, are actively involved in organizing events and fostering sub-sectoral startup collaboration. These collectives serve as vital platforms for gathering creative ideas and strengthening the foundation of Indonesia's digital creative industry.

However, a report by Aditif (2021) highlights that startup development in Yogyakarta would not be possible without foundational public infrastructure support from the government. Recognizing the challenges and economic potential of the startup sector, the Indonesian government introduced Presidential Regulation No. 72 of 2015 concerning the Creative Economy Agency (BEKRAF). This regulation aimed to provide institutional pathways for the creative startup industry to flourish in Indonesia.

The regulation specifically focuses on promoting new creative products across various fields, including application development, digital games, architecture, interior design, visual communication design, fashion, film, animation, video, photography, crafts, culinary arts, music, publishing, advertising, performing arts, fine arts, television, and radio. One of the key outcomes of this regulation has been the establishment of institutional support systems such as Jogja Digital Valley, which continues to play a central role in developing the startup ecosystem in Yogyakarta (Aditif, 2021).

In the context of Surakarta (Solo), insights from key informants (BI CS and BI KB) highlight the city's unique appeal as a multidisciplinary hub for creative talents and entrepreneurial development. Informants emphasized that Solo has long attracted artists and individuals from diverse professional backgrounds including agriculture, health, education, and the creative economy making it a fertile ground for cross-sectoral innovation and collaboration. As one informant (BI CS) noted, "Solo attracts artists and people from various disciplines agriculture, health, education, and the creative sector making it a truly multidisciplinary city." This dynamic environment is further supported by the presence of innovation and incubation infrastructure such as Solo Techno Park, the UNS Innovation Hub, UMS Incubator, and several other business incubation initiatives. According to BI KB, these spaces serve as vibrant ecosystems where entrepreneurs, artists, technologists, and game developers converge, backed by programs designed to foster innovation and entrepreneurial growth in the city.

At the local level, the Surakarta city government has begun to provide structured support for micro, small, and medium enterprises (MSMEs) as well as startups through training programs, access to capital, and digital market facilitation (BPS Kota Surakarta, 2023). According to Daniarko and Nurhadi (2024), Solo Technopark is part of a government-led initiative serving as a hub for technology and innovation, strategically located in the heart of Central Java. The institution has actively positioned SMEs and startups as core elements in its developmental agenda, fostering a competitive and dynamic ecosystem through industrial collaboration. Furthermore, it maintains strategic partnerships with higher education institutions such as Universitas Sebelas Maret (UNS), polytechnics, and local industries to implement a triple-helix model linking academia, industry, and government (Bappeda Surkarta 2021).

Beyond Solo Technopark, several university-based incubators have also emerged, including those affiliated with UNS, ISI Surakarta, UMS, and AK Tekstil Solo. These campus incubators host a range of annual activities such as incubation programs, business plan competitions, and entrepreneurship exhibitions (Daniarko and Nurhadi 2024). The proliferation of incubators has contributed to the rise of a more dynamic startup community in Surakarta, particularly since 2015. Community-driven initiatives such as Startup Grind Solo, IDStartup, and Komunitas Digital Kreatif Solo have played pivotal roles as social connectors among young entrepreneurs, software developers, and micro-investors. (Trihananto et al 2024).

1. Government Support for Startup Companies in Yogyakarta and Surakarta

The government plays a vital role in supporting the growth of startups in Yogyakarta and Surakarta. Various forms of support are provided, including training, incubation, financing, and activity-based programs initiated by government agencies. While several startups included in this study have benefited from government support, others have yet to experience its full impact.

Informant Gov R from the Department of Communication and Informatics (DISKOMINFO) of Yogyakarta described several initiatives implemented to support and develop startups, such as Innovation Garden, Startup Academy, and 1000 Startups, which are part of the government's incubation schemes. These programs are designed to provide training, organize workshops and competitions to stimulate creative ideas among startup founders, and assist them in connecting with potential investors to scale their businesses. Gov

R further explained that his office has initiated a digital business incubator in Yogyakarta, facilitated business licensing, and acted as an intermediary between startups and investment funds. He stated:

> *"Initially, we try to explore the ideas of startup actors, then establish an incubation process, train them for a year until they are ready to be introduced to investors, and then we invite investors to meet them."*

Similar patterns can be observed in the various programs implemented by business incubators in Solo, both under government institutions and university-based entities. For instance, a university-affiliated incubator (as represented by informant Gov CS) has developed a tiered incubation scheme designed to identify and nurture high-potential startups at different stages of development. The program includes a pre-startup track targeting idea-stage ventures, a startup track for operational early-stage businesses, and an innovation support track that focuses on strengthening the startups' technological and creative capacities. This structured approach reflects an intentional effort to accommodate diverse entrepreneurial trajectories and to ensure continuity in startup development from ideation to innovation-driven growth. According to one university-based incubator representative (Gov CS), the institution adopts a comprehensive incubation model that combines funding support and mentoring tailored to the developmental stage of the startup.

> *"We provide funding and mentoring during the incubation process for pre-startups (business ideas), startups (already operational), and for research-based initiatives, we offer support through the Technology Innovation Program. One of the key innovation entities involved is the Center of Excellence in Science and Technology (Pusat Unggulan Iptek). Through this scheme, we help to generate startups, nurture them, and develop their businesses within the business incubator."*

Another notable initiative is the implementation of national-level programs aligned with higher education curricula, particularly those driven by central ministries. One such program is Wirausaha Merdeka (Independent Entrepreneurship), which seeks to foster entrepreneurial mindsets among university students (Suranto & Rahmawati, 2022; Chayo et al, 2025). In Surakarta, between 2022 and 2024, two major universities were entrusted to run this program under the directive of the Ministry of Higher Education. The initiative was intended to cultivate entrepreneurial awareness and capacity among students as part of a broader effort to stimulate entrepreneurship across Indonesia. As noted by informant BS,

> *"For example, the Merdeka Belajar Kampus Merdeka (MBKM) Entrepreneurship Program, initiated by the Ministry of Education, includes activities and incubation-like processes: students undergo a six-month entrepreneurship learning experience equivalent to 20 academic credits (SKS). This process closely resembles business incubation. The key differences lie in the depth of engagement and the needs-based (by order) approach that is characteristic of formal incubation programs".*

The Wirausaha Merdeka program, initiated by the Ministry of Education, aims to cultivate students' interest, mindset, and basic competencies in entrepreneurship. It seeks to enhance entrepreneurial experience, improve employability, and strengthen the capacity and quality of university graduates. A key benefit of the program is that it offers students practical entrepreneurial experience and the opportunity to learn beyond the classroom. (Chayo 2024). Entrepreneurship programs in both Yogyakarta and Surakarta, along with activities carried out through national and local government policies, programs, and incubation initiatives, have contributed to the development of an innovation culture, entrepreneurship, and a growing creative industry (Marsaoli & Kusumasari, 2022).

3. Government Collaboration in Developing Startups

Structurally, collaboration and networking among key actors and stakeholders are critical in the implementation of entrepreneurship programs and policies (Ranga & Etzkowitz, 2013). In Surakarta, for example, the government actively builds networks and partnerships with universities and local communities

to support business incubation and mentoring programs. As explained by a government representative (Gov M),

> *"To execute incubation and mentoring concepts, we build networks with business communities in Surakarta, these communities design the curriculum, provide mentors, while we handle program outreach, media marketing, and provide physical space and office facilities for startup and MSME tenants."*

This model reflects a collaborative governance approach where community actors play an active role in co-producing incubation services. From the perspective of incubators, a key informant BI A in Yogyakarta emphasized the strategic importance of government collaboration in expanding the startup ecosystem and enabling integration with global innovation markets. Through various stakeholder engagement activities, including joint events and policy dialogues, the incubator fosters triadic collaboration among government institutions, academia, and entrepreneurial actors. Such synergy strengthens institutional connectivity, enhances resource mobilization, and accelerates ecosystem development in the region.

Similar to the developments in Yogyakarta, university-based incubators in Surakarta have actively engaged in reciprocal collaboration with government institutions. These engagements are often formalized through mandates from national ministries, such as the Wirausaha Merdeka program, implemented as part of a directive from the Ministry of Higher Education. Additionally, other programs initiated by various ministries also focus on the development of startups and MSMEs in the Solo region. As stated by informant CS,

> *"We also try to reach out and maintain ongoing communication with government agencies through collaborative program development. For example, we were entrusted by the Ministry of Social Affairs to run the PROCUS program a social incubation initiative serving 500 MSMEs in Karanganyar and 20 MSMEs in Tegal. We have also collaborated with the Ministry of Cooperatives, the Ministry of Tourism and Creative Economy, and more recently, the Ministry of Finance, all primarily to support MSME mentoring."*

These collaborations exemplify a multi-ministerial engagement strategy, in which incubators act as key intermediaries connecting local entrepreneurial actors with national development agendas (Ramli & Wahid 2021; Hakim et al 2024). The interaction between government, universities, and startups in this study aligns with the Triple Helix Model proposed by Etzkowitz (2002). This model conceptualizes the interaction among universities, government, and industry as a dynamic framework for fostering innovation. Universities contribute knowledge-based economic activities, while governments facilitate infrastructure and regulatory frameworks, enabling universities to create superior environments for technology development and product innovation. Innovation, according to this model, is not merely about interaction but depends on the intensity of collaboration among these actors.

Etzkowitz (2002) positions the government as a central regulatory authority, industry as the engine of economic application, and the university as the intermediary linking both. This balanced relationship ensures a cohesive ecosystem for innovation. In the context of a knowledge-based economy, universities serve as key actors in fostering entrepreneurship, developing human capital, and incubating new business ventures.

Universities are able to fulfill this role due to supportive government policies, financial backing, and research incentives. Research outcomes can be commercialized, patented, and integrated into industry (Etzkowitz & Leydesdorff, 1996). Furthermore, business incubators often extensions of universities or industry serve as effective tools for supporting the growth of technology-based enterprises (Perdani et al., 2018).

In conclusion, collaboration between the government, startups, private incubators, and universities is essential for driving innovation and product development within the startup sector. Government support through regulatory policies, infrastructure, and developmental programs plays a foundational role in ensuring the sustainability and success of startups. Moreover, as social capital is formed through these interactions, it fosters community resilience and generates significant implications for both social and economic development. (Othman 2025)

3. Recommendations for Government Policy in Supporting Startups

So far, the programs initiated between 2015 and 2025 have been actively promoted and, in several cases, have shown positive outcomes. Moreover, government involvement in startup and MSME incubation activities has been established through formal legal and regulatory frameworks. Specifically, the Ministry of Cooperatives and Small and Medium Enterprises issued *Peraturan Menteri Koperasi Usaha Kecil dan Menengah (Permenkop UKM) No. 14 tahun 2023* concerning Norms, Standards, Procedures, and Criteriafor the Implementation of Incubation Development. This regulation provides a structural foundation for incubation efforts across Indonesia. Under this policy, business incubators are mandated to support the growth and development of MSMEs by offering structured mentoring, capacity building, and performance enhancement programs (Rahman & Sodikin, 2025). The legal codification of incubation practices demonstrates the government's commitment to institutionalizing entrepreneurial support through standardized incubation systems.

However, based on several studies, the implementation and government support for the development of startups and MSMEs is still considered insufficient. A study by Manupraba (2016) highlights several persistent challenges faced by startups in Indonesia, particularly in relation to bureaucratic barriers in company registration and the lack of sufficient incentives. Many startup founders in Indonesia express the need for improved government policies, simplified company registration procedures, better access to funding, enhanced infrastructure development, and clear regulatory frameworks that could foster public trust in startup enterprises. Destiana (2019) similarly argues that the government's role in supporting startup development has not been fully optimized. This is partly due to the rapid and progressive socio-technological changes occurring in society, which have outpaced the legal and policy frameworks designed to support such transformations. Consequently, the state has struggled to keep up with creating relevant laws or foundational policies that accommodate the evolving needs of startups.

In addition, Kharisma (2021) urges the government to expedite the formulation of a comprehensive legal framework specifically dedicated to startup companies. Such a framework is essential not only to legitimize startup operations but also to establish a robust strategy for enhancing their quality, increasing startup formation rates, and fostering a conducive ecosystem. Key components would include improved infrastructure, access to capital, investment opportunities, empowerment programs, strategic partnerships, and supportive policy interventions. Kharisma also notes that the current licensing and registration processes remain cumbersome and recommends the introduction of more startup-friendly systems.

Informant Gov R, a representative from DISKOMINFO Yogyakarta, emphasized the importance of understanding and addressing the structural difficulties faced by startup actors in the region. One such issue is the complexity and inefficiency of the approval processes for startup registration, which calls for more streamlined and accessible government services.

> "*Startups have great potential, and we are working to establish the necessary structures legal frameworks, human capital, basic infrastructure, and data so that society can actively engage with technological advancements. The aim is to transition citizens from being mere consumers to becoming active participants and innovators. Strengthening human capital will generate a positive impact in this technological era."*

Informant Gov R also stressed the importance of ensuring that startup founders feel welcomed and supported in Yogyakarta. He advocated for simplified legal procedures, the development of high-quality human resources, and structured training programs to foster a thriving local startup ecosystem that contributes to regional economic growth. Similarly, in Solo, Informant BS emphasized the value of existing support mechanisms, which, while generally functioning well, still lack effective monitoring, evaluation, and thorough execution. Meanwhile, Informant Gov RI highlighted the need to strengthen networking and relationships among stakeholders, pointing to the importance of reinforcing the Triple Helix model of innovation.

> *What matters most to us is the strong synergy among all relevant stakeholders inter-institutional collaboration that enables the design and implementation of well-targeted programs and activities to support the development of the startup ecosystem in Indonesia."*

Governmental support and policies are fundamental to ensuring equitable market access and promoting entrepreneurial development. The state's role is to remove systemic barriers and create an environment conducive to startup growth. Lebih dari itu, This support must include reforms in legality, bureaucracy, and labor policy frameworks. In addition, there must be legal protection related to taxation systems, bankruptcy laws, credit security, capital market formation, employment contracts, and social welfare measures for startup workers (Purbasari et al., 2019). Unlike hierarchical control by the state, governance emphasizes decentralized, network-based coordination involving both public and private actors (Pierre & Peters, 2000). According to Scott, institutional structures are upheld by three pillars: the regulative (laws and enforcement), the normative (social values and norms), and the cognitive (shared beliefs and assumptions). These pillars not only constrain but also facilitate organizational behavior by providing legitimacy, stability, and a predictable framework for action.

However, despite these strategic initiatives, implementation still faces challenges. There remains an ongoing need for enhanced connectivity and synergy among key stakeholders government, industry, universities, and civil society. This need aligns with the Triple Helix model of innovation, developed by Etzkowitz and Leydesdorff (2000), which underscores the importance of collaboration among three principal actors: university, industry, and government. In this model, universities are no longer confined to their traditional roles as centers of education and research; instead, they are expected to adopt an entrepreneurial role in fostering innovation. Industry contributes through the practical application, investment, and commercialization of innovations, while government acts not only as a regulator but also as a catalyst and facilitator in shaping innovation ecosystems. The dynamic interplay and overlapping functions of these three spheres foster a flexible and adaptive environment that allows innovation to thrive. In regions such as Yogyakarta and Surakarta where local culture and creative industries are particularly vibrant strategically implementing the Triple Helix model could significantly enhance the effectiveness of innovation policies and the development of robust startup ecosystems.

Conclusion

The role of government is crucial in building a thriving startup ecosystem. In the context of metropolitan areas such as Yogyakarta and Surakarta on the island of Java, there has been significant growth and activity in the startup scene, including business incubation programs and various events initiated by both public and private sectors. Since 2015, the government has launched numerous policies aimed at strengthening the economy and promoting the creative industries, reflecting a strategic commitment to supporting startups and MSMEs (micro, small, and medium enterprises). In contemporary economic and innovation policy, governance has emerged as a key concept, replacing the traditional, state-centric notion of government.

Furthermore, the continuous interaction among these institutional and societal actors contributes not only to the growth of the startup landscape but also to the development of knowledge and evidence-based public policy. This article generates insights that serve as a bridge connecting the relationships among social institutions in the development of knowledge, by examining the roles played by various actors. These collaborations can inform more inclusive and context-sensitive governance frameworks, bridging academic research with policy implementation. As universities and research institutions engage more actively with policymakers and industry leaders, the co-production of knowledge becomes a key driver of innovation-driven development. This process grounds public policies in empirical knowledge and adaptive learning, enhancing regional governments capacity to design and refine innovation strategies responsive to social and economic change.

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