

## The role of multi-stakeholder collaboration in advancing msmes and creative economy: insights from Gorontalo's pentahelix policy model

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### Abstract

*This research employs a mixed-methods approach with an explanatory sequential design. Data were collected from 30 stakeholders representing five Pentahelix actors through structured questionnaires and in-depth interviews. The study focuses on three key variables: Government Role, Community Role, and Academic Role as independent variables, with Implementation Effectiveness as the dependent variable. Data analysis utilized multiple regression analysis and thematic analysis for qualitative data. Statistical analysis revealed that all three stakeholder roles significantly influence implementation effectiveness ( $R^2 = 0.699$ ,  $F = 24.758$ ,  $p < 0.001$ ). Community Role demonstrated the strongest influence ( $\beta = 0.521$ ,  $p < 0.001$ ), followed by Government Role ( $\beta = 0.387$ ,  $p = 0.001$ ) and Academic Role ( $\beta = 0.294$ ,  $p = 0.003$ ). Qualitative findings identified key success factors including active community participation, government responsiveness, and academia-industry partnerships, while highlighting challenges in bureaucratic coordination, budget adequacy, and technology transfer. The Pentahelix collaborative governance model proves effective for MSME policy implementation, with community engagement serving as the primary driver. However, successful implementation requires addressing structural barriers including bureaucratic inefficiencies, limited financial resources, and weak inter-sectoral coordination. The study contributes to collaborative governance theory and provides practical insights for policy makers in developing regions.*

**Keywords:** collaborative governance, pentahelix model, MSME empowerment, creative economy

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### Introduction

The global economy's transformation toward knowledge-based and innovation-driven growth has elevated the strategic importance of Micro, Small, and Medium Enterprises (MSMEs) and creative economy sectors (Budhi et al., 2020; Dewi et al., 2020; Marwan et al., 2019). In Indonesia, MSMEs contribute approximately 61.1% to the Gross Domestic Product (GDP) and absorb 97% of the workforce, while the creative economy sector contributes 7.8% to national GDP (Kurniadi et al., 2024; Saputra & Darmawan, 2023; Tambunan, 2023). Despite this significant contribution, MSMEs in Indonesia continue to face persistent challenges including limited access to finance, technology gaps, market constraints, and insufficient institutional support (Cahya et al., 2025; Permata & Andriani Kusumawati, 2022; Saifurrahman & Kassim, 2024; Tambunan, 2017).

The traditional government-centric approach to the development of Micro, Small, and Medium Enterprises (MSMEs) has demonstrated limited effectiveness, particularly in addressing the complex and interrelated challenges faced by MSME

actors (Akinyi, 2024; Borrero & Yousafzai, 2024; Espuny et al., 2025). This model is often top-down in nature, insufficiently adaptive to local dynamics, and lacks the ability to leverage the potential and resources of non-governmental actors. As governance paradigms evolve toward more inclusive and participatory frameworks, there is growing recognition that the success of MSME development largely depends on cross-sector collaboration (Islam et al., 2025; Marín-González et al., 2022). Ansell & Gash (2018) emphasize the importance of collaborative approaches in contemporary governance, highlighting the need for synergy among stakeholders to create more holistic and sustainable solutions (C. Ansell et al., 2020; C. K. Ansell, 2016). In this context, the Pentahelix model offers a more comprehensive framework than the traditional Triple Helix model, which only involves government, business, and academia (Gachie, 2020; Halibas et al., 2017). The Pentahelix model adds two critical elements—community and media—which significantly enrich the innovation and development ecosystem (Subair et al., 2025; Taratori et al., 2021). Each actor in this model plays a unique and vital role: the government as regulator and policy facilitator; businesses as the driving force of the economy; academia as the provider of research and technology; communities as sources of local knowledge and agents of social change; and media as a catalyst for information dissemination and public opinion formation (Carayannis et al., 2018). Collaboration among these five elements not only strengthens the innovative capacity of MSMEs but also fosters the development of contextual, inclusive, and long-term impact-oriented solutions.

Gorontalo Province, located in the eastern part of Indonesia, offers a distinctive and rich context for exploring the implementation of collaborative governance in the development of Micro, Small, and Medium Enterprises (MSMEs). Officially becoming an autonomous region in 2000, Gorontalo is still in the relatively early stages of institutional and economic maturation. Despite this, the province boasts considerable potential in various sectors most notably in traditional handicrafts, local culinary products, and creative industries that draw from abundant natural resources and indigenous cultural expressions. These sectors, if strategically cultivated, could serve as key drivers of inclusive and sustainable economic growth. However, realizing this potential is not without challenges. The province continues to grapple with persistent structural constraints, including underdeveloped infrastructure, geographic isolation from major economic centers, limited access to markets and capital, low levels of human capital development, and institutional weaknesses that hinder effective policy implementation. These multi-dimensional issues underscore the inadequacy of conventional, top-down governance approaches that rely heavily on the government as the sole actor of development. In light of these conditions, there is an urgent need for governance models that are more adaptive, integrative, and participatory.

The theoretical foundation for collaborative governance is built upon several interrelated frameworks that have evolved in response to the growing complexity of public policy challenges in an increasingly interconnected world (Koliba et al., 2017). One of the most influential perspectives is network governance theory, which posits that traditional hierarchical models of governance are often inadequate for addressing multifaceted public problems that span across institutional, sectoral, and jurisdictional boundaries (Kapucu & Hu, 2020; Klijn & Koppenjan, 2015; van den Oord et al., 2023). According to this view, governance is no longer the exclusive domain of the state, but rather the result of interactions among a wide array of public, private, and civil society actors, each contributing different resources, knowledge, and legitimacy to the policy process (Gash, 2022). Building on this foundation, collaborative governance theory

further refines the conceptual understanding by emphasizing the processes through which stakeholders engage in shared decision-making, joint problem-solving, and mutual accountability (Lee & Ospina, 2022).

Collaborative governance is not merely about cooperation or consultation—it entails structured interaction in which stakeholders with differing interests and capabilities work together in a deliberative and consensus-oriented manner to develop and implement policies or programs (Doberstein, 2016). This approach is particularly well-suited to situations characterized by high interdependence, uncertainty, and the need for innovation (Kuhn, 2016). In this conceptual landscape, the Pentahelix model emerges as a practical and systematic extension of collaborative governance principles (Emerson & Nabatchi, 2015). Drawing from and expanding the traditional Triple Helix model of innovation, which highlights the interaction between government, academia, and industry, the Pentahelix model incorporates community and media as two additional and equally important pillars. This broader framework recognizes that sustainable development and innovation are embedded within social and cultural contexts, and therefore require wider societal participation (Florini & Pauli, 2018; Vazquez-Brust et al., 2020).

Within the Pentahelix model, the government plays a pivotal and multifaceted role that extends far beyond its traditional function as a regulator (Resa Vio Vani et al., 2024). Its responsibilities include not only the formulation of public policies and the development of regulatory frameworks, but also the provision of essential infrastructure, allocation of public resources, and the coordination of diverse stakeholder interests (Mozzoni et al., 2025; Woldesenbet, 2020). As the central orchestrator in collaborative governance, the government holds a unique position to convene actors from various sectors and to shape the institutional context in which multi-stakeholder engagement can occur (Reypens et al., 2021). Government commitment, regulatory clarity, and institutional capacity are key determinants of success in collaborative governance arrangements. When the government demonstrates strong political will, clear and consistent policy direction, and robust institutional mechanisms, it creates a foundation of trust and legitimacy that encourages other stakeholders—such as businesses, academia, civil society, and media—to participate meaningfully in governance processes (Siddiki et al., 2015). Conversely, fragmented regulations, bureaucratic inefficiencies, or weak enforcement capacity can undermine collaboration and lead to stakeholder disengagement or conflict. In the context of Micro, Small, and Medium Enterprise (MSME) development, the government's effectiveness is particularly critical (Islam et al., 2025). MSMEs often operate in environments marked by uncertainty, limited access to finance and markets, and regulatory burdens (Susilawati, 2024). A responsive and facilitative government can mitigate these constraints by enacting pro-MSME policies, simplifying administrative procedures, offering incentives and training programs, and fostering platforms for dialogue and collaboration across sectors. Moreover, through decentralized governance structures and partnerships with local authorities, governments can ensure that interventions are context-sensitive and aligned with regional development priorities.

The community component of the Pentahelix model represents civil society organizations, MSME associations, and grassroots movements that provide local knowledge, social capital, and democratic legitimacy to development initiatives (Islam et al., 2025). Community engagement theory emphasizes that sustainable development requires active participation of beneficiary communities in problem identification,

solution design, and implementation monitoring (Hart, 2024). For MSME development, community organizations serve as crucial intermediaries between individual enterprises and formal institutions (Oriaifo et al., 2020; Panda, 2016). Academia's contribution to the Pentahelix framework includes research and development, human capital formation, technology transfer, and evidence-based policy advice (Alfianto, 2025; Calzada, 2020). The university-industry linkage literature highlights the importance of academic institutions in fostering innovation ecosystems and supporting knowledge-intensive economic development (Liu et al., 2024; Schaeffer et al., 2018). In developing country contexts, universities often serve as key sources of technical expertise and institutional capacity for MSME support programs (de Zubielqui et al., 2015; Setiadi et al., 2024). The business sector's involvement encompasses private sector partnerships, value chain integration, market access facilitation, and financial resource mobilization. Public-private partnership literature emphasizes that sustainable development requires meaningful engagement of profit-oriented actors who can provide market discipline, efficiency incentives, and scaling capabilities (Basco-Carrera et al., 2021; Gräfin zu Eulenburg et al., 2024; Wahyuni, 2021). For MSME development, established businesses can serve as mentors, customers, suppliers, and sources of commercial expertise (Sutrisno, 2023a). Media's role in the Pentahelix model includes information dissemination, public awareness building, advocacy, and accountability monitoring (Noya et al., 2024). Communication theory suggests that effective governance requires transparent information flows and public discourse that enables informed participation and democratic oversight (Asimakopoulos et al., 2025). In the digital age, media platforms have become increasingly important for MSME marketing, networking, and access to global markets (Sutrisno, 2023b).

Despite growing interest in collaborative governance approaches, empirical research on Pentahelix model implementation remains limited, particularly in developing country contexts. Most existing studies focus on developed economies with strong institutional frameworks and high social capital (Amrial, 2023; Halibas et al., 2017; Upe et al., 2021). There is a significant knowledge gap regarding how collaborative governance models function in contexts characterized by weak institutions, limited resources, and traditional hierarchical governance structures. Previous research on MSME development in Indonesia has primarily focused on financial access, technology adoption, and market linkage challenges (Hendrawan et al., 2024; Pranata et al., 2022; Purnamasari et al., 2020). While these studies provide valuable insights into specific constraints, they generally adopt sectoral perspectives that do not adequately address the systemic nature of MSME development challenges. Studies examining collaborative approaches to MSME development are particularly scarce, with most research focusing on government programs rather than multi-stakeholder initiatives.

The creative economy literature has emphasized the importance of cultural assets, innovation ecosystems, and cross-sectoral collaboration for sustainable development (Gerlitz & Prause, 2021; Klein et al., 2021; Klein & Spsychalska-Wojtkiewicz, 2020). However, most creative economy research focuses on global cities and developed regions, with limited attention to peripheral areas like eastern Indonesia. Understanding how creative economy development can be fostered through collaborative governance in resource-constrained contexts represents an important research priority. Implementation theory provides another crucial theoretical lens for this study. Krathu et al., (2015) identifies six variables that influence policy implementation success: policy standards and objectives, resources, inter-

organizational communication, implementer characteristics, implementer attitudes, and environmental factors. Collaborative governance potentially addresses several of these variables by improving resource mobilization, enhancing communication, and building implementer commitment.

Despite the substantial contribution of MSMEs and the creative economy to Indonesia's national development, their growth in eastern regions such as Gorontalo remains constrained by structural limitations including weak infrastructure, limited market access, and institutional inefficiencies. These challenges highlight the inadequacy of conventional, government-centered approaches and the need for more adaptive, collaborative governance models. However, research on how multi-stakeholder collaboration—particularly through the Pentahelix framework—functions in such resource-constrained contexts is still limited. The research gap this study addresses is the lack of empirical evidence on how collaborative governance models operate in MSME and creative economy development in developing regions. Specifically, little is known about the relative importance of different stakeholder roles, the mechanisms through which collaboration affects implementation effectiveness, and the contextual factors that enable or hinder success.

This study contributes in three ways. First, it provides empirical evidence on Pentahelix model implementation in a developing country setting, extending beyond the developed country focus of most collaborative governance research. Second, it examines collaborative governance within the specific domain of MSME and creative economy development, addressing a significant gap in sector-specific studies. Third, it employs a mixed-methods approach that integrates quantitative analysis of stakeholder perceptions with qualitative exploration of collaboration processes. The practical significance of this research lies in its potential to inform policy and practice: as governments worldwide seek more effective ways to support MSME development, insights from Gorontalo's experience can guide policymakers, practitioners, and stakeholders in designing inclusive, context-sensitive, and sustainable collaborative governance mechanisms.

## **Research Methods**

### ***Research Design***

This study employed a mixed-methods explanatory sequential design, combining quantitative and qualitative approaches to provide comprehensive understanding of Pentahelix model implementation in MSME and creative economy policy contexts. The research adopted a case study strategy focusing on Gorontalo Province, Indonesia, selected for its representative characteristics of developing regions facing MSME development challenges and its recent experience with collaborative governance initiatives. The research was conducted in Gorontalo Province, located in the northern part of Sulawesi Island, Indonesia. The province consists of five regencies and one municipality, with a total population of approximately 1.2 million people. Gorontalo was selected as the study location due to several factors: (1) its status as a relatively new autonomous region providing insights into governance innovation; (2) significant MSME potential in traditional crafts, agriculture, and fisheries; (3) ongoing provincial government initiatives to develop creative economy sectors; and (4) geographic representation of eastern Indonesian development challenges.

## Data Collection

The study population comprised stakeholders involved in MSME and creative economy development across the five Pentahelix actors. Purposive sampling was employed to select 30 key informants representing different stakeholder categories: Government (6 respondents including provincial and district officials), Community (12 respondents from MSME associations and civil society organizations), Academia (5 respondents from universities and research institutions), Business (4 respondents from private sector and financial institutions), and Media (3 respondents from journalism and digital media sectors), it show on Tabel 1.

**Table 1.** The Informants Representing Different Stakeholder Categories

No.	Stakeholder Categories	Frequency
1	Government	6
2	Community	12
3	Academia	5
4	Business	4
5	Media	3
<b>Total</b>		30

*Source : processed by author*

Selection criteria included: (1) minimum three years of experience in MSME or creative economy development; (2) active involvement in multi-stakeholder collaboration initiatives; (3) decision-making authority or significant influence within their respective organizations; and (4) willingness to participate in both quantitative and qualitative data collection activities. The research received ethical approval from the Universitas Bina Taruna Gorontalo Ethics Committee. All participants provided informed consent after receiving detailed information about research objectives, procedures, and confidentiality measures. Data confidentiality was maintained through anonymization procedures, with all identifying information removed from transcripts and analysis outputs.

Data collection utilized multiple methods to ensure triangulation and enhance validity. Primary data were gathered through structured questionnaires administered to all 30 respondents, measuring perceptions of stakeholder roles and implementation effectiveness using five-point Likert scales. The questionnaire comprised 30 items across four variables: Government Role (7 items), Community Role (7 items), Academic Role (7 items), and Implementation Effectiveness (9 items). It can be seen on Tabel 2.

**Table 2.** The questionnaire comprised 30 items across four variables

No.	Variable	Items
1	Government Role	7
2	Community Role	7
3	Academia Role	7
4	Implementation Effectiveness	9
<b>Total</b>		30

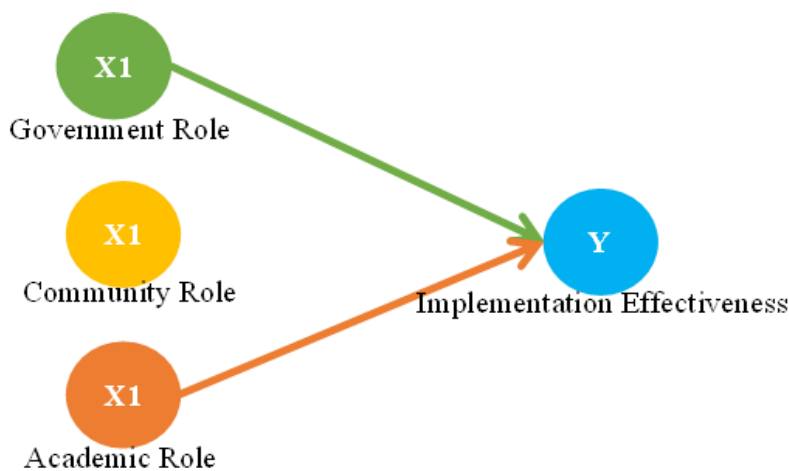
*Source : processed by author*

Qualitative data were collected through semi-structured in-depth interviews with all respondents, exploring collaboration processes, success factors, challenges, and recommendations. Interview duration ranged from 60-90 minutes, with all sessions audio-recorded and transcribed verbatim. Additional qualitative data sources included focus group discussions with MSME practitioners and participant observation of stakeholder meetings and program implementation activities. Secondary data sources included policy documents, program reports, statistical databases, and academic

publications related to MSME development and collaborative governance in Gorontalo Province and Indonesia more broadly.

**Data Analysis**

The study examined three independent variables and one dependent variable can be seen in Figure 1. Government Role (X1) measured stakeholder perceptions of government effectiveness in policy formulation, infrastructure provision, coordination facilitation, and resource allocation. Community Role (X2) assessed community participation, collaboration among MSME actors, knowledge sharing, and social control mechanisms. Academic Role (X3) evaluated university involvement in research, education, innovation support, and technology transfer activities. The dependent variable, Implementation Effectiveness (Y), measured multiple dimensions including target achievement, program quality, stakeholder satisfaction, sustainability, capacity building, market access improvement, innovation development, and socio-economic impact.



**Figure 1.** Research Framework  
*Source : processed by author*

Quantitative data analysis employed descriptive statistics and multiple regression analysis using SPSS 26.0. Data quality was verified through validity testing using Pearson correlation analysis and reliability testing using Cronbach's alpha coefficients. Classical assumption tests including normality, multicollinearity, heteroscedasticity, and autocorrelation were conducted prior to regression analysis. Qualitative data analysis followed thematic analysis procedures, with transcripts coded using both deductive and inductive approaches. Key themes were identified through iterative coding processes, with inter-coder reliability established through independent coding by multiple researchers. Data integration involved comparing quantitative findings with qualitative themes to develop comprehensive interpretations.

To ensure the rigor of the quantitative analysis, the study conducted validity testing using Pearson product-moment correlations. Each item was correlated with its respective construct score, and all coefficients exceeded the critical r-value, confirming that the questionnaire items accurately measured the intended variables. The study then employed multiple regression analysis to examine the influence of government, community, and academic roles on implementation effectiveness. Regression was chosen because it allows estimation of the relative strength of independent variables

and provides an overall model fit ( $R^2$ ) that explains the variance in the dependent variable. Classical assumption tests (normality, multicollinearity, heteroscedasticity, and autocorrelation) were also conducted to ensure the robustness of the regression results. For qualitative data, thematic analysis was applied to systematically identify, analyze, and report patterns within interview transcripts. This involved both deductive coding (based on constructs derived from the literature and survey variables) and inductive coding (emerging from participants' narratives). Themes were refined through iterative reading and cross-checking by multiple coders to ensure consistency. Finally, triangulation was used to strengthen validity and credibility. Data from surveys, in-depth interviews, and secondary sources (such as policy documents and official reports) were compared and integrated. This methodological triangulation ensured that findings were not dependent on a single source, but reflected converging evidence across multiple methods.

## Results and Discussion

### *Descriptive Analysis*

The demographic profile of 30 respondents revealed diverse stakeholder representation across the Pentahelix framework can be seen on Table 3. Government representatives (20%) included provincial and district officials from economic development, cooperatives, and planning agencies. Community stakeholders (40%) comprised MSME association leaders, civil society organization representatives, and grassroots development practitioners. Academic participants (16.7%) included university researchers, lecturers, and innovation center managers. Business sector respondents (13.3%) represented private companies, financial institutions, and industry associations. Media stakeholders (10%) included journalists, content creators, and communication specialists.

**Table 3.** The Demographic Profile 30 Respondents

No.	Variable	%
1	Government representatives	20.00
2	Community stakeholders	40.00
3	Academic participants	16.70
4	Business sector respondents	13.30
5	Media stakeholders	10.00
<b>Total</b>		<b>100.00</b>

*Source : processed by author*

Table 4 show the Geographically, respondents were distributed across Gorontalo City (50%), Gorontalo Regency (26.7%), Bone Bolango Regency (13.3%), and Pohuwato Regency (10%). Sectoral focus areas included traditional crafts (26.7%), local culinary products (23.3%), fashion and textiles (20%), digital and technology-based creative industries (13.3%), and tourism and cultural services (16.7%), it can be seen on Table 5.

**Table 4.** The Geographically Data

No.	Name of Place	%
1	Gorontalo City	50.00
2	Gorontalo Regency	26.70
3	Bone Bolango Regency	13.30
4	Pohuwato Regency	10.00
<b>Total</b>		<b>100</b>

*Source : processed by author*

**Table 5.** The Sector Focus Area

No.	Activities	%
1	Traditional Crafts	26.70
2	Culinary Products	23.30
3	Fashion and Textiles	20.00
4	Digital and technology	13.30
5	Tourism and Cultural Services	16.70
Total		100.00

*Source : processed by author*

Descriptive statistics revealed varying perceptions across stakeholder roles and implementation effectiveness. Government Role achieved a mean score of 23.47 (SD = 4.23) on a scale of 7-35, indicating "Good" performance. Community Role demonstrated the highest mean score of 27.20 (SD = 3.89), classified as "Very Good." Academic Role scored 21.83 (SD = 4.56), representing "Good" performance. Implementation Effectiveness achieved a mean score of 31.13 (SD = 5.12) on a scale of 9-45, indicating "Effective" implementation overall.

### **Stakeholder perception variations**

Analysis of perceptions across stakeholder categories revealed significant variations in how different actors assess collaborative governance effectiveness. Government representatives provided the most positive assessments across all variables, with Government Role (27.33), Community Role (26.17), Academic Role (24.50), and Implementation Effectiveness (35.17). This pattern suggests potential self-serving bias in government evaluation of their own performance and overall program effectiveness. Community stakeholders demonstrated more critical perspectives, particularly regarding Government Role (21.75), while providing the highest assessment of Community Role (28.58). This finding aligns with collaborative governance literature suggesting that civil society actors often maintain realistic expectations of government performance while recognizing their own contributions to development processes. Academic stakeholders provided relatively balanced assessments across all variables, with Government Role (24.40), Community Role (26.80), Academic Role (25.20), and Implementation Effectiveness (33.60). This balanced perspective likely reflects academic training in objective analysis and evaluation methodologies. Business and media stakeholders provided moderate assessments across all variables, suggesting pragmatic perspectives focused on practical outcomes rather than institutional loyalties. These findings highlight the importance of multi-stakeholder evaluation approaches in assessing collaborative governance effectiveness.

### **Statistical Analysis Results**

Instrument validity testing using Pearson correlation analysis demonstrated that all items achieved correlation coefficients above 0.361 (critical value for  $n=30$ ,  $\alpha=0.05$ ), confirming construct validity. Reliability analysis yielded Cronbach's alpha values of 0.842 (Government Role), 0.879 (Community Role), 0.823 (Academic Role), and 0.891 (Implementation Effectiveness), indicating excellent internal consistency across all variables. Classical assumption testing confirmed data suitability for regression analysis. Kolmogorov-Smirnov normality tests yielded significance values above 0.05 for all variables, confirming normal distribution. Multicollinearity assessment revealed Tolerance values above 0.1 and VIF values below 10 for all independent variables, indicating absence of multicollinearity problems. Glejser test results showed

significance values above 0.05, confirming homoscedasticity. Durbin-Watson test value of 2.145 fell within the acceptable range, indicating no autocorrelation issues

**Table 6.** Coefficients

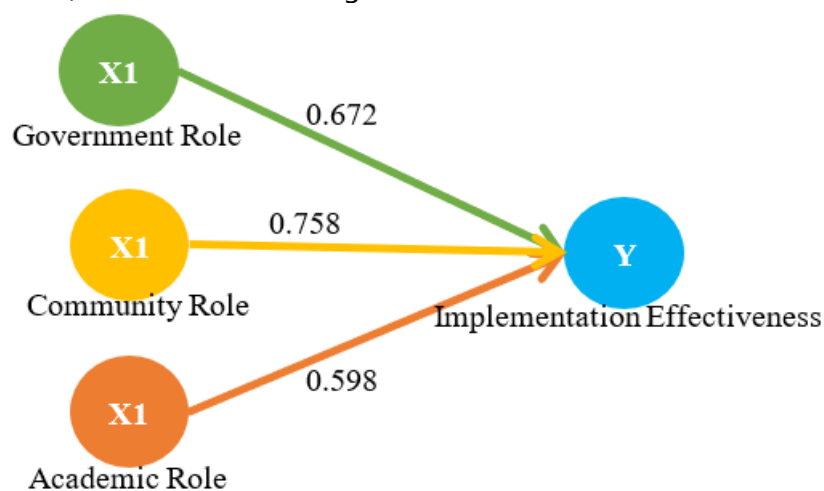
Model	Unstandardied Coefficients		R-square	F
		B		
1	(Constant)	3.245	0.664	24.758
	Government Role (X1)	0.387		
	Community Role (X2)	0.521		
	Academic Role (X3)	0.294		

*Source : processed by author*

Table 6 show the result about Coefficients that multiple regression analysis produced a statistically significant model ( $F = 24.758$ ,  $p < 0.001$ ) with an adjusted R-square of 0.664, indicating that 66.4% of Implementation Effectiveness variance is explained by the three stakeholder role variables. The regression equation is:  $Y = 3.245 + 0.387X_1 + 0.521X_2 + 0.294X_3$ . Also, the individual variable significance testing revealed that all three independent variables significantly influence Implementation Effectiveness. Community Role demonstrated the strongest influence ( $\beta = 0.521$ ,  $t = 4.652$ ,  $p < 0.001$ ), followed by Government Role ( $\beta = 0.387$ ,  $t = 3.949$ ,  $p = 0.001$ ) and Academic Role ( $\beta = 0.294$ ,  $t = 3.303$ ,  $p = 0.003$ ).

### Correlation Analysis

Pearson correlation analysis revealed significant positive relationships among all variables. Community Role showed the strongest correlation with Implementation Effectiveness ( $r = 0.758$ ,  $p < 0.01$ ), supporting its dominant influence in the regression model. Government Role demonstrated strong correlation with Implementation Effectiveness ( $r = 0.672$ ,  $p < 0.01$ ), while Academic Role showed moderate correlation ( $r = 0.598$ ,  $p < 0.01$ ). It can be seen on Figure 2



**Figure 2.** Correlation Analysis

*Source : processed by author*

Inter-variable correlations indicated significant relationships among independent variables: Government-Community ( $r = 0.432$ ,  $p < 0.01$ ), Government-Academic ( $r = 0.378$ ,  $p < 0.05$ ), and Community-Academic ( $r = 0.456$ ,  $p < 0.01$ ). These correlations suggest synergistic relationships among stakeholder roles while remaining below the multicollinearity threshold.

The regression results indicate that community participation has the strongest effect on implementation effectiveness ( $\beta = 0.521$ ). This suggests that MSME

empowerment in Gorontalo relies heavily on grassroots engagement and peer-to-peer support mechanisms. In practical terms, this finding highlights the importance of social capital and local ownership in sustaining development programs—factors that are often overlooked in top-down policy approaches. This resonates with Panda (2016), who emphasized that trust and community-based networks are key drivers of microenterprise success, and with Subair et al. (2025), who found that community actors play a decisive role in ensuring the sustainability of collaborative tourism governance. By contrast, the government's influence ( $\beta = 0.387$ ) reflects its enabling role—through the provision of regulations, infrastructure, and coordination platforms—rather than being the sole driver of development. This finding supports Ansell and Gash's (2018) argument that governments are most effective when acting as facilitators within collaborative governance networks. In other words, the effectiveness of MSME policies is not determined by state dominance, but by the government's ability to create the conditions that allow other actors to contribute meaningfully.

Meanwhile, the role of academia ( $\beta = 0.294$ ), though still significant, appears relatively weaker. This reflects persistent gaps in knowledge transfer and sustained engagement—a challenge also observed by Corral de Zubielqui et al. (2015) in their study on university–SME linkages. Thus, academic contributions exist, but they remain suboptimal in bridging research with practice. Their role becomes more meaningful when universities move beyond theoretical outputs and transform into practical partners for MSMEs. Taken together, these results confirm that collaborative governance effectiveness is asymmetrical: communities provide the energy for bottom-up initiatives, governments create enabling conditions, and academia contributes knowledge. Yet, it is the balance among these roles that ultimately determines implementation success. Therefore, quantitative findings must be deepened with qualitative evidence to understand how these roles are enacted in day-to-day practice. Subsequently, the thematic analysis of interview data provides more detailed insights into collaboration mechanisms on the ground. These qualitative findings enrich the statistical results by revealing the dynamics through which communities, governments, and academia negotiate their roles in the development of MSMEs and the creative economy in Gorontalo.

### ***Community Leadership and Ownership***

The prominence of the community's role in the quantitative findings was strongly reinforced by qualitative evidence, which revealed the centrality of community leadership and grassroots engagement in MSME development initiatives. Across multiple interviews and focus group discussions, respondents consistently emphasized the effectiveness of peer-to-peer learning, collective problem-solving, and the mobilization of social capital within MSME networks. These mechanisms were seen not only as supportive strategies but as essential pillars for program sustainability and contextual relevance. One community leader articulated this dynamic succinctly:

*"When MSME actors work together, sharing experiences and supporting each other, the programs become more sustainable because we understand our real needs and challenges"* (Participation 5).

This insight captures a critical dimension of collaborative governance—ownership from below—where development is not imposed but co-created by those who live its realities. Peer networks facilitated knowledge exchange that was immediate, relevant, and trust-based, especially in contexts where formal training or institutional support was limited.

Community-driven initiatives were also found to exhibit greater adaptability, resilience, and sustainability than their top-down counterparts. Unlike many government-led programs that struggled with rigid design and limited local customization, community initiatives demonstrated an acute sensitivity to local needs, informal norms, and socio-economic conditions. Their flexible, iterative approach allowed for real-time adjustments and collective learning, which enhanced both effectiveness and community buy-in. The cultural dimension further amplified this effect. Gorontalo's enduring tradition of gotong royong—a deeply rooted value of mutual assistance and collective responsibility—provided a cultural infrastructure that naturally aligned with the principles of collaborative governance. This tradition fostered trust, solidarity, and shared commitment, making it easier to mobilize resources, organize joint activities, and sustain momentum over time. In practice, gotong royong was operationalized through joint production activities, community-based marketing initiatives, and cooperative savings mechanisms—all of which strengthened the capacity of MSMEs to survive and grow collectively.

These findings underscore the strategic value of community empowerment within the Pentahelix model. Far from being a passive component, the community emerges as a driver of innovation, cohesion, and adaptive capacity. Recognizing and institutionalizing community leadership—not merely as beneficiaries but as co-creators and co-governors—can significantly enhance the success and legitimacy of MSME development programs, particularly in culturally cohesive regions like Gorontalo.

### **Government as Enabler and Facilitator**

While the government's role was found to have a significant influence on MSME development, qualitative findings revealed a crucial nuance: the effectiveness of government intervention was more strongly associated with its facilitative and enabling functions than with direct service provision. Across interviews and stakeholder consultations, participants repeatedly emphasized that the government's value lay not in dominating the development agenda, but in creating the conditions for other stakeholders to act effectively. Respondents consistently highlighted positive government contributions in areas such as regulatory clarity, infrastructure development, and the establishment of multi-stakeholder coordination platforms. These efforts were seen as foundational for reducing uncertainty, encouraging private sector investment, and fostering collaboration across the Pentahelix ecosystem. As one government official aptly stated:

*"Our role is not to control but to facilitate collaboration among stakeholders. When we provide clear regulations, adequate infrastructure, and coordination mechanisms, other stakeholders can work more effectively."*

This reflects a paradigmatic shift in governance, wherein the state transitions from a command-and-control actor to a collaborative enabler. However, despite these positive elements, participants also raised persistent concerns about bureaucratic inefficiencies that hindered program implementation. Licensing and permitting procedures were often described as slow, inconsistent, and overly complex, creating barriers for MSMEs seeking formalization or expansion. In addition, issues related to budget rigidity, delayed fund disbursement, and limited responsiveness of government agencies were frequently cited as constraints that undermined program agility and responsiveness to local needs. These findings underscore a critical insight: government performance in collaborative governance is not solely determined by the presence of policies or programs, but by the quality of administrative processes, the clarity of

institutional roles, and the extent to which the state can catalyze and sustain stakeholder interaction. When these enabling functions are performed well, they create a stable and predictable environment in which other Pentahelix actors—businesses, academia, communities, and media—can contribute meaningfully. Conversely, when bureaucratic hurdles dominate, they erode trust, discourage participation, and weaken the overall governance ecosystem.

Given the prevailing conditions, the need for reform is unambiguous. Governments, particularly at the regional level, should strengthen institutional capacity not only to design effective policies but also to enable inclusive implementation, simplify procedures, and sustain ongoing stakeholder engagement. These improvements are especially critical in regions such as Gorontalo, where persistent development challenges require adaptive, participatory, and cross-sector governance that transcends traditional administrative silos.

### ***Academic Contributions and Limitations***

Although the academic sector is widely recognized as a key pillar in the Pentahelix model, quantitative findings from this study indicated that its role exerted the weakest influence on MSME development outcomes. This seemingly paradoxical result was clarified through qualitative analysis, which revealed that the limited practical engagement of academic institutions with MSME communities and the ineffectiveness of technology transfer mechanisms were the primary factors constraining their impact. Respondents acknowledged that universities and research institutions possess considerable intellectual capital—ranging from policy-relevant research to innovative technologies and skilled human resources. Programs such as student internships, community service projects (KKN), and business incubation units were cited as examples of positive contributions. However, these were often seen as sporadic and disconnected from the day-to-day realities faced by MSMEs. As one MSME practitioner remarked:

*"Universities have good research and smart students, but they often don't understand our daily challenges. When they work with us continuously and learn our problems, their contributions become very valuable."*

This observation underscores a disconnect between academic outputs and grassroots needs, where research remains overly theoretical or inaccessible to practitioners. The absence of sustained, problem-oriented engagement was a recurring theme. Academic initiatives were frequently criticized for operating on short project timelines driven by academic calendars or research funding cycles, rather than aligning with the longer-term capacity-building needs of MSMEs. Moreover, respondents noted that technology transfer processes—such as product innovation, production efficiency techniques, or digital transformation support—were either poorly communicated or lacked appropriate adaptation to the MSMEs' scale and context. In contrast, successful academic involvement was characterized by long-term, trust-based partnerships, an applied research orientation, and direct participation in collaborative problem-solving. In such cases, universities functioned not merely as sources of knowledge, but as co-creators of contextually grounded solutions, working side-by-side with MSME actors to improve productivity, access new markets, or develop sustainable business models. These partnerships often involved iterative engagement, mutual learning, and a reconfiguration of roles—from knowledge providers to facilitators of innovation ecosystems.

These findings point to a critical need for redefining the academic role within collaborative governance frameworks. Rather than viewing MSME engagement as a peripheral extension of academic functions, universities should institutionalize community-linked research, build dedicated outreach units, and incentivize faculty and student involvement in real-world problem-solving. Establishing formal collaboration platforms—such as regional innovation forums, MSME advisory consortia, or community-based research centers—could bridge the existing gap and enhance the strategic relevance of academic actors in regional development. In sum, for the academic sector to fulfill its transformative potential within the Pentahelix model, it must go beyond knowledge production and become an active participant in co-producing solutions, fostering innovation, and building mutually reinforcing partnerships with MSMEs and other stakeholders.

### ***Collaboration Mechanisms and Challenges***

Respondents highlighted a range of effective collaboration mechanisms that facilitated meaningful engagement across Pentahelix actors. These mechanisms included regular multi-stakeholder forums, joint program planning sessions, shared monitoring and evaluation systems, and informal networking events. Such platforms served not only to align objectives and resources but also to foster mutual understanding, transparency, and adaptive coordination. When designed and implemented well, these mechanisms created spaces for inclusive dialogue and co-creation, enabling stakeholders from government, business, academia, community, and media to contribute their respective strengths to MSME development initiatives. However, despite the existence of these collaborative structures, respondents also pointed to a number of persistent challenges that constrained the effectiveness and sustainability of multi-actor partnerships. Key among these were coordination difficulties stemming from differing organizational cultures and work styles, particularly between bureaucratic government agencies and more agile private or community actors. In many cases, competing institutional priorities and short-term programmatic interests undermined alignment, while limited financial resources for joint activities hindered continuity and scalability.

A more systemic barrier identified was the absence of strong institutional frameworks to anchor and formalize collaboration. Many partnerships were described as personality-driven or project-based, lacking legal or procedural structures that could ensure sustainability beyond specific leadership or funding cycles. This absence often led to fragmentation, duplication of efforts, or collaboration fatigue when initial enthusiasm was not followed by structured, long-term commitments. Amid these dynamics, trust-building consistently emerged as a central enabler of successful collaborative governance. Initiatives that achieved sustained impact were marked by transparent communication, shared decision-making processes, and the presence of mutual accountability mechanisms—such as joint progress reviews, publicly accessible reports, or performance-based resource allocations. These practices helped mitigate asymmetries of power and knowledge, fostering a sense of ownership and legitimacy among all actors.

In contrast, failed or underperforming collaborations were often attributed to power imbalances, hidden agendas, and inadequate communication processes. In several instances, respondents noted that some stakeholders entered into partnerships with instrumental motives, using the collaboration as a means to secure visibility, funding, or political advantage rather than pursuing shared development outcomes.

Such dynamics eroded trust and discouraged open dialogue, ultimately weakening the collective capacity to solve complex, interdependent problems. These findings reinforce the understanding that effective collaborative governance requires more than structural coordination—it demands relational work, cultural bridging, and a commitment to equity and transparency. Building institutional environments that support this kind of collaboration—including clear protocols, joint learning mechanisms, and participatory evaluation tools—is essential for realizing the full potential of the Pentahelix model in MSME development and beyond.

### ***Comparative Analysis with Literature***

The finding that the Community Role exhibits the strongest influence on implementation effectiveness aligns closely with participatory development literature, which emphasizes the centrality of community ownership, social embeddedness, and local knowledge systems in driving sustainable outcomes. This result reinforces the proposition that bottom-up development approaches—those which prioritize local agency, contextual responsiveness, and endogenous capabilities—are more effective in addressing the complex, adaptive challenges faced by MSMEs, particularly in decentralized and resource-constrained settings such as Gorontalo. The community's influence also reflects the relational infrastructure present in many local settings, including trust-based networks, mutual aid norms, and informal coordination mechanisms. These forms of social capital—often overlooked in top-down policy designs—emerge as vital resources that enable collective problem-solving, resource mobilization, and resilience-building. This insight not only validates participatory models but also underscores the need to reconfigure development interventions around local strengths and community-driven innovation.

The significant yet secondary role of government provides important theoretical and practical implications. It supports the logic of network governance theory, which posits that in complex policy environments, the government's effectiveness derives not from hierarchical control, but from its capacity to facilitate, coordinate, and enable other actors. This view departs from traditional public administration paradigms, which often cast the state as the central planner and implementer, and instead aligns with New Public Governance (NPG) frameworks that advocate for collaborative, horizontal relationships among a plurality of stakeholders. In this light, government functions such as providing regulatory clarity, building connective infrastructure, and institutionalizing participation platforms become more crucial than direct service delivery.

The relatively weaker influence of the Academic Role, although consistent with empirical patterns observed in many developing countries, still offers important insights. The limited impact is often attributed to persistent challenges in linkages among universities, industry, and communities, including institutional distance, misaligned incentives, and the absence of sustained engagement mechanisms. Academic institutions frequently operate under performance metrics that privilege publication output over community impact, which creates a disconnect between research agendas and the realities faced by micro, small, and medium enterprises. Even so, the finding that academic involvement exerts a statistically significant positive effect indicates latent potential for meaningful contribution, provided that universities are willing to restructure their engagement strategies. Strengthening applied research programs, incentivizing long term partnerships with micro, small, and medium enterprises, and embedding service learning or community based innovation in the curriculum are all actionable pathways to increase academic value within the Pentahelix

framework. Taken together, these differentiated roles highlight the complementary yet asymmetrical nature of stakeholder contributions to collaborative governance for the development of micro, small, and medium enterprises. Optimizing implementation effectiveness requires not only alignment of interests and resources but also a recalibration of institutional roles, including elevating community agency, reorienting government toward facilitation, and repositioning academia as a co creator rather than an external observer. Such shifts are essential for building resilient, inclusive, and innovation driven local economies, especially in emerging regions such as Gorontalo, where cross sectoral cooperation is vital for overcoming structural constraints.

### ***Policy Implications***

The research findings yield several critical policy implications for strengthening MSME and creative economy development, particularly within the context of collaborative governance frameworks such as the Pentahelix model. First, the centrality of the Community Role in influencing implementation effectiveness highlights the imperative to reorient development interventions toward local agency and grassroots empowerment. Rather than relying on top-down service delivery models, policy should emphasize community capacity building, including the cultivation of local leadership, peer learning networks, and community-driven innovation platforms. Development strategies must recognize communities not merely as beneficiaries, but as active co-creators of development solutions. This approach is consistent with participatory development theory and offers greater potential for sustainability, contextual fit, and social legitimacy.

Second, the findings reaffirm that the Government Role is most effective when oriented toward creating enabling environments rather than functioning as a direct service provider. Key enabling functions include regulatory reform, public infrastructure development, and multi-stakeholder coordination facilitation. Accordingly, there is a need for public sector reform that strengthens the government's facilitation capacities, cultivates collaborative leadership skills, and streamlines bureaucratic procedures—particularly in licensing, funding mechanisms, and cross-sectoral coordination. A shift from hierarchical control to adaptive, responsive governance is essential to enhance stakeholder trust and engagement. Third, enhancing the Academic Role requires targeted institutional transformation within universities and research institutions. Current limitations in practical engagement with MSMEs reflect structural disincentives and misaligned academic reward systems. To address this, higher education institutions must be incentivized to conduct applied research, establish long-term community partnerships, and develop extension mechanisms—such as innovation hubs, business advisory units, or collaborative R&D programs—that explicitly link academic expertise with real-world MSME needs. Importantly, such reforms should maintain academic rigor while increasing the relevance and accessibility of university contributions to regional development.

Finally, the broader success of collaborative governance in MSME and creative economy development hinges on the establishment of robust institutional frameworks that sustain multi-stakeholder engagement over time. These frameworks should include formalized coordination mechanisms (e.g., multi-sectoral task forces or regional innovation councils), shared accountability systems (e.g., joint monitoring and performance-based agreements), and ongoing trust-building processes, such as participatory planning, transparent communication, and equitable decision-making protocols. Without such mechanisms, collaboration risks becoming fragmented, short-

lived, or dominated by particular actors. In summary, moving from fragmented and hierarchical interventions to a synergistic, multi-actor model of development requires systemic changes across all sectors. These policy implications offer a strategic roadmap for operationalizing the Pentahelix model and reinforcing inclusive, context-sensitive, and innovation-driven approaches to MSME and creative economy advancement—particularly in regions like Gorontalo where institutional capacity and stakeholder alignment are key to unlocking transformative outcomes.

## Conclusion

This study confirms the relevance of the Pentahelix collaborative governance model in strengthening MSME and creative economy policy implementation. The findings show that collaboration among stakeholders, particularly community engagement, significantly enhances effectiveness. Quantitative analysis indicates that Community, Government, and Academic roles together explain 66.4% of the variance, with community participation having the strongest effect ( $\beta = 0.521$ ), underscoring the importance of local ownership and social capital. Government remains essential as a facilitator through regulatory clarity, infrastructure, and coordination ( $\beta = 0.387$ ), while academia's relatively weaker role ( $\beta = 0.294$ ) highlights the need for applied research and sustained partnerships. Qualitative insights further emphasize that trust, transparency, shared decision-making, and cultural practices such as gotong royong are key enablers of collaborative success. Policy implications suggest that each Pentahelix actor requires tailored strategies. Communities should be empowered through grassroots leadership and peer networks; governments should strengthen facilitation and streamline regulations; academia must deepen practical engagement and innovation partnerships; businesses can anchor MSMEs in value chains and broaden market access; and media should amplify visibility, accountability, and digital literacy. Despite these contributions, the study faces limitations in its narrow geographic scope, cross-sectional design, small sample size ( $n=30$ ), and partial quantitative coverage of only three Pentahelix actors. Future research should adopt comparative and longitudinal approaches, include larger and more diverse samples, and examine the full spectrum of Pentahelix actors. Moreover, further studies should investigate contextual moderators such as culture, institutional capacity, and regional development dynamics to enrich understanding of collaborative governance in MSME and creative economy development. In conclusion, the study demonstrates that collaborative governance, when thoughtfully implemented, is an effective and practical model for advancing MSMEs and the creative economy. The Pentahelix framework not only advances theoretical discussions but also provides actionable guidance for policy innovation and institutional reform in developing regions such as Gorontalo.

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