Collaborative Governance and Community Adaptation in Strengthening Local Economic Institutions in the Rasau Jaya Transmigration Area, West Kalimantan

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Abstract. Local economic institutions in transmigration areas rarely develop without friction. Community members often participate unevenly, coordination between institutions stays weak, market access is narrow, and the pace of adjusting to socio-economic and technological change lags behind. Working through these barriers takes collaborative governance—governance capable of building institutional capacity while carrying forward social transformation at the community level. This study looks at how collaborative governance and community adaptation together shape the strengthening of local economic institutions in Rasau Jaya, a transmigration area in West Kalimantan. A quantitative survey design was used, drawing on 206 respondents: cooperative administrators, farmer group members, staff from village-owned enterprises (BUMDes), MSME operators, and other actors tied to the local economy. Data came from a Likert-scale questionnaire covering participation, social capital, inter-institutional communication, market access, leadership, innovation, governance, and willingness to collaborate, then analyzed both descriptively and inferentially. Collaborative governance, the results show, strengthens local economic institutions—largely through greater member participation, stronger social trust, wider access to information, and denser inter-institutional networks. Community capacity to adapt to economic and technological change adds to this, reinforcing institutional strength and helping drive social transformation within the area. Together, the findings offer a practical basis for policy aimed at strengthening economic institutions through community collaboration and adaptive governance in transmigration settings.

Keywords: collaborative governance, community adaptation, economic institutions, Rasau Jaya transmigration area.

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1 Introduction

Transmigration has long functioned as one of Indonesia's regional development tools, redistributing population while pushing economic growth beyond Java and Bali. Rasau Jaya, in Kubu Raya Regency, West Kalimantan, is among the earliest such areas, dating back to the early 1970s. More than fifty years on, it still faces structural obstacles in strengthening its local economic institutions. Historical accounts of the area note that the transmigration program never fully lifted its settlers out of poverty—the result of limited government preparation at the time, transmigrants' limited skill base, and ecological conditions that were not especially conducive to farming [1]. Those early difficulties left a mark that persists: cooperatives, farmer groups, and village-owned enterprises (BUMDes) in the area continue to struggle with thin member participation, uneven coordination between institutions, restricted market access, and slow adaptation to economic and technological change.

Findings from broader research on Indonesian transmigration areas point in a similar direction. Success in village economic development, that research suggests, depends heavily on community organizations, social capital, education levels, and support from village government [2]. The same body of work confirms that BUMDes and comparable institutions play a strategic role in building village economic independence—though how well they perform varies quite a bit depending on institutional capacity and the collaboration patterns in place [2]. Separately, studies of BUMDes across different regions of Indonesia find that institutions run participatorily tend to deliver stronger improvements in community welfare than those in areas without such institutions [3].

Addressing these problems calls for a governance framework that can bring village government, institutional administrators, and community members together around consensus-based decisions. Collaborative governance theory places weight on a shared forum where public and private actors can reach common ground—shaped by prior relationships among actors, the incentives that draw people to participate, leadership, and how the institution itself is designed [4]. This dovetails with common-pool resource theory, which shows that institutions built through participatory design, with rules the community itself has agreed to, tend to hold up better over time than institutions imposed from outside [5]. Trust and social capital matter here too, arguably as much as governance structure: strong social networks make information easier to share, lower transaction costs, and encourage people to act collectively [6, 7].

Governance alone, though, is not the whole picture. A community's capacity to adjust to socio-economic and technological change matters just as much for how well institutions hold up over time. Social-ecological resilience theory frames this in terms of a system's ability to absorb shocks, learn from them, and transform—capacities that sit at the core of institutional survival when the broader strategic environment keeps shifting [8]. That resilience does not appear in isolation; it grows out of the interplay

between social capital, institutional capacity, and policy support, which together determine how well a community can respond and adapt [9].

Against this backdrop, the present study sets out to examine how collaborative governance and community adaptation shape the strengthening of local economic institutions in Rasau Jaya, West Kalimantan. One hypothesis is tested: H1 — collaborative governance has a positive and significant effect on the strengthening of local economic institutions in the Rasau Jaya transmigration area.

2 Research Method

2.1 Research Design and Location

A quantitative, explanatory survey design was used to test the relationships among the study's variables. Fieldwork covered Rasau Jaya and its surrounding region in Kubu Raya Regency, West Kalimantan—four sub-districts (kecamatan) in total: Rasau Jaya, Sungai Raya, Teluk Pakedai, and Kubu. The Ekspedisi Patriot Team carried out data collection as part of a broader mapping exercise for the Collaborative Institutional Design Model for the Transmigration Area Economy.

2.2 Population and Sample

The population for this study consists of actors involved in local economic institutions across Rasau Jaya and the surrounding area: administrators and members of cooperatives, farmer groups, BUMDes, fishery groups, MSMEs, and other local economic institutions. Sampling reached 206 respondents spread across 20 villages in the four sub-districts. Rasau Jaya sub-district accounted for the largest share, at 74 respondents (35.9%), followed by Sungai Raya with 47 (22.8%), Teluk Pakedai with 44 (21.4%), and Kubu with 41 (19.9%). Most respondents were male—149 people, or 72.3%—and worked primarily in farming (119 people, 57.8%). Average age came to 44.17 years (SD = 11.60).

2.3 Research Instrument

Data collection relied on a closed-ended questionnaire built around a four-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree), with 37 items in total spanning two main variables. Sixteen items measured collaborative governance (X), organized under four dimensions: participation and institutional involvement, trust and social capital, communication and networking, and resource and infrastructure sharing. A further 21 items measured local economic institutional strengthening (Y)—a variable that also folds in indicators of community adaptation to

economic and technological change—organized under six dimensions: market access and value chain, capacity and skills, leadership and governance, incentives and regulations, innovation and externality, and willingness to collaborate.

2.4 Data Analysis Technique

Three stages structured the analysis. The first checked internal consistency for each variable using Cronbach's Alpha [10]. The second used descriptive statistics to map respondent characteristics and score patterns across dimensions. The third applied simple linear regression to test how collaborative governance (X) affects the strengthening of local economic institutions (Y), supported by a t-test for the regression coefficient, an F-test for overall model significance, and the coefficient of determination (R^2) to estimate how much of the variance in Y traces back to X. Throughout, procedures followed standard practice for quantitative social research [11].

3 Results and Discussion

3.1 Respondent Characteristics

Table 1 lays out the characteristics of the 206 respondents. Farmers belonging to farmer groups made up the bulk of the sample, and senior high school (SMA/MA) was the most common level of education completed.

Table 1. Characteristics of Research Respondents (n = 206)

Characteristic	Category	Number	Percentage (%)
Gender	Male	149	72.3
	Female	57	27.7
Education	Senior High School (SMA/MA)	90	43.7
	Elementary School (SD)	54	26.2
	Junior High School (SMP)	23	11.2
	Bachelor's/Diploma IV	23	11.2
	Diploma III	6	2.9
	Other	10	4.8
Primary Occupation	Farmer	119	57.8
	Trader	19	9.2
	Informal worker	18	8.7
	Employee	16	7.8
	Homemaker	6	2.9
	Fisherman	2	1.0

	Other	26	12.6
Institutional Membership Status	Farmer Group	116	56.3
	Cooperative	42	20.4
	BUMDes	22	10.7
	Other	26	12.6
Location (Kecamatan)	Rasau Jaya	40	19.41
	Sungai Raya	47	22.8
	Teluk Pakedai	44	21.4
	Kubu	41	19.9
	Sei Kakap	34	16.49

Note: Respondent age ranged from 21–78 years, with a mean of 44.17 years (SD = 11.60). Institutional membership status allowed for more than one category to be selected.

3.2 Instrument Validity and Reliability Test

Every item across both variables went through a reliability check using Cronbach's Alpha. Both variables came back with good-to-excellent reliability, as Table 2 shows, which supports using the instrument for the analysis that follows.

Table 2. Instrument Reliability Test Results

Variable	Number of Items	Cronbach's Alpha	Remarks
Collaborative Governance (X)	16	0.869	Reliable (good)
Local Economic Institutional Strengthening (Y)	21	0.903	Reliable (excellent)

3.3 Description of Research Variables

Total scores for the two variables are summarized in Table 3. Collaborative governance (X) scores ranged from 18 to 64, averaging 46.83; local economic institutional strengthening (Y) scores ranged from 29 to 83, averaging 60.08.

Table 3. Descriptive Statistics of Total Variable Scores

Variable	N	Min. Score	Max. Score	Mean	Std. Deviation
Collaborative Governance (X)	206	18	64	46.83	7.25
Local Economic Institutional Strengthening (Y)	206	29	83	60.08	9.53

At the dimension level (Table 4), two dimensions stand out: participation and institutional involvement (mean = 3.32) and willingness to collaborate (mean = 3.31).

Both point to a community that already carries real participatory capital and a fairly strong appetite for working together. The picture looks different at the bottom of the table—resource and infrastructure sharing (mean = 2.60) and market access and value chain (mean = 2.56) came in lowest, which fits the pattern of limited shared infrastructure and narrow market access that has dogged Rasau Jaya since its earliest days as a transmigration settlement [1].

Table 4. Mean Scores per Dimension of Research Variables (scale 1–4)

Variable	Dimension	Number of Items	Mean Score
X	Participation and Institutional Involvement	3	3.32
X	Trust and Social Capital	5	3.01
X	Communication and Networking	4	2.85
X	Resource and Infrastructure Sharing	4	2.60
Y	Market Access and Value Chain	4	2.56
Y	Capacity and Skills	4	2.91
Y	Leadership and Governance	3	3.07
Y	Incentives and Regulations	4	2.66
Y	Innovation and Externality	3	2.81
Y	Willingness to Collaborate	3	3.31

3.4 Simple Linear Regression Analysis Results

To test how collaborative governance (X) affects the strengthening of local economic institutions (Y), the study ran a simple linear regression. A correlation test came first, and it showed a strong, positive relationship between the two variables ($r = 0.788$; $p < 0.001$). Table 5 gives the regression coefficients; Table 6 summarizes the model as a whole.

Table 5. Simple Linear Regression Coefficients (Dependent Variable: Y)

Model	B	Std. Error	t	Sig.
Constant	11.550	2.683	4.305	0.000
Collaborative Governance (X)	1.036	0.057	18.305	0.000

Table 6. Regression Model Summary

R	R^2	Adjusted R^2	F	Sig. F
0.788	0.622	0.620	335.1	0.000

From Table 5, the regression equation works out to $\hat{Y} = 11.550 + 1.036X$. In practical terms, a one-unit rise in the collaborative governance score predicts a 1.036-unit rise in institutional strengthening. The coefficient for X is statistically significant ($t = 18.305$, $p = 0.000$, $p < 0.05$). Table 6's F-test tells the same story at the model level: $F = 335.1$,

$p = 0.000$, meaning the model as a whole holds up. R^2 comes to 0.622, so collaborative governance explains 62.2% of the variation in institutional strengthening, leaving the remaining 37.8% to factors the model does not capture. Given these results, H1 is supported: collaborative governance has a positive and significant effect on the strengthening of local economic institutions in Rasau Jaya.

3.5 Discussion

The Role of Collaborative Governance. These results line up with what collaborative governance theory would predict—that a shared forum bringing together village government, institutional administrators, and community members is central to strengthening local economic institutions [4]. The high score on participation suggests institutional members in Rasau Jaya are, in practice, fairly engaged in decision-making, which fits common-pool resource theory's argument that institutions survive longer when their rules are agreed on participatorily [5].

Social Capital as a Supporting Factor. Trust and social capital also scored relatively high (mean = 3.01), which points to networks of trust—within institutions and across them—as a key asset behind economic collaboration in this transmigration area. That tracks with social capital literature more broadly, which links trust to lower transaction costs and more collective action [6, 7]. Communication and networking scored somewhat lower (mean = 2.85), though, suggesting that formal channels for coordinating between institutions still need work if information about markets, prices, and assistance programs is going to reach communities more evenly.

Infrastructure and Market Access Limitations. The two lowest-scoring dimensions—resource-infrastructure sharing and market access-value chain—point to structural constraints that trace back to how Rasau Jaya was originally established: thin production infrastructure, limited distribution networks, problems that have not gone away [1]. Other research on BUMDes elsewhere in Indonesia reaches a similar conclusion, finding that village economic institutions lean heavily on infrastructure support and stronger external market networks, alongside solid internal governance [3].

Community Adaptation and Institutional Sustainability. Innovation and externality, along with capacity and skills—both markers of a community's ability to adapt to technological and economic change—came in at moderate levels (mean = 2.81 and 2.91, respectively). Adopting new technology and building human resource capacity within these institutions, in other words, is still a work in progress. That fits with social-ecological resilience theory, which puts community learning and transformation at the center of adapting to a shifting strategic environment [8, 9]. Willingness to collaborate scored high (mean = 3.31), which bodes well for sustaining this adaptation process going forward—particularly if local government policy pushes institutional collaboration more systematically. One limitation worth flagging: this study treated community adaptation as part of the local economic institutional strengthening variable rather than measuring it separately. Future work could split the two apart and run a multiple regression to get sharper estimates of each effect.

4 Conclusion

Collaborative governance, this study finds, has a positive and significant effect on strengthening local economic institutions in the Rasau Jaya transmigration area, West Kalimantan—accounting for 62.2% of the variation in institutional strengthening (R^2 = 0.622; F = 335.1; $p < 0.001$). That effect runs mainly through higher member participation, stronger social trust, broader access to information, and tighter inter-institutional networks. Community capacity to adapt to economic and technological change contributes as well, supporting the area's social transformation, though technology adoption and human resource capacity-building both still have room to improve. Limited shared infrastructure and market access remain structural challenges that will likely need further policy attention. Based on these findings, local governments and other relevant stakeholders should consider building formal schemes for inter-institutional collaboration, strengthening shared production infrastructure, and facilitating market access and technology adoption—steps that would support the sustainable strengthening of local economic institutions across transmigration areas more broadly.

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