



## Implications of Local Economic Linkages and Social Transformation of the Blimbingsari Village Community After the Operation of the Indonesia Pilot Academy Banyuwangi

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### ABSTRACT

The presence of large-scale educational institutions in rural areas can trigger significant economic and social change for surrounding communities, as seen in Blimbingsari Village, Rogojampi District, Banyuwangi Regency, since the Indonesian Pilot School Banyuwangi (APIB) began operating. This study examines how APIB's economic local economic linkages influences residents' income and the social transformation that follows. Unlike previous studies focused on airports or commercial plantations, this research fills a gap in the rarely studied context of agrarian-fishing villages directly adjacent to aviation academies, combining qualitative and quantitative analysis in one case study. Data were collected through in-depth interviews with 24 informants and questionnaires from 64 respondents in Blimbingsari Village. Results show APIB's impact is differential: business actors gained the most direct economic benefits, farmers and fishermen experienced greater social change, and housewives recorded the highest expectation scores despite moderate perceived benefits. The study enriches growth center theory, showing that benefit distribution from an anchor institution depends on each group's interaction with it, underscoring the need for village economic resilience through BUMDes optimization and business diversification, reducing dependence on one institution.

## 1. INTRODUCTION

The Indonesian Pilot School Banyuwangi (APIB), as a national-standard aviation education institution, emerged within the rural landscape of Blimbingsari Village, Rogojampi District, Banyuwangi Regency. Its presence represents a spatial anomaly: a high-technology aerospace training facility established on historically agrarian land and within a community long dependent on the primary sector. Unlike the conventional application of Perroux's (1955) growth pole theory, which primarily emphasizes industrial or manufacturing centers as engines of regional development through input-output linkages, production networks, and supply-chain expansion, APIB represents a tertiary-sector educational institution whose growth dynamics are mainly driven by consumption-based and knowledge-based linkages. As an educational growth pole, APIB generates regional economic effects through increased demand for local goods and services, employment opportunities, human capital development, and the circulation of household income within the surrounding community.

However, the growth pole perspective alone cannot fully explain the uneven distribution of these benefits. Drawing on Myrdal's (1957) Theory of Circular Cumulative Causation, the expansion of a growth pole may simultaneously generate positive spread effects and negative backwash effects. While APIB stimulates economic activities among certain groups, such as service providers, traders, and urban-oriented workers, peripheral communities, particularly farmers and fishermen, may experience limited economic integration and remain excluded from the emerging growth process. This condition reflects a backwash effect, in which existing spatial and sectoral disparities may be reinforced when local communities lack the resources, skills, or economic connections required to participate in the new growth trajectory. Therefore, examining APIB as a tertiary-sector growth pole requires an integrated perspective that considers not only its capacity to stimulate local development but also its potential to reproduce uneven economic outcomes.

The manifestation of APIB's growth effects can be observed through the circulation of operational expenditures generated by cadets, instructors, administrative staff, and visitors. These non-seasonal expenditures represent the primary transmission mechanism through which the institution influences the surrounding economy. Continuous demand for boarding houses, food stalls, transportation services, laundry businesses, retail shops, and other micro-scale enterprises has created new opportunities for local economic participation. These processes illustrate the spread effects of APIB as a growth pole, extending beyond direct employment absorption toward the expansion of MSMEs, diversification of local services, and the emergence of new livelihood strategies within the village.

Nevertheless, the extent to which these economic opportunities reach different social groups remains uneven. Communities whose economic activities are closely connected to the service sector are more likely to benefit from APIB's presence, whereas households dependent on traditional primary-sector activities may experience weaker linkages with the institution's economic ecosystem. This uneven integration reflects the coexistence of spread and backwash effects within the same growth process. Consequently, APIB has contributed to the ongoing transformation of Blimbingsari Village by strengthening service-oriented economic activities within a broader aviation-related development environment, while simultaneously creating new patterns of economic differentiation among local communities. Supported by infrastructure aligned with global aviation standards, including runways, training aircraft hangars, flight simulators, and cadet dormitories, APIB has

reinforced structural transformation processes in Blimbingsari Village by introducing new economic functions into a previously agrarian landscape, by introducing new economic functions into a previously agrarian landscape (Das et al., 2026; Prayitno et al., 2024).

Empirically, the routine expenditure patterns of APIB cadets, instructors, and staff, including food consumption, laundry services, transportation, accommodation, and other daily necessities, create localized economic spillovers by generating sustained demand for goods and services within the surrounding community. This mechanism differs from production-based rural industries because educational institutions function as anchor institutions, where their economic influence emerges from their relatively permanent presence, institutional expenditure, employment opportunities, and continuous interaction with local economies (Ehlenz, 2018; Harkavy et al., 2009). Previous studies on universities as anchor institutions demonstrate that educational institutions can strengthen local business ecosystems, increase demand for community-based services, and foster economic linkages between institutions and surrounding residents (Ehlenz, 2018; Fongwa, 2023).

However, APIB's role as an anchor institution should be understood within a broader regional development context. Blimbingsari Village is geographically connected not only to APIB but also to Banyuwangi International Airport, which has contributed to regional accessibility, mobility, and economic activity. Therefore, observed economic and social transformations should not be attributed exclusively to APIB, as they may reflect the cumulative interaction between airport-related development and the academy's institutional presence. This study consequently examines APIB as an additional rural anchor institution operating within an existing aviation-oriented development ecosystem rather than as an isolated driver of village transformation.

Beyond economic linkages, APIB also contributes to changes in the social organization of rural life. Prior to APIB's establishment, community activities in Blimbingsari were largely structured around natural and seasonal cycles, including agricultural periods, fishing seasons, and harvest patterns that influenced production, income generation, and household activities. The presence of APIB introduces a new institutional rhythm shaped by cadet recruitment, training schedules, academic cycles, and visitor flows. These recurring patterns influence how residents organize business strategies, allocate labor, and participate in emerging service-oriented activities. Thus, the transformation of Blimbingsari reflects an interaction between nature-based livelihood systems and institution-driven development processes.

This transformation can also be understood through the Sustainable Livelihoods Framework (SLF), which emphasizes that communities adapt to institutional changes by reorganizing their livelihood assets, including natural, financial, human, physical, and social capital. In this context, APIB functions as a transforming structure that influences how rural communities adjust their livelihood strategies in response to new institutional opportunities and constraints. Therefore, the presence of APIB represents not only an economic change but also a process of livelihood adaptation within a changing rural development context.

The relevance of this study is further strengthened by the structural conditions of Banyuwangi Regency, which continues to face challenges related to poverty, employment, and economic capacity despite its growing micro-enterprise sector (Statistik, 2025). These conditions highlight the importance of examining how large-scale educational institutions such as APIB contribute to local economic linkages and community transformation within rural areas.

The sustainability of Blimbingsari Village development depends not only on APIB's presence but also on strengthening internal economic capacity. While APIB can support local transformation, excessive dependence on a single institution may create vulnerability to future changes. Therefore, strengthening economic resilience through BUMDes, resident enterprise diversification, and locally developed products is essential. However, BUMDes should not be viewed as an automatic solution, as village enterprises may face governance challenges, including elite capture and unequal access to economic opportunities (Gaventa, 2006). Effective BUMDes development requires transparent governance, inclusive participation, and accountability mechanisms to ensure broader benefit distribution. This perspective aligns with anchor-institution and growth-pole literature, which emphasizes that sustainable local development requires both economic opportunities and inclusive institutional arrangements (Ehlenz, 2018; Prayitno et al., 2024).

Studies on the role of large-scale institutions in rural economic and social transformation have been widely conducted in contexts such as airports and plantations. However, research examining aviation education academies as anchor institutions within education-led rural development models remains limited in Indonesia. Unlike previous studies focusing on transportation infrastructure or commercial plantations, this study examines the local economic linkages and social transformation associated with an aviation education institution in Blimbingsari Village, providing a new perspective on rural transformation and community resilience strategies (Das et al., 2026).

Based on this context, this study addresses three questions: (1) how do APIB's local economic linkages influence the livelihoods of Blimbingsari Village residents; (2) what forms of social transformation occur following APIB's operation; and (3) how can community economic resilience be strengthened through diversification of local potential-based businesses? Accordingly, this study aims to analyze APIB's contribution to local economic linkages, identify social transformation processes among residents, and explore strategies for strengthening sustainable community-based economic development in Blimbingsari Village.

## **2. METHODS**

### **Types of Research**

This study adopts a mixed-methods approach within a pragmatist paradigm to examine the local economic linkages and social transformation associated with the presence of the Indonesian Pilot School Banyuwangi (APIB) in Blimbingsari Village. The pragmatist paradigm allows the integration of quantitative and qualitative evidence based on their complementary contributions to understanding complex social phenomena.

The study employs a convergent mixed-methods design, where quantitative and qualitative data are collected and analyzed concurrently, then integrated to provide a comprehensive interpretation of the research problem (Creswell & Plano Clark, 2018). The quantitative component examines community perceptions through structured surveys, including numerical scores, percentage distributions, and cross-tabulation analysis, while the qualitative component explores residents' experiences, interpretations, and adaptation processes through interviews and observations. A mixed-methods approach is appropriate because APIB's influence involves both measurable perceptions and socially constructed meanings. The study further applies a single-case study design to examine Blimbingsari Village as a unique context where an educational institution

interacts with rural community development. This design enables an in-depth understanding of how APIB shapes local economic linkages and social transformation within its real-life setting (Yin, 2018).

### **Data Collection Procedure**

Data were collected through semi-structured interviews, participatory observation, and documentation studies. Semi-structured interviews were conducted as the main technique to explore informants' perceptions and experiences regarding APIB's presence in Blimbingsari Village. Each interview lasted approximately 60 minutes, was audio-recorded with participants' consent, transcribed verbatim, and translated into English while preserving the original meaning.

Participatory observation included active observation of local economic activities and passive observation of cadet mobility patterns, village changes, and variations in economic activities across academic periods and holidays. Documentation studies were used to complement primary data through relevant official and historical records (Creswell, 2014). A reflexivity statement was applied to acknowledge potential positional bias arising from the researchers' affiliations with civil aviation education institutions. To minimize bias, the researchers maintained neutrality through data triangulation and by allowing participants' perspectives to guide interpretation.

### **Data Analysis**

Data were analyzed using a mixed-methods analytical approach that integrated quantitative and qualitative procedures. Qualitative data were analyzed using the interactive model of Miles et al. (2014), consisting of data reduction, data display, and conclusion verification. The analysis involved verbatim transcription, initial coding, categorization, and abstraction of themes related to APIB's local economic linkages and social transformation. Quantitative survey data were analyzed using descriptive statistical techniques, including frequency distributions, percentages, and mean scores, to identify patterns in community perceptions regarding economic and social changes. The results were presented through tables, graphs, and descriptive summaries.

The integration of findings followed a convergent mixed-methods integration procedure. Quantitative results, including perception score matrices and response distributions, were compared and connected with qualitative thematic codes from interviews and observations through joint displays. This integration enabled the identification of confirmation, expansion, and discordance between numerical patterns and residents' lived experiences, generating integrated interpretations (meta-inferences) regarding APIB's role in local economic development and social transformation. Data credibility was strengthened through source triangulation, member checking, and theoretical comparison with growth pole theory, anchor institution perspectives, Sztompka's social transformation theory, and the Sustainable Livelihoods Framework.

## **3. RESULTS**

### **Data Collection Profile**

The research data were collected through two complementary methods: in-depth interviews and supporting structured questionnaires. The qualitative component served as the primary source of data, involving 24 informants consisting of Blimbingsari Village officials (10 informants covering 17 identified themes, conducted on June 15, 2026, at the Blimbingsari Village Office), business actors (8 informants), and APIB workers (6 informants), conducted on June 25, 2026, in Blimbingsari

Village. Informants were selected based on their knowledge, involvement, and direct interaction with APIB-related economic and social activities.

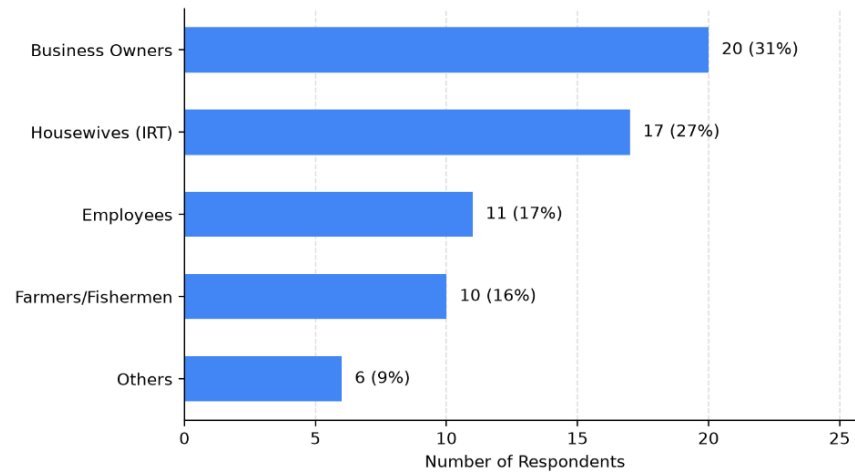
A structured questionnaire was distributed to 64 residents of Blimbingsari Village as supporting quantitative evidence. Respondents were selected using a voluntary response sampling approach, where residents who were available during the data collection period and willing to participate completed the questionnaire. This approach was adopted because the questionnaire was designed to complement the qualitative investigation rather than to generate statistically representative estimates of the village population. However, the study recognizes that voluntary response sampling has inherent methodological limitations, particularly the risk of self-selection bias, in which individuals with stronger interests, experiences, or perceived benefits related to APIB may be more likely to participate. This limitation is reflected in the occupational composition of respondents, where local business owners represented a relatively larger proportion of the sample (31%), while traditional farmers and fishermen accounted for a smaller proportion (16%). Consequently, the quantitative findings may capture more strongly the perceptions of economically engaged groups who directly interact with APIB-related activities, while potentially underrepresenting the experiences of primary-sector communities with weaker economic linkages to the institution. Therefore, the quantitative results were interpreted descriptively and used primarily to support the qualitative analysis rather than as evidence of population-level generalization.

**Table 1.** Summary of Research Data

| Yes          | Method                                               | Number of Sessions/Respondents | Collection Time | Location                    |
|--------------|------------------------------------------------------|--------------------------------|-----------------|-----------------------------|
| 1            | Village Apparatus Interview                          | 17 themes (10 speakers)        | June 15, 2026   | Blimbingsari Village Office |
| 2            | Interviews with Business Actors                      | 2 sessions (8 speakers)        | June 25, 2026   | Blimbingsari Village        |
| 3            | APIB Employee Interview                              | 1 session (6 speakers)         | June 25, 2026   | Blimbingsari Village        |
| 4            | Questionnaire                                        | 64 responds                    | -               | Blimbingsari Village        |
| <b>Total</b> | <b>64 questionnaires + 24 interview interviewees</b> |                                |                 |                             |

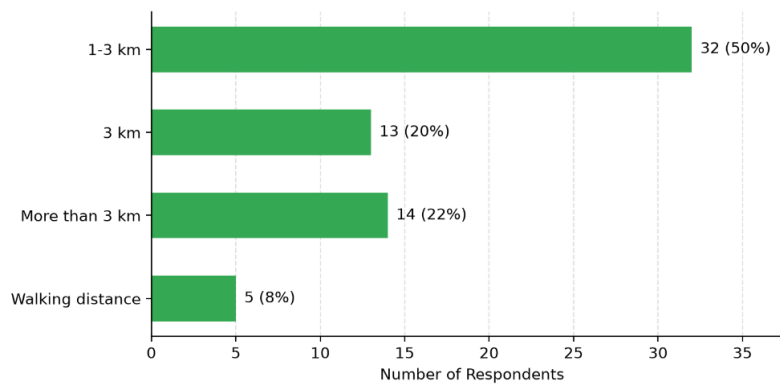
### Characteristics of Questionnaire Respondents

Based on occupation, respondents were dominated by Business Actors (20 people, 31%), followed by IRT (17 people, 27%), Employees/Employees (11 people, 17%), Farmers/Fishermen (10 people, 16%), and Other groups (6 people, 9%), as presented in Figure 1.



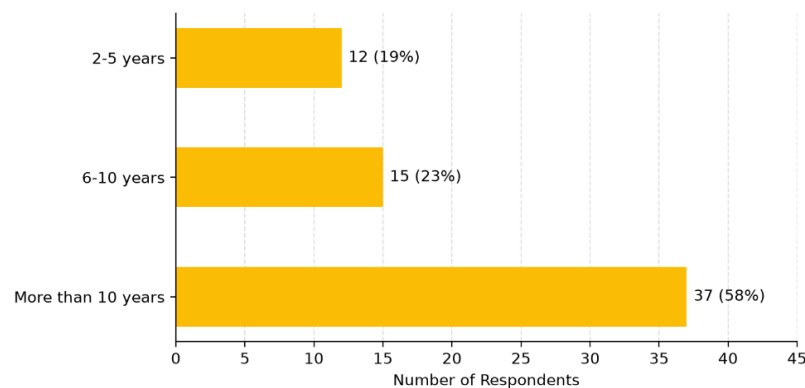
**Figure 1.** Distribution of Respondents by Occupation (n=64)

Based on the distance of residence to the APIB complex, the majority of respondents (32 people, 50%) lived within a radius of 1-3 km, followed by a radius of more than 3 km (14 people, 22%), a radius of 3 km (13 people, 20%), and those who could reach APIB on foot (5 people, 8%) (Figure 2)



**Figure 2.** Distribution of Respondents by Distance to APIB (n=64)

Based on length of stay, the majority of respondents were long-term residents who had lived for more than 10 years (37 people, 58%), followed by 6-10 years (15 people, 23%), and 2-5 years (12 people, 19%) (Figure 3).



**Figure 3.** Distribution of Respondents by Length of Stay (n=64)

### Survey Instrument Development and Operationalization

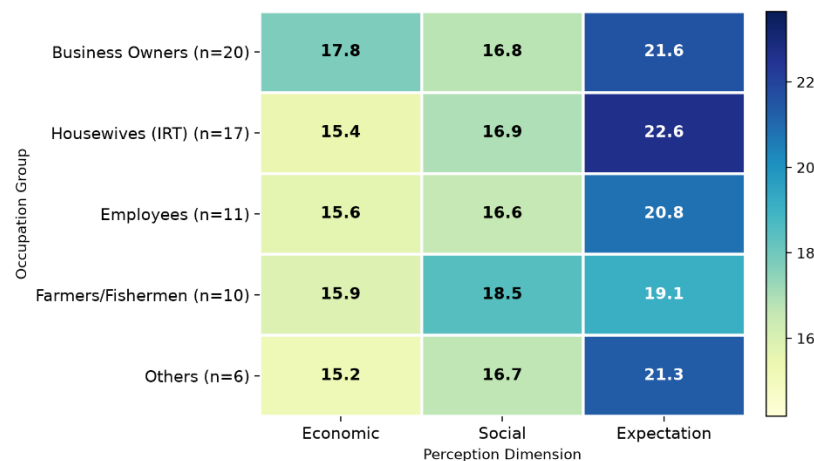
The average score of respondents' perceptions of economic, social, and expected changes showed different patterns between work groups (Table 2 and Figure 4).

**Table 2.** Perception Average Score by Occupational Group

| Occupational Group    | n  | Economic Score<br>(5-25) | SD   | Social Score<br>(5-25) | SD   | Hope Score<br>(5-25) | SD   |
|-----------------------|----|--------------------------|------|------------------------|------|----------------------|------|
| Local Business Owners | 21 | 18.48                    | 1.78 | 18.14                  | 4.14 | 22.00                | 1.14 |
| Household Managers    | 23 | 16.52                    | 3.59 | 17.43                  | 3.14 | 23.43                | 2.00 |
| Employees             | 8  | 15.50                    | 2.67 | 17.13                  | 5.93 | 22.00                | 0.76 |
| Farmers/Fishermen     | 5  | 16.00                    | 1.41 | 18.60                  | 0.55 | 21.20                | 4.09 |
| Others                | 7  | 15.43                    | 4.04 | 16.71                  | 1.25 | 22.14                | 1.07 |

**Note:** The quantitative comparisons across occupational groups should be interpreted cautiously due to differences in subgroup sizes. In particular, the farmers/fishermen category consisted of only five respondents (n=5), limiting the stability and generalizability of the descriptive statistics. Therefore, the mean scores and standard deviations presented for small occupational groups are treated as exploratory and heuristic indicators rather than statistical estimates. These quantitative findings are used primarily to triangulate and contextualize the qualitative evidence obtained from interviews and field observations.

The descriptive statistics indicate variations in perceived economic, social, and future expectation dimensions across occupational groups. However, these results should be interpreted cautiously due to unequal subgroup sizes, particularly for farmers/fishermen (n = 5) and other occupations (n = 7). Therefore, the findings are used to identify descriptive perception patterns within the sample and to complement qualitative interpretations rather than to make definitive population-level statistical claims.



**Figure 4.** Heatmap Local economic linkages Matrix Based on Questionnaire (n=64)

Local Business Owners recorded the highest economic score (17.8), in line with their position as the most direct economic beneficiary of APIB area activities. In contrast, farmers/fishermen recorded the highest social score (18.5) but the lowest expectation score (19.1), indicating that the change felt by this group was more in social relations than in direct economic benefits or optimism for the future. Meanwhile, Household Managers recorded the highest expectation score (22.6) despite its relatively low economic score (15.4), indicating that optimism about the future benefits of APIB is not always directly proportional to the economic benefits that have been felt today.

### Qualitative Findings: Deepening Quantitative Data

In-depth interviews with 24 speakers provide context for the above quantitative patterns through four main themes.

Diversify the economy without shifting key livelihoods. The majority of residents continue to work as farmers and fishermen, but new businesses such as boarding houses, transportation services, and supporting culinary businesses have emerged. The Head of Blimbingsari Village, Lukman Sanjaya, emphasized: "There has been no significant shift in the main profession. The majority of people continue to work as farmers and fishermen, but new businesses such as boarding houses, transportation services, and other supporting businesses have emerged."

1. Income stability for local formal workers. Residents who work at APIB in security, cleaning, and landscaping positions report a more stable income compared to previous odd jobs.
2. Ambivalent social transformation. Social cohesion and customary activities are maintained and even euphoric increase, but new challenges arise in the form of increased flood risk due to changes in drainage and the perception of exclusivity of APIB facilities.
3. Limited socialization and gap in access to public services. Facilities such as 24-hour clinics and sports facilities are available but their use is not optimal due to the lack of socialization.

### Synthesis of Combined Findings

To integrate the quantitative and qualitative findings, a joint display matrix was developed to generate meta-inferences by connecting perception scores with residents' lived experiences. This integration enabled the identification of convergence between numerical patterns and qualitative explanations regarding APIB's multi-effect impact on Blimbingsari Village.

**Table 3.** Convergent Joint Display Matrix of Quantitative and Qualitative Findings on APIB's Local Economic Linkages and Social Transformation

| Integrated Dimension           | Quantitative Findings (Survey Results)                                                                                                                                         | Qualitative Evidence (Interview Findings)                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Meta-Inference                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Economic Transformation</b> | Local Business Owners reported the highest economic perception score ( <b>18.48 ± 1.78</b> ), indicating positive perceptions regarding economic changes associated with APIB. | Business actors reported increased economic opportunities through APIB-related activities. Local businesses experienced increased customer demand, while new opportunities emerged through food services, accommodation, and transportation services. One business owner stated, <i>"The food stall became more crowded, and the economy increased."</i> Other informants highlighted that APIB employees purchased food and products from local businesses, creating market opportunities. | Mixed-methods integration generated three meta-inferences. Confirmation occurred as positive survey perceptions of APIB's economic contribution were supported by interview evidence showing the emergence of local businesses and service activities. Expansion occurred as qualitative findings explained that these economic effects were driven mainly by consumption-based linkages from cadets, staff, and visitors rather than industrial supply chains. Discordance emerged |

|                                                        |                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                        |                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                              | because, despite overall positive perceptions, qualitative evidence showed uneven benefit distribution, with farmers and fishermen remaining less integrated into APIB-related economic opportunities.                                                               |
| <b>Social Capital and Community Interaction</b>        | Farmers/Fishermen showed a relatively high social perception score ( <b>18.60 ± 0.55</b> ), indicating positive perceptions regarding social changes within the village.      | Residents reported that social cohesion remained strong, with village activities and community events continuing after APIB's presence. Informants mentioned increased participation in activities such as sports events, community gatherings, and youth programs. One resident explained that <i>"community life remains harmonious and activities continue as usual."</i> | The integration of quantitative and qualitative findings suggests that APIB contributes to strengthening social interaction and community networks. Nevertheless, changes in daily routines have gradually influenced patterns of social engagement among residents. |
| <b>Future Expectations and Community Optimism</b>      | Household Managers recorded the highest hope score ( <b>23.43 ± 2.00</b> ), reflecting strong expectations regarding future village development.                              | Residents expressed optimism that APIB could provide long-term opportunities, particularly for economic improvement and youth development. However, residents also expected stronger communication and greater involvement from the institution.                                                                                                                             | The combined findings indicate that community optimism reflects future-oriented expectations toward APIB's long-term contribution rather than only immediate economic outcomes.                                                                                      |
| <b>Infrastructure and Environmental Transformation</b> | Survey findings generally indicated positive perceptions regarding APIB-related changes, although infrastructure impacts were mainly identified through qualitative evidence. | Residents recognized improvements in infrastructure, including road development and sports facilities. However, they also reported challenges related to drainage changes, flooding risks, and limited public spaces.                                                                                                                                                        | The integrated findings demonstrate that APIB's presence produces both developmental benefits and emerging infrastructure pressures, requiring adaptive planning between the institution and the surrounding community.                                              |
| <b>Institution-Community Relationship</b>              | Positive perception patterns were observed across social and hope dimensions, indicating generally favorable                                                                  | Interviews indicated that institutional-community relations were considered relatively harmonious, although communication,                                                                                                                                                                                                                                                   | The findings suggest that APIB functions as an educational anchor institution, but maximizing its long-term impact                                                                                                                                                   |

|                                     |                                                                                        |                                                               |          |
|-------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------|----------|
| community attitudes<br>toward APIB. | socialization of programs, and<br>community participation need<br>further improvement. | requires<br>institutional-community<br>engagement mechanisms. | stronger |
|-------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------|----------|

*Note: Quantitative values represent mean scores  $\pm$  standard deviation derived from the Likert-scale questionnaire. Qualitative quotations are presented to illustrate the themes identified through thematic analysis.*

The joint display demonstrates the integration of quantitative and qualitative findings by connecting perception scores with residents' experiences. The combined evidence indicates that APIB's presence generates multidimensional impacts, including economic opportunities, social strengthening, future expectations, and infrastructure changes. These findings suggest that APIB functions as an educational anchor institution whose influence extends beyond direct economic effects to broader community transformation.

#### 4. DISCUSSION

##### Interpretation of Key Findings

The findings indicate that APIB's presence generates perceived economic impacts and subjective economic spillovers that vary across community groups. Local Business Owners reported the highest economic perception score ( $18.48 \pm 1.78$ ), reflecting stronger benefits among groups directly connected to APIB-related demand, such as food services, accommodation, and transportation. This pattern is consistent with Perroux's (1955) concept of spread effects, where the presence of a growth pole stimulates surrounding service sectors.

However, these benefits are not experienced equally across all livelihood groups. Farmers and fishermen reported more limited economic changes, suggesting that APIB's presence has not fully transformed traditional economic sectors. This condition reflects Myrdal's (1957) concept of the backwash effect, where economic opportunities may become concentrated among groups with stronger institutional linkages. Therefore, the findings should be interpreted as perceived economic spillovers rather than a measured Keynesian multiplier effect, highlighting the need to strengthen local economic linkages and create more inclusive access to APIB-related opportunities.

Beyond the uneven distribution of economic benefits, the establishment of an aviation-based educational institution also raises the possibility of potential environmental and social externalities associated with flight training activities. Although none of the 24 informants explicitly identified aircraft noise or aviation-related environmental disturbances as major concerns, this absence should be interpreted cautiously. Given APIB's role as a nationally recognized educational institution and its contribution to local economic opportunities, responses may have been influenced by social desirability considerations, where residents emphasize positive institutional contributions while expressing fewer concerns regarding potential negative impacts. Therefore, the absence of reported complaints should not be interpreted as evidence that such externalities are absent, but rather as an indication that community perceptions of institutional development involve complex negotiations between perceived benefits and potential costs. Future research should complement community perceptions with objective assessments, such as aircraft noise monitoring and environmental evaluations, to better understand the broader implications of aviation-based growth poles.

Similarly, the highest hope score among Household Managers ( $23.43 \pm 2.00$ ) despite moderate economic and social scores indicates that community optimism is not solely derived from current

experiences but also reflects future-oriented expectations regarding APIB's long-term contribution, particularly for younger generations. Thus, APIB's impact should be understood as a multidimensional transformation process involving uneven economic benefits, evolving social relations, and collective aspirations for future development.

### **Comparison with Previous Studies**

The findings regarding local economic linkages in this study are consistent with (Syahza et al., 2023) who demonstrated that institution-based economic activities in rural areas can stimulate local economic interactions and income circulation. The difference lies in the distribution of impacts: (Syahza et al., 2023) reported a relatively broader distribution of economic benefits because plantation-based activities directly involved many farmers, whereas this study found that APIB-related economic opportunities were more concentrated among service-sector actors rather than the agricultural sector, which remains the primary livelihood source for many Blimbingsari residents.

Compared to airport-development impacts on surrounding (buffer) villages reported by (Fachruddin et al., 2024) in the Dhoho Airport case, this study suggests that the Indonesian Aviation Academy Banyuwangi (APIB) does not merely reproduce airport-related economic effects but tends to deepen them by creating a more sustained local demand structure. Specifically, the presence of cadets as longer-term residents generates continuous and relatively predictable expenditure for daily goods and services, which differs from more traffic-dependent and potentially seasonal spending patterns commonly associated with passenger flows and airport activity. The distributional pattern also differs from campus-community impact evidence reported by (Said et al., 2025) on the socioeconomic impact of a public university branch campus, where benefits are discussed at the community level without the same degree of occupational concentration observed in Blimbingsari. In Blimbingsari, by contrast, multiplier benefits were uneven across occupational groups and concentrated among service-sector actors rather than the predominantly agrarian majority, a divergence that can be attributed to Blimbingsari's extreme-case context namely the intersection of a traditional farming community with a national-level aviation education institution, which differs substantially from typical urban campus settings.

### **Limitations and Cautions**

This research has several limitations. The single-case study design provides contextual understanding of APIB's role in Blimbingsari Village but limits the transferability of findings to other rural contexts. The small number of respondents within some occupational groups, particularly farmers/fishermen and other groups, requires cautious interpretation of descriptive statistics as exploratory rather than representative estimates.

The use of self-reported questionnaires and interviews may also introduce perception bias, as residents may emphasize visible benefits while expressing fewer concerns regarding potential negative effects. Furthermore, the contribution of APIB should be interpreted within the broader aviation development context of Blimbingsari Village. The presence of Banyuwangi International Airport may also influence mobility, service activities, and local economic development; therefore, observed transformations may reflect the cumulative interaction between airport-related development and APIB's institutional presence rather than the effect of APIB alone. Future longitudinal and comparative studies are needed to distinguish these contributions more clearly.

### Recommendations for Future Research

A longitudinal design would help future studies disentangle APIB's specific contribution from the longer-running, cumulative influences of Blimbingsari Airport, because repeated observations over time are better suited to tracing change processes than one-off measurements (Caruana et al., 2015). The sample should also be expanded particularly within the Farmers/Fishermen and "Other" categories to improve the precision and stability of perception-score estimates, since very small samples tend to increase sampling error and weaken statistical conclusions (Faber & Fonseca, 2014). Subsequent work could then assess whether BUMDes programs and resident-led business diversification meaningfully reduce vulnerability to single-source economic dependence, while comparative studies across villages with similar education-based "anchor institutions" would help test how transferable the education-led rural development argument is beyond Blimbingsari (Koh et al., 2020; Norris et al., 2023).

The discussion is the most important part of the entire scientific article. Its purpose is to answer the research problem, interpret the findings, integrate the research findings into the existing body of knowledge, and develop new theories or modify existing ones. This section discusses the findings from the data analysis in relation to relevant theories and previous research. The discussion comprises 35% of the entire article.

## 5. CONCLUSION

This study examines how the presence of the Indonesian Aviation Academy Banyuwangi (APIB) influences the economic and social transformation of Blimbingsari Village. The findings show that APIB's impacts are unevenly distributed across community groups. Local Business Owners experience stronger perceived economic benefits due to their direct interaction with cadets through food services, accommodation, and transportation, while farmers and fishermen experience more pronounced social changes despite limited economic improvement. Meanwhile, the high expectation scores among Household Managers indicate that community optimism is shaped not only by current benefits but also by future aspirations, particularly for younger generations.

A distinctive feature of APIB is the stable demand generated by resident cadets during the education period, which differs from more seasonal aviation-related activities. However, long-term resilience requires reducing dependence on a single institution. Strengthening BUMDes can support this process by acting as an intermediary institution that connects local producers and service providers with APIB-related demand, such as aggregating agricultural products for institutional food supply or coordinating local business networks. Supported by Government Regulation (PP) No. 11 of 2021, which recognizes BUMDes as legal entities, these institutions have greater capacity to establish formal business partnerships and supply agreements with external organizations. However, effective implementation requires attention to governance challenges, including managerial capacity, technological limitations, and the risk of elite capture. Without inclusive governance mechanisms, BUMDes may primarily benefit existing business owners with greater capital and social networks, while farmers and other vulnerable groups remain excluded from emerging APIB-related supply chains.

Theoretically, this study demonstrates that educational institutions as rural development anchors do not generate uniform benefits; rather, impacts depend on the nature and intensity of community linkages with the institution. This extends Perroux's (1955) growth pole perspective by

highlighting how spillover effects are distributed unevenly among social groups. However, as a single-case study based on self-reported perceptions, the findings should be interpreted cautiously. Future research using longitudinal approaches and broader samples is needed to distinguish APIB-specific effects from existing airport influences and to evaluate the effectiveness of local institutional strategies such as BUMDes and business diversification.

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