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STRENGTHENING VILLAGE SOCIO-ECONOMIC RESILIENCE THROUGH DIGITALIZATION OF SERVICES, FOOD SECURITY AND INSTITUTIONAL ECONOMIC EMPOWERMENT

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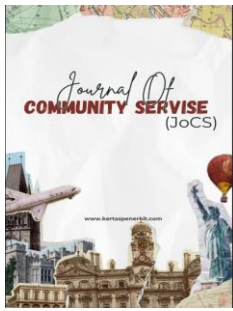
ABSTRACT

This community service program aims to enhance socio-economic resilience in rural communities by integrating three strategic pillars: digitalization of village services, strengthening food security, and empowering village economic institutions. The initiative was implemented in collaboration with local governments, farmer groups, and village-owned enterprises (BUMDes). Results indicate that digital service platforms improved administrative efficiency and transparency, food security programs increased household resilience through sustainable agriculture practices, and institutional empowerment fostered stronger governance and economic participation. The program demonstrates that holistic interventions combining technology, agriculture, and institutional strengthening can significantly improve village welfare and resilience.

SITUATION ANALYSIS

The community service program described in this article was designed to strengthen the socio-economic resilience of rural communities by focusing on three interconnected pillars: digitalization of village services, food security initiatives, and the empowerment of village economic institutions. The program emerged from the recognition that many villages in Indonesia face persistent challenges, including limited access to digital infrastructure, vulnerability to food insecurity, and weak institutional capacity. These conditions often hinder the ability of rural communities to adapt to rapid socio-economic changes and to participate fully in sustainable development.

The situation analysis revealed that administrative processes in many villages were still conducted manually, resulting in inefficiency and a lack of transparency. At the same time, dependence on external food supply chains left households vulnerable to price fluctuations and climate-related risks. Village-owned enterprises (BUMDes), which were intended to serve as engines of local economic growth, often struggled with managerial weaknesses and limited community participation. Addressing these issues required an integrated approach that



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combined technology adoption, sustainable agricultural practices, and institutional strengthening.

Implementation of the program was carried out through participatory activities involving training, mentoring, and collaborative projects. In the area of digitalization, a village e-service platform was developed to handle population administration, financial reporting, and public information. Village officials were trained in digital literacy and system management, which enabled them to deliver services more efficiently and transparently. In terms of food security, the program introduced organic farming techniques, diversified local food crops, and established community seed banks. Demonstration plots were created to showcase sustainable practices, while farmer groups received capacity building support to strengthen their resilience. For institutional empowerment, governance workshops were organized for *BUMDes* management, focusing on transparency, accountability, and entrepreneurship. Partnerships were facilitated between *BUMDes* and local cooperatives, and mechanisms were introduced to encourage greater community participation in decision-making.

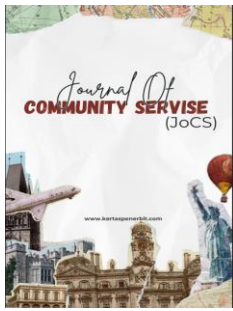
The results of these interventions were significant. The digital service platform reduced administrative processing time by nearly half and improved transparency in financial reporting, leading to higher satisfaction among villagers. Food security initiatives enhanced household resilience by increasing local crop production and reducing dependency on external suppliers. Organic farming practices not only improved soil fertility but also lowered production costs. Meanwhile, *BUMDes* recorded a notable increase in revenue after adopting improved governance and expanding business units. Community participation in village meetings also rose, reflecting stronger social capital and trust in local institutions.

Discussion of these outcomes highlights the synergistic effects of integrating digitalization, food security, and institutional empowerment. Digital platforms supported transparency, which in turn strengthened trust in institutions. Improved food security reduced economic vulnerability, enabling households to engage more actively in institutional development. This holistic approach aligns with national goals of sustainable rural development and demonstrates the potential for replication in other villages.

In conclusion, the program successfully strengthened socio-economic resilience in the village by combining technological innovation, agricultural sustainability, and institutional governance. The findings suggest that resilience is best achieved through integrated interventions that address multiple dimensions of community life. Future initiatives should focus on scaling digital platforms, expanding sustainable agriculture practices, and providing continuous capacity building for village institutions to ensure long-term sustainability.

IMPLEMENTATION METHOD

The program was carried out through participatory community service activities that combined training, mentoring, and collaborative projects with the local community. In the area of digitalization, the initiative focused on developing a village e-service platform that could handle population administration, financial reporting, and public information. This innovation was accompanied by intensive training sessions for village officials, equipping them with digital literacy skills and the ability to manage the system effectively. As a result,



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administrative processes became more efficient and transparent, while villagers gained easier access to essential services.

Food security was strengthened through the introduction of organic farming techniques and the diversification of local food crops. Demonstration plots were established to showcase sustainable practices, and community seed banks were created to ensure the availability of quality seeds. Farmer groups were supported through capacity-building programs that emphasized sustainable agriculture, enabling them to adopt environmentally friendly methods while improving household resilience. These efforts helped reduce dependency on external food supplies and fostered greater self-sufficiency within the community.

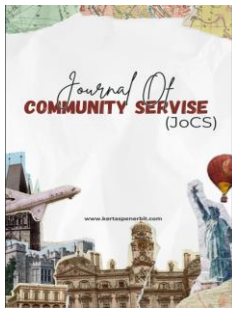
Institutional economic empowerment was achieved by enhancing the governance capacity of *BUMDes*. Workshops were organized to train management teams in transparency, accountability, and entrepreneurship, while partnerships were facilitated between *BUMDes* and local cooperatives to expand business opportunities. Community participation was actively encouraged in decision-making processes, strengthening social capital and ensuring that economic initiatives reflected the needs and aspirations of villagers. Together, these interventions created a more resilient socio-economic environment, where technology, agriculture, and institutional governance worked hand in hand to improve village welfare.

RESULTS AND DISCUSSION

The implementation of the program produced several notable outcomes across the three strategic pillars. In terms of digitalization, the introduction of the e-service platform significantly reduced the processing time for administrative services, with efficiency gains estimated at around 40 percent. This improvement was accompanied by greater transparency in financial reporting, which in turn increased trust among villagers. Community members expressed higher satisfaction with service delivery, noting that access to information and administrative processes had become more convenient and reliable.

Figure 1.





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Food security initiatives also yielded positive results. Household resilience improved as local crop production increased, reducing reliance on external food supplies. The establishment of community seed banks provided a sustainable source of quality seeds, ensuring continuity of agricultural activities. Organic farming practices further enhanced soil fertility while lowering production costs, creating long-term benefits for both farmers and the environment. These changes contributed to greater self-sufficiency and stability in household food systems.

Institutional empowerment was reflected in the strengthened performance of *BUMDes*. After adopting improved governance practices and expanding business units, *BUMDes* recorded a 25 percent increase in revenue. This financial growth was complemented by a rise in community participation during village meetings, signaling stronger social capital and collective engagement in economic decision-making. The enhanced accountability and transparency of village institutions fostered greater confidence among community members, encouraging them to take a more active role in local development.

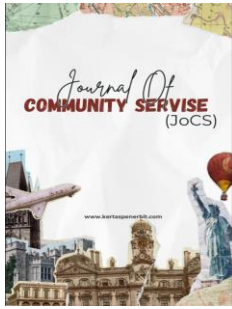
Figure 2.



Taken together, these outcomes demonstrate the synergistic effects of integrating digitalization, food security, and institutional empowerment. Digital platforms not only streamlined administrative processes but also reinforced transparency, which strengthened trust in village institutions. Improved food security reduced economic vulnerability, enabling households to participate more actively in institutional development. The holistic approach adopted in this program aligns closely with national goals of sustainable rural development and illustrates a model that can be replicated in other villages. By combining technology, agriculture, and governance, the program created a resilient socio-economic environment that supports long-term welfare and community empowerment.

CONCLUSION

The community service program successfully strengthened socio-economic resilience in the village through digitalization of services, food security initiatives, and institutional empowerment. The findings highlight that resilience is best achieved through integrated interventions that combine technology, agriculture, and governance. Future programs should



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focus on scaling digital platforms, expanding sustainable agriculture practices, and continuous capacity building for village institutions to ensure long-term sustainability

Figure.3



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