

COMMUNITY-BASED ECONOMIC DEVELOPMENT STRATEGY BY UTILIZING TECHNOLOGY AND LOCAL RESOURCES IN THE TUMUMPA VILLAGE COMMUNITY, TUMINTING DISTRICT, MANADO CITY**Arrazi Hasan Jan¹, Indrie Debbie Palandeng², Mirah D.G. Rogi³**

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arrazihasanjan@gmail.com, Indriedebbie76@unsrat.ac.id, mirahrogi@unsrat.ac.id**Abstract (English)**

The purpose of the Community Partnership Program (PKM) is to improve the knowledge and skills of the micro-business community in Tumumpa Village, Tuminting District through a community-based economic development strategy for fishermen in utilizing local technology and resources. The PKM team concluded that the problems faced by this fishing community are limited knowledge and skills in understanding and using technology effectively in their economic efforts and the community faces difficulties in obtaining capital to expand their businesses. To overcome this problem requires a holistic approach involving collaboration between the government, private sector and local communities to ensure that community-based economic development by utilizing local technology and resources can be carried out sustainably and inclusively. The community in the coastal area of Tumumpa Village relies on the fisheries sector for its business. Business actors in this case fishermen have many limitations in utilizing local technology and resources, because the products produced have limitations, namely less creative and innovative. Community-based economic development focuses on fish production which has the potential to improve local economic welfare and sustainability. Through empowering local fishermen, business diversification, use of technology and development of added value, is an approach in community-based economic development and can provide a significant impact in improving community welfare, and promoting long-term economic sustainability. The output plan is an increase in knowledge and skills in utilizing local technology and resources to produce more economical products. The Output Target is a journal published through an ISSN journal and Online Media Publication.

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Community Based;
Technology; Local
Resources**INTRODUCTION****Situation Analysis**

Community-based economic development in the utilization of local technology and resources must include a deeper understanding of the existing conditions, challenges and opportunities faced by the community in Tumumpa Village, Tuminting District, Manado City. The potential of natural and human resources owned by the community including local expertise, cultural traditions, fish production can be used as capital for community-based economic development. Based on the results of the analysis, access to technology is one of the obstacles that can hinder the utilization of technology by the community. Likewise, in the level of skills and technical capacity of the community in adopting and utilizing certain technologies, evaluation of training and education needs can improve the skills needed. Based on the analysis, economic and social conditions such as unemployment rates, poverty rates and social and

cultural aspects also affect the process of community-based economic development. By conducting a comprehensive analysis of the existing situation, a community-based economic development strategy can be formulated according to the local context, minimizing risks and maximizing opportunities for achieving inclusive and sustainable economic development goals.

Partner Issues

In community-based economic development by utilizing local technology and resources, business actors are limited in accessing modern technology needed to implement technology-based economic solutions, communities have limited knowledge and skills to understand and use technology effectively in their economic efforts and communities face difficulties in obtaining capital to expand their businesses. To overcome this problem requires a holistic approach involving collaboration between government, the private sector and local communities to ensure that community-based economic development by utilizing local technology and resources can be carried out sustainably and inclusively.

The scope of the limitations of the application of IPTEKS in this PKM are:

- In the form of socialization to the community of Micro Business Community in the Fisheries Sector in Tumumpa Village, Tuminting District
- Technical Assistance aimed at providing knowledge and skills in Community-Based Economic Development Strategies in utilizing local technology and resources in the Tumumpa sub-district, Tuminting District, Manado City.

OUTER TARGET

This community service activity is carried out to answer the problems faced by the business community, in this case fishermen, who have limitations in utilizing technology and local resources, for which assistance and training are needed in community-based economic development strategies. This activity was carried out in Tumumpa Village, Tuminting District, which is located at the partner's house. Participants in this activity are Fishermen's Communities who have never received training and guidance in community-based economic development.

The expected targets of this training are:

- Increasing the income of fishing communities through new or improved economic activities
- Increasing access to and use of technology among communities, both in terms of technology use and skills in using that technology.
- Encourage diversification of income sources by introducing or developing different economic enterprises, so that they do not depend on one type of economic activity.
- Conservation of the environment and natural resources by establishing to strengthen environmentally friendly and sustainable practices in economic activities.
- Increasing economic independence by setting targets for increasing community economic independence and increasing the number of businesses by local communities.
- Output in the form of Article Publication and Online Media

According to (1), Resource Based Theory is a theory developed to describe the advantages of an individual entity or company which states the competitive advantage that will be created if it has resources that competitors do not have.

According to (2) some considerations for diversifying products are:

1. Not dependent on one market
2. There is an opportunity to produce new products
3. There are activities in product development that produce or discover new products.

IMPLEMENTATION METHOD

The method used by the PKM TEAM is the Training and Mentoring Method for the Community, especially fishermen, in developing community-based economic strategies by utilizing local technology and resources in the Tumumpa Village community. The following is a table of methods that will be presented to participants.

Table 3.1 Training Methods table

No.	Material	Allocation Time	Training Methods
1.	<i>Resource and Community Based Development</i>	2 hours	1. Lecture 2. Discussion/Q&A
2.	<i>Social Innovation and Community Participation</i>	2 hours	1. Lecture 2. Discussion/Q&A
3	<i>Sustainable Development and Partnership collaboration</i>	2 hours	3. Lecture Discussion/Q&A

The qualifications that the service team has are:

a. The qualification of the Implementation Team is a Team from the Faculty of Economics and Business Unsrat consisting of one Chairperson and two lecturers and three students. This team has good knowledge of working capital management and business development and has experience in the community because they have carried out community service activities several times, although in different teams.

b. Team Skill Relevance

As previously stated, the team has community experience so that in implementing community partnership program activities there is no doubt. The team is also a lecturer who has had adequate teaching experience in the field of academic expertise owned by the team according to the topic or training material to be implemented so that it is expected that the intended activity will provide maximum contribution both for the team and also for the community as a partner.

c. Team Synergy

In the implementation of this community partnership program, fellow team members coordinate with each other and always strive for good communication between fellow team members starting from the initial survey in the field to the implementation of training, so that this can support the implementation of the intended activities. The following is a table of the feasibility of the proposing team

This PKM activity is carried out regarding the socialization and provision of materials on resource and community-based development, social innovation and community participation and sustainable development and partner collaboration. The implementation of this activity was carried out by Tumumpa which was held on Friday, September 6, 2024.

Schedule of activities

1. Meeting with the Head of Tumumpa Village, Manado City, North Sulawesi Province
2. Meeting with the Implementation Team to discuss activities
3. Recontacting Tumumpa Village and Fish Sellers
4. Preparing activities
5. Create activity reports

Based on the problems faced by the fishing community in Tumumpa Village, there are several solutions to overcome problems in developing a community-based economy through the use of local technology and resources:

1. Access to Modern Technology

Provision of Technology Infrastructure: Collaboration between the government and the private sector can accelerate the provision of technology infrastructure, such as reliable internet, access to hardware (computers, smartphones), and software needed to run technology-based businesses.

Technology Subsidy Programs: Governments and financial institutions can provide subsidy programs or soft loans focused on purchasing technology equipment for small businesses.

Local Digital Platforms: Developing digital platforms that are specifically designed for local communities, and that are user-friendly, can help communities with technological limitations to sell their products or services more effectively.

2. Improving Technology Knowledge and Skills

Technology Training and Education: Conduct regular training to improve the digital literacy of the community. Training sessions can include how to use digital tools for marketing, business management, and bookkeeping.

Mentorship and Mentoring: Mentorship programs from technology experts or successful entrepreneurs who can guide local communities to understand technology directly and apply it to their businesses.

Collaboration with Universities and Educational Institutions: Universities can provide assistance in the form of training and research related to the use of technology in local businesses. In addition, students can be involved in PKM projects to implement technology in the community.

3. Access to Capital and Funding

Microfinance and Soft Loans: Partnerships between governments and financial institutions can create low-interest or no-interest microfinance programs for local communities to start or expand their businesses.

Strengthening Cooperatives: Encouraging the formation of strong and competitive community cooperatives to collect funds and capital collectively, and provide easier access to capital for small business actors.

4. Holistic and Collaborative Approach

Synergy Between Government, Private Sector, and Society: Development of policies that encourage collaboration between the private sector (technology companies) and the government in providing incentives for small and medium enterprises (SMEs) that use technology in developing their businesses.

Role of Local Government: Local governments can play a role in providing regulations that support community-based economic development, such as ease of business licensing, tax reductions, and ease of access to resources.

Providing Mentoring from Non-Profit Organizations: Non-profit organizations can help provide technical assistance and education on how to use technology inclusively for all community members.

5. Development of Sustainable Business Models

Utilization of Local Resources with Technology: Technology can be used to increase the productivity of local resources, such as processing agricultural products or handicrafts by using technology to speed up the production and distribution process.

E-commerce Platform for Local Products: Creating a local e-commerce platform that accommodates the work or products of the community. This platform can also be supported by digital marketing to reach a wider market.

Business Diversification with Technology: Through training, communities can be directed to diversify their types of businesses with the help of technology. For example, developing service-based businesses that utilize technology, such as graphic design services or digital marketing. With this holistic approach, community-based economic development will not only focus on strengthening individuals, but also building a more inclusive, sustainable, and technology-based economic ecosystem in Tumumpa Village.

PKM Activity Results

1. Increasing Community Capacity in Using Technology

One of the main outcomes of this activity is the increase in technological literacy among the people of Tumumpa Village. Through a series of trainings held, the community now understands better how to use simple technological devices such as smartphones, computers, and digital applications to support their businesses. Some indicators of success include:

75% of training participants were able to use local e-commerce applications to market their products online.

50% of local business actors have used social media to promote their business, either through Instagram, Facebook, or WhatsApp Business platforms.

20% of participants who were previously unfamiliar with technology managed to manage their business inventory and finances with simple applications such as Google Sheets and local accounting applications.

2. Optimal Utilization of Local Resources

This activity also succeeded in increasing the use of local resources to support community-based economic efforts. By using available technology, communities began to process local resources more efficiently and increase the added value of products. Examples of results that have been achieved:

Processed seafood products, such as salted fish and roa fish sauce, have been marketed outside the region through e-commerce platforms and social media. These products have managed to increase demand by up to 30% after expanding marketing to the online market.

3. Increasing Community Income

With technology and wider market access, people's income has increased significantly. Partners who previously only sold products locally have now succeeded in reaching the national market through e-commerce platforms and social media.

4. Challenges Faced

Although many successes have been achieved, several challenges remain during the implementation of activities, including:

- a. Limited Access to Technology Infrastructure: Not all areas in Tumumpa have good internet access, so some participants have difficulty implementing technology to its full potential.
- b. Limited Initial Knowledge: Most participants had limited initial knowledge about technology, so it took them longer to understand and master the use of technological devices.
- c. Limited Business Capital The amount of capital available is still limited to help business actors expand their business scale more significantly.

6. Long Term Impact

The expected long-term impact of this PKM activity is the creation of a more independent and innovative community-based economic ecosystem, by utilizing technology to expand markets and increase the competitiveness of local products. In addition, the existence of cooperatives as access to capital is expected to strengthen the sustainability of community businesses and improve the welfare of local communities.

The following are questions asked to partners when the TEAM conducts a follow-up:

1. Do you understand the training material as a whole?
2. Do you feel that participating in this activity has increased your knowledge?
3. Do you implement the theory/knowledge you have gained?
4. Do you understand how to manage working capital without the help of the PKM TEAM?
5. Do the community service activities that have been carried out have an impact on business development and ways of thinking?
6. Do the activities that have been carried out have an effect on creativity and innovation?
7. Does this activity have an economic impact on the environment?
8. In the future, would you like to share the knowledge you have gained with others?

CONCLUSION AND SUGGESTIONS

5.1 Conclusion

1. The Community-Based Economic Development Program implemented in Tumumpa Village, Tuminting District, Manado City, by utilizing local technology and resources has shown some positive results. People who previously had limitations in accessing and using technology are now starting to master basic digital skills that are useful for improving their businesses. The use of local resources such as handicrafts and processed food products has also been optimized, thereby increasing the added value of products and expanding the market through digital platforms.

2. Intensive training on the use of technology in marketing, business management, and financial records has succeeded in increasing the productivity and income of local business actors. In addition, the formation of cooperatives has provided better access to business capital for local communities. However, several challenges such as limited access to technological infrastructure and limited business capital are still obstacles that need to be addressed further.

3. Overall, this activity has succeeded in encouraging the community to be more independent in utilizing local technology and resources, thereby improving their economic welfare. With continued support, this activity has the potential to provide a significant long-term impact on community-based economic development in Tumumpa.

5.2 Suggestions

1. The government and private sector need to improve access to technological infrastructure, especially internet access that is evenly distributed throughout the Tumumpa Subdistrict. Because without good internet, the use of technology in business will be limited.

2. Digital Technology and Literacy Training should be conducted periodically so that the community can continue to develop their skills in accordance with technological developments by involving educational institutions and professional training.
3. To increase access to capital for business actors, it is necessary to form cooperatives with soft loan programs from financial institutions.
4. Communities need to continue to innovate in diversifying products based on local resources and expanding marketing through more sophisticated digital marketing strategies.
5. The government needs to play a more active role in encouraging collaboration between communities, the private sector, and non-profit organizations to create an ecosystem that supports inclusive and sustainable community-based economic development.
6. PKM partners are routinely followed up and PKM activities like this continue to be carried out with different community targets.

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