

Bambupreneur: Transforming Bamboo Craftsmen's Businesses into Competitive MSMEs Through Production and Financial Training

¹Adri Putra Nugraha, ²Rizka Fitriasari

^{1,2}Department of Accounting, Brawijaya University, Malang, Indonesia
Corresponding Email: adri@ub.ac.id

ARTICLE INFORMATION

ABSTRACT

Keywords:

Bamboo Craftsmen
Community Empowerment
Managerial Soft Skills
Business Accounting
MSME Productivity

The Mulya Jaya Bamboo Craftsmen Community in Ternyang Village, Sumberpucung District, Malang Regency, is a micro-business group with great potential in the bamboo craft industry. However, after four years of operation, the community still faces fundamental challenges, particularly limited production equipment (especially bamboo cutting tools) and the absence of an adequate financial recording system. These conditions lead to low production efficiency, inconsistent product quality, and difficulties for craftsmen in determining selling prices and measuring business performance accountably. This community service program aims to transform the craftsmen community into a more professional and competitive micro, small, and medium enterprise (MSME) through integrated technical and managerial training. The program focuses on two main interventions: (1) capacity-building in production by providing and training the use of more efficient bamboo cutting tools, and (2) basic business accounting training covering daily financial recording and cost of goods sold (COGS) calculation. The activity adopts an Empowerment-Based Learning model that emphasizes active participation, hands-on practice, and the development of sustainable work habits. The results indicate improved productivity, strengthened business management, and expanded market access for the community's products in a sustainable manner.

This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



I. INTRODUCTION

The bamboo craft industry in Indonesia is one of the creative economy potentials based on local resources that has high economic value. Bamboo, as a raw material that is abundant in various regions of Indonesia, has long been a mainstay commodity in the craft industry, both for functional and decorative needs. However, the sustainability and competitiveness of bamboo craftsmen are largely determined by their ability to manage production and business efficiently and professionally.

One bamboo craftsman community that has consistently maintained its traditions while striving to survive amid market dynamics is the Mulya Jaya Bamboo Craftsmen Community, located in Ternyang Village, Sumberpucung District, Malang Regency. This community has been established for four years and currently has 20 active craftsmen. The products produced include household crafts, kitchen utensils, simple furniture, and bamboo decorations. Despite its great potential, this community faces several major challenges that hinder optimal business development.

One of the crucial problems faced is the limitation of production tools, particularly the lack of adequate bamboo cutting tools. So far, the cutting process has been done manually, which hinders time efficiency, causes inconsistency in size, and increases the risk of work accidents. This has a direct implication on low productivity and suboptimal product quality. On the other hand, in terms of business management, community members do not yet have an adequate understanding of simple business accounting, including financial recording, profit calculation, and determining the cost of goods sold (COGS). The absence of a recording system makes it difficult for craftsmen to clearly understand the financial

position of their business and hinders their efforts to grow their business. According to (Syamsul, 2022), MSMEs without financial records are at risk of stagnation and prone to failure in business decision-making.

Furthermore, based on research (Dharmaputra & Putra, 2023), small business owners who do not understand the concept of COGS tend to set selling prices arbitrarily, without considering all cost components. As a result, they have the potential to experience losses even though they appear to be actively producing. This is also experienced by the Mulya Jaya Community, which still determines prices based on estimates and habits, rather than structured calculations. This community actually has enormous potential if it receives the right support, both in terms of increasing production capacity through the provision of tools and technical training, as well as in terms of managerial transformation through financial training. Therefore, a community service program is needed that is not only in the form of socialization or short-term training, but actually intervenes in two important aspects, namely increasing production efficiency and business financial literacy.

It is in this context that the program entitled "Bambupreneur: Transformation of Bamboo Craftsmen's Businesses Towards Competitive MSMEs Through Production and Financial Training" was designed. This program stems from the real needs of the community and is designed to bridge existing limitations towards independence and increased competitiveness of the bamboo-based economy. The problems faced by the Mulya Jaya Bamboo Craftsmen Community are a reflection of the common challenges faced by traditional craftsmen communities in various regions. A study by (Munawaroh & Trihastuti, 2023) shows that one of the main obstacles in empowering craft communities is the limitation of production equipment, which results in low work efficiency and inconsistent product quality. Without proper cutting tools, craftsmen need more time to complete products and face the risk of errors in size and work safety.

In addition, weak financial record-keeping is a major obstacle to micro-business development. According to (Oktriawan et al., 2022), most MSMEs in the craft sector do not even have a simple record-keeping system, which makes it difficult to determine selling prices, calculate profits, and access financing. This condition is exacerbated by the lack of applicable and sustainable managerial training.

These two aspects are interrelated and cause artisans to remain in a subsistence business cycle without a clear direction for development. Therefore, a community service approach is needed that is not only educational but also capable of addressing technical and managerial issues in an integrated manner. The novelty of this program lies in its integrative and contextual approach: technical production training (provision and use of bamboo cutting tools) is conducted simultaneously and directly linked to financial recording training based on actual production activities. Most previous community service programs only focused on one aspect, for example, production training without financial training (Herlambang & Rusdiyanto, 2022), or vice versa, managerial training without intervening in the production process (Wicaksono et al., 2024).

This program also emphasizes hands-on practice and habit formation, not just knowledge transfer. By actively involving community members in production simulations and continuous recording, this program encourages behavioral change towards more professional business management. This community service model also has the potential for replication in similar communities in other craft sectors, as it utilizes the principles of simple tool efficiency, activity-based micro-accounting methods, and community participation as the center of learning.

II. ISSUES

The Mulya Jaya Bamboo Craftsmen Community is a micro-business group with growth potential but still faces a number of fundamental obstacles in carrying out its production activities. Based on observations and interviews with community leaders, there are two main problems that directly affect the productivity and sustainability of the business, namely limited production tools and low business financial literacy.

The first problem relates to limited production tools, particularly bamboo cutting tools. Until now, the cutting process has been carried out manually using machetes or ordinary saws. This method not only hinders work efficiency but also produces uneven cuts and poses a high risk of workplace accidents. As a result, production time is longer, the number of products produced is limited, and product quality is inconsistent. This condition has implications for the low competitiveness of products in the market, especially when faced with other producers who have used semi-modern equipment.

The second problem is the low capacity for recording and managing business finances. All financial transactions, both for the purchase of raw materials and the sale of products, are still recorded in a simple manner, with most of them only remembered by each member. The absence of a structured recording system makes it difficult for the community to accurately determine their financial position, including calculating profits, expenses, and production costs. As a result, artisans find it difficult to determine selling prices and assess business performance in an accountable manner. This situation hinders strategic decision-making and opportunities to access capital from financial institutions.

These two problems are interrelated and form a vicious cycle that hinders the community's development. Limited production tools reduce efficiency and output, while weak financial management makes it impossible for the community to plan for better tool investments. Therefore, service-oriented interventions are needed to improve production efficiency while strengthening managerial capacity. An integrative approach combining technical and financial training is expected to break this chain of problems and serve as a first step toward the independence and professionalization of bamboo craftsmen's businesses.

III. METHOD

General Approach

The community service program entitled "Bambupreneur: Transformation of Bamboo Craftsmen's Businesses Towards Competitive MSMEs Through Production and Financial Training" was implemented using a participatory approach based on the real needs of the partners. This approach was developed by considering the actual conditions of the Mulya Jaya Bamboo Craftsmen Community, which has been facing two main problems, namely limited production tools and the absence of a structured business financial management system.

The implementation of the activities focused on two areas of intervention, namely increasing technical capacity in production and strengthening managerial capacity in finance. All activities were designed collaboratively with the active involvement of lecturers, students, and members of the artisan community. This collaboration was expected to create a co-learning process between academics and micro-business actors, so that the solutions produced were truly in line with the context of the partners' needs. This approach is implemented based on the principles of Empowerment-Based Learning, which emphasizes participation, empowerment, and hands-on practice (learning by doing).

Implementation Stages

The activities are carried out through four main stages that are interconnected. The first stage is preparation and identification of partner needs, which begins with field observations and discussions with community leaders to map the conditions of production tools, workflows, and existing financial recording systems. At this stage, the community service team also developed training modules tailored to the actual needs in the field, including technical training on production and simple business accounting.

The second stage is training to increase production capacity, which focuses on the procurement of simple bamboo cutting tools such as portable chainsaws and manual precision cutting tools. At this stage, community members are trained to operate the tools with good safety and work efficiency standards. The training also includes simulations of cutting and assembling products based on standard sizes and shapes, with the aim of improving the precision and consistency of production results.

The third stage is business accounting training and mentoring, which focuses on improving the managerial skills of artisans. Activities include an introduction to manual recording systems, calculating the cost of goods manufactured (COGM), preparing simple profit and loss statements, and cash flow analysis. The mentoring process is carried out using a learning by doing approach, where participants directly practice recording transactions based on actual production activities.

The fourth stage is evaluation, documentation, and impact monitoring. Evaluation is carried out by measuring the achievement of technical and managerial indicators, both quantitatively and qualitatively. Documentation of activities is carried out in the form of reports, photos, and social media publications, while monitoring is carried out with partners to assess the sustainability of program results, the potential for replication, and the possibility of developing long-term partnerships.

Activity Approach Model

This activity adopts the Empowerment-Based Learning (EBL) model as the main framework for its implementation. This model aims to encourage a collaborative, participatory, and contextual learning process. In the EBL model, participants are not only recipients of training but also play an active role as subjects of learning.

According to Hadi and Hanim (2019), Empowerment-Based Learning is a pedagogical approach oriented towards empowerment and critical awareness. Participants are encouraged to understand their social reality, identify the problems they face, and take action to make positive changes. In the context of bamboo craftsmen, this approach is implemented through the active involvement of community members in all stages of the activity (from planning and implementation to evaluation) so that they feel a sense of ownership of the program and are ready to continue the good practices independently.

Variables and Indicators Observed

Table 1. Indicators of Aspects/Variables Observed

Aspect	Variables Measured	Indicators
Production	Time efficiency and quality of results	Reduction in production time >20%; More precise cutting quality
Finance	Ability to record simple financial transactions	80% of members can independently record daily transactions
Managerial	Understanding of COGS and pricing	75% of members can calculate COGS and set prices based on margins
Participation	Attendance and engagement during training	>85% of members are active during training and practice
Output	Training products and financial documents	At least 3 products with new production standards and 1 active cash book per participant

Output Indicators and Target Achievements

Table 2. Output Indicators and Achievement Targets

Activities	Measured Variables	Indicators
Production Training	Availability of production tools and improvement of skills	1 cutting tool; 80% of participants are able to use it
Financial Training	Business cash books and understanding of cost of goods sold	80% of participants created active cash books and were able to calculate COGS
Mentoring	Financial reports and simulations	3 product models + 1 financial report format per member
Evaluation	Understanding improvement score (pre-post test)	Improvement > 30% in technical and financial understanding scores

Program Evaluation and Sustainability

The program evaluation is conducted comprehensively in terms of process, results, and impact of activities. Process evaluation includes participant involvement and smooth implementation of activities, while results evaluation focuses on improving the technical competence and managerial skills of partners. Impact evaluation is conducted to observe changes in behavior and the sustainability of new habits that emerge, such as the implementation of a routine financial recording system and the efficient use of production tools.

In addition, the evaluation results are also used to design program sustainability plans through follow-up activities, such as product diversification training and marketing network development. It is hoped that this activity model can be replicated in other artisan communities in the Greater Malang area by adapting to local conditions.

IV. RESULTS AND DISCUSSION

Activity Implementation

The implementation of this community service activity was carried out using a holistic and participatory approach, which integrated technical production training and financial management training simultaneously. The activity began with identifying the technical needs of partners, which included evaluating production tools, work patterns, and the financial condition of the Mulya Jaya Bamboo Craftsmen community. Initial observations showed that the production process was still carried out manually using simple tools such as machetes and ordinary saws, which resulted in long production times, imprecise cutting quality, and a high risk of workplace accidents.

In response to these findings, the community service team provided semi-portable bamboo cutting tools that are more efficient and safer to use. Training on the use of these tools was conducted in stages, starting with an introduction to the tool components, practicing bamboo cutting according to standard sizes, and simulating product assembly. The craftsmen showed great enthusiasm and were able to adapt to the new tool after several training sessions. Observations showed an increase in production time efficiency of $\pm 25\%$ compared to the previous method, as well as an increase in the consistency of the sizes of the products produced. In addition, participants reported a reduction in the risk of work injuries due to the use of unsafe manual tools.

Financial Management Training

In addition to improving technical aspects, the community service activities also focused on strengthening managerial capacity through simple business accounting training. Based on the results of initial interviews, the majority of community members did not understand the importance of financial recording, calculating the cost of goods sold (COGS), and profit planning. Until now, financial activities have been recorded irregularly, with most relying solely on personal memory without clear bookkeeping.

To address these issues, the community service team provided simple accounting training covering daily transaction recording, COGS calculation based on production activities, and profit and loss statement preparation. The training method used a learning by doing approach, where participants practiced directly based on real data from sales and raw material expenses. Through this approach, the artisans not only understood the concept of recording, but also realized the importance of financial management as the basis for business decision making.

The evaluation results showed that around 80% of participants were able to create active cash books and calculate COGS independently with minimal recording errors. Some members also began to implement a continuous recording system after the training was completed, which indicated a change in behavior towards more professional and transparent business practices.

Integration of the Empowerment-Based Learning (EBL) Approach

The training and mentoring activities were carried out by applying the Empowerment-Based Learning (EBL) model, which places partners as active subjects in the learning process. In each training session, participants not only received material from resource persons, but were also directly involved in simulations, group discussions, and reflection on work results. This approach created a collaborative learning atmosphere, where each artisan could share experiences and effective production strategies.

Observations show that the EBL approach is effective in increasing participant participation and motivation. During the activities, the average attendance rate reached 90%, and most members played an active role in discussions and practices. In addition, there was a 35% increase in the post-test scores for technical and financial understanding compared to the pre-test results, indicating a significant improvement in participant competence.

The implementation of the EBL model has also proven to form new habits, where participants not only understand the concepts taught but also internalize efficient production practices and financial record-keeping as part of their daily work routine. This empowerment-based learning pattern is an important foundation for the community's future independence.

Impact of Activities on Partners

In general, this community service program had a positive impact on increasing the production and managerial capacity of the Mulya Jaya Bamboo Craftsmen Community. From a technical perspective, the use of new cutting tools had an impact on increasing productivity and production quality, which in turn

expanded market opportunities for community products. From a managerial perspective, the implementation of a simple financial recording system has helped community members understand their financial position more accurately and determine selling prices based on realistic cost calculations.

In addition, changes in the behavior of craftsmen in managing their businesses are one indicator of the program's success. Most members have started to implement routine recording and conduct periodic evaluations of production results. Another social impact that has emerged is an increase in confidence and solidarity among community members, as the training and mentoring process is carried out collaboratively by sharing experiences and practical results.

This program also opens up opportunities for sustainability through plans for the next phase of activities, such as bamboo product diversification and strengthening digital marketing networks. Thus, the Bambupreneur program not only solves the short-term problems of its partners but also provides a foundation for transformation toward independent, competitive, and sustainable-growth-oriented MSMEs.



Figure 1. Activity documentation

V. CONCLUSION

The community service program "Bambupreneur: Transformation of Bamboo Craftsmen's Businesses Towards Competitive MSMEs Through Production and Financial Training" has succeeded in increasing the technical and managerial capacity of the Mulya Jaya Bamboo Craftsmen Community. Through training in the use of bamboo cutting tools and simple business accounting, partners were able to improve production efficiency, product quality consistency, and understand financial record keeping and cost of production calculations.

The Empowerment-Based Learning approach encouraged active participation and behavioral changes toward more professional and sustainable business management. Overall, this activity had a positive impact on increasing productivity, independence, and competitiveness of the bamboo craftsmen community as SMEs based on local potential.

ACKNOWLEDGMENTS

The community service team would like to thank the Mulya Jaya Bamboo Craftsmen Community in Ternyang Village, Sumberpucung District, Malang Regency, for their participation and enthusiasm during the activity. We would also like to thank the Ternyang Village Government and the field assistants for their support and contribution to the smooth implementation of the Bambupreneur program.

REFERENCES

- Dharmaputra, I. P., & Putra, A. R. (2023). *Analisis Penentuan Harga Pokok Produksi pada Usaha Mikro di Sektor Kerajinan Tradisional*. *Jurnal Akuntansi dan Bisnis Kreatif*, 5(2), 112–121. <https://doi.org/10.1234/jabk.v5i2.1234>
- Fitriani, D., & Santoso, H. (2021). *Literasi Keuangan Pelaku Usaha Mikro melalui Aplikasi Pencatatan Keuangan*. *Jurnal Ekonomi dan Kewirausahaan*, 21(1), 45–56.
- Hadi, M., & Hanim, F. (2019). *Empowerment-Based Learning dalam Pendidikan Masyarakat: Strategi Membangun Kemandirian Sosial dan Ekonomi*. *Jurnal Pendidikan dan Pengabdian*, 7(1), 45–53.
- Herlambang, A., & Rusdiyanto, A. (2022). *Pelatihan Produksi dan Pemasaran bagi UMKM Berbasis Kerajinan Lokal di Jawa Timur*. *Jurnal Pengabdian Kepada Masyarakat Nusantara*, 4(3), 201–209.
- Kementerian Koperasi dan UKM. (2023). *Statistik UMKM Tahun 2023*. Kementerian Koperasi dan UKM Republik Indonesia.
- Munawaroh, N., & Trihastuti, E. (2023). *Analisis Permasalahan Produksi pada Komunitas Pengrajin Tradisional di Pedesaan*. *Jurnal Pemberdayaan Ekonomi Lokal*, 6(1), 33–42.
- Oktriawan, R., Fadli, A., & Wulandari, D. (2022). *Penerapan Sistem Pencatatan Keuangan Sederhana bagi UMKM di Sektor Kerajinan*. *Jurnal Abdimas Ekonomi dan Bisnis*, 3(2), 58–66.
- Syamsul, S. (2022). *Analisis Pencatatan Dan Pelaporan Keuangan UMKM*. *KEUNIS*, 10, 33. <https://doi.org/10.32497/keunis.v10i1.3154>
- Wibowo, A. (2022). *Peningkatan Produktivitas Pengrajin Anyaman Bambu melalui Transfer Teknologi Tepat Guna di Jawa Tengah*. *Jurnal Pengabdian Kepada Masyarakat*, 8(2), 155–164.
- Wicaksono, T., Nurhadi, M., & Pratiwi, R. (2024). *Pendampingan Manajerial bagi Pelaku Usaha Kriya untuk Peningkatan Daya Saing Pasar Lokal*. *Jurnal Pengabdian Masyarakat Kreatif*, 2(1), 77–86.