

## Training Program on Converting Furniture Waste Into Educational Play Tools in Karyamukti Village, Tomo District

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### ABSTRACT

The furniture industry in Karyamukti Village generates substantial wood waste that is largely underutilized, while demand for educational play tools continues to grow in early childhood and elementary education. This study aims to empower local furniture craftsmen by improving their skills in converting production waste into educational play tools and enhancing their digital marketing capabilities. A participatory community empowerment approach was implemented through observation, problem identification, hands-on training in producing educational play tools, and digital marketing assistance via online marketplaces such as TikTok Shop and Shopee. The program successfully produced five educational play tool prototypes: connecting word, intelligency stick, alphabet puzzle, shape puzzle, and domino number puzzle. Participants showed increased knowledge and practical skills in utilizing wood waste, along with improved ability to market products digitally. A positive shift in perception was also observed, with participants recognizing furniture waste as a resource with economic value. Integrating production training and digital marketing effectively enhances community capacity, increases the economic value of furniture waste, and supports sustainable local development. Continuous mentoring is recommended to ensure product quality and expand market access.

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## INTRODUCTION

Karyamukti Village, located in Tomo District, is a rural area where most residents rely on agriculture and small-scale industries for their livelihoods. One of the developing sectors in this village is the furniture industry, which produces various household items such as tables, chairs, and cabinets. However, these production activities generate a significant amount of wood waste, typically in the form of small leftover pieces that are often considered unusable. In practice, this waste is commonly discarded or used only as firewood, indicating that its economic potential has not been fully utilized.

At the same time, the demand for educational play tools continues to increase, particularly in early childhood and elementary education. Educational play tools are essential in supporting children's cognitive, social, and motor development through interactive learning activities. Recent studies show that learning media derived from recycled or waste materials can enhance children's creativity, engagement, and environmental awareness. Furthermore, transforming waste into educational play tools has been proven to improve participants' skills and understanding while promoting environmentally friendly learning practices.

However, previous community empowerment initiatives have predominantly focused on waste utilization or production skills without integrating effective marketing strategies. In addition, limited digital capabilities remain a major barrier for small-scale craftsmen in expanding market reach. Recent research highlights that digital marketing significantly improves the performance, visibility, and competitiveness of small and medium enterprises through enhanced customer engagement and broader market access. Despite this, the integration of waste-based product innovation with digital marketing training in community empowerment programs remains underexplored.

Based on this gap, this study proposes an integrated approach that combines the transformation of furniture production waste into educational play tools with digital marketing training. Therefore, the objective of this study is to empower furniture craftsmen in Karyamukti Village by enhancing their production skills in developing educational play tools from waste materials and improving their capacity to market these products through digital platforms.

## METHOD

This community empowerment program was conducted in Karyamukti Village, Tomo District, involving local furniture craftsmen as the primary participants. A participatory approach was applied through three main stages: preparation, implementation, and evaluation.

### Preparation Stage

This stage involved preliminary observations and coordination with community partners to identify key problems and needs. Data were collected through informal interviews and discussions with local stakeholders. The findings indicated two main issues: the underutilization of furniture production waste and limited knowledge of digital marketing. Based on these findings, training modules and implementation plans were developed, focusing on the production of educational play tools and the use of digital marketing platforms.

## Implementation Stage

The program involved 20 furniture craftsmen from Karyamukti Village. Activities were divided into two main components: (1) hands-on training in transforming furniture production waste into educational play tools, and (2) digital marketing training using online platforms such as TikTok Shop and Shopee. The training was conducted through demonstrations, guided practice, and mentoring sessions. Participants were actively involved in designing and producing educational play tools using available wood waste materials. The instruments used included training modules, design guidelines, and digital marketing tutorials to support participants' learning processes. The program also involved collaboration between furniture craftsmen and educational play tool distributors, particularly in developing marketplace-based marketing systems. Assistance was provided to establish online marketplace accounts as a key output of the program.

## Evaluation Stage

The evaluation was conducted to assess both the production outcomes and the effectiveness of digital marketing implementation. The first aspect of evaluation focused on the quality of products created by participants from furniture waste. This included assessing the functionality, creativity, safety, and suitability of the educational play tools according to children's developmental needs.

The second aspect evaluated participants' ability to implement digital marketing strategies, particularly through Shopee and TikTok Shop. This assessment included participants' ability to create product listings, present product descriptions, upload visual content, and manage online storefronts. In addition, initial indicators such as product visibility and engagement (e.g., views and interactions) were also considered as part of the evaluation. In addition to product assessment, the evaluation also considered the establishment and functionality of marketplace platforms as a primary output, as illustrated in the program framework.

Overall, the evaluation results were used to measure the improvement in participants' knowledge and skills, as well as to determine the effectiveness of integrating production training with digital marketing in increasing the economic value of furniture waste.

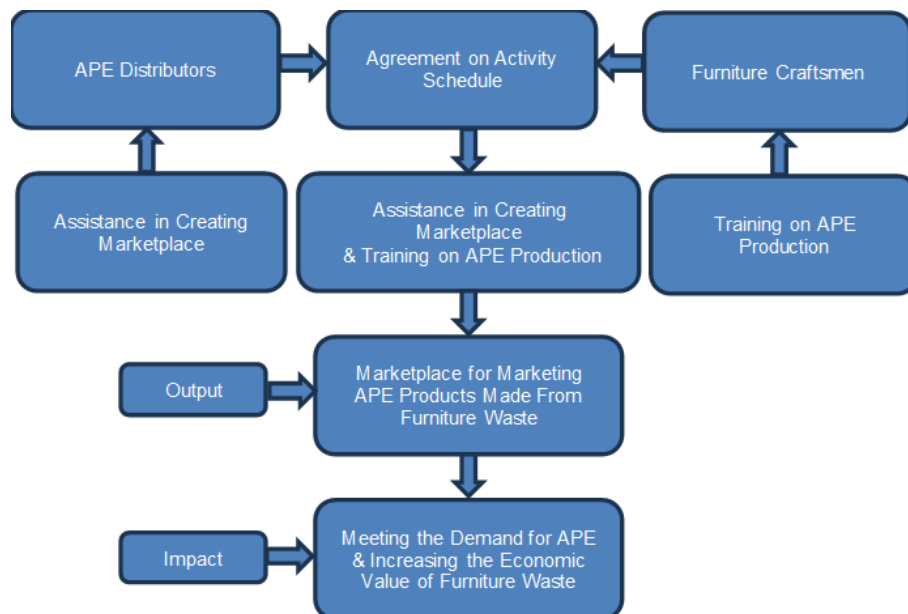


FIGURE 1.

## RESULTS AND DISCUSSION

### Result

Based on the implementation stages, community empowerment activities were carried out through training in the production of educational play tools and digital marketing. The program involved 20 furniture craftsmen from Karyamukti Village.

The results showed a significant improvement in participants' knowledge and skills. Before the training, most participants had limited understanding of how to utilize furniture waste and had no experience in producing educational play tools. After the training, 100% of participants were able to produce educational play tools independently, resulting in five types of products, namely connecting word, intelligency stick, alphabet puzzle, shape puzzle, and domino number puzzle.

In addition, participants demonstrated increased skills in digital marketing. All participants successfully created and managed online marketplace accounts using Shopee and TikTok Shop. Initial performance indicators showed that participants were able to upload product catalogs, write product descriptions, and display product visuals effectively. Furthermore, several products began to gain initial engagement (views and interactions), indicating the potential for market acceptance.



FIGURE 2. Presentation session



FIGURE 3. Educational Play Tools Product

## Discussion

The findings indicate that integrating waste utilization training with digital marketing can effectively improve both technical and entrepreneurial capacities of community members. The ability of all participants to produce educational play tools suggests that hands-on training methods are effective in enhancing practical skills, particularly in community-based empowerment programs. This is consistent with recent studies highlighting that experiential learning significantly improves skill acquisition in vocational training contexts (Rahman et al., 2023).

Furthermore, the transformation of furniture waste into educational products supports the concept of a circular economy, where waste materials are reused to create value-added products. Previous studies have shown that waste-based learning media not only contribute to environmental sustainability but also enhance creativity and innovation among participants (Erdaliameta et al., 2022).

The improvement in participants' digital marketing skills also demonstrates the importance of integrating technology into community empowerment programs. The successful use of Shopee and TikTok Shop indicates that digital platforms can expand market reach and increase product visibility for small-scale businesses. This finding aligns with recent research stating that digital marketing adoption significantly improves the competitiveness and business performance of micro and small enterprises (Sharabati et al., 2024).

Overall, the combination of production innovation and digital marketing creates a more sustainable empowerment model by addressing both supply (production) and demand (market access). This integrated approach not only increases the economic value of furniture waste but also strengthens the long-term sustainability of community-based enterprises.

## CONCLUSION AND RECOMMENDATION

### Conclusion

This study demonstrates that community empowerment through training in transforming furniture production waste into educational play tools, combined with digital marketing assistance, effectively improves the knowledge and skills of furniture craftsmen in Karyamukti Village. The program enabled all participants to produce functional educational products and utilize digital platforms for marketing, thereby increasing the economic value of previously underutilized waste. This integrated approach proves to be a practical strategy for supporting sustainable local economic development.

### Recommendation

To ensure sustainability, continuous mentoring and technical assistance are needed to maintain product quality and consistency. Future programs should strengthen collaboration with local governments and educational institutions to expand market access. In addition, advanced training in product innovation and digital marketing strategies is recommended to enhance competitiveness.

Limitations: This program was limited to a small number of participants (20 craftsmen) and a short-term evaluation, focusing mainly on initial production outcomes and early-stage digital marketing performance. Further studies are needed to assess long-term business sustainability, market growth, and broader socio-economic impacts.

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