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Development of Accessories Business Product from Internal Tire Waste, in the Buttatianang area, Rappojawa Village, Tallo District, Makassar City

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Abstract

The Buttatianang community in the Rappojawa Village area generally complains about the large number of used inner tires found at the partner's retreading business in Rappojawa Village, which causes waste collection that is not useful and has an impact on protecting the waste ban. Processing waste into accessories requires expertise and creativity in processing this waste into useful products. Community potential is enhanced by providing opportunities and skills to increase family economic income. The implementation method is using Participatory Rural Appraisal (PRA). As a result of the implementation of training and skills activities, several product designs were obtained in the form of accessories for earrings, brooches, hijab fasteners, bracelets, and various product accessories for mask straps. The product is packaged in a neater container, looks attractive and unique, and invites consumer interest to buy. These products can be used as souvenirs for domestic tourists and international tourists. The implementation of PKM activities by lecturers and students, so as to minimize waste reduction from retreading ban businesses.
Keywords: Inner tube, Waste, Accessories

INTRODUCTION

In community activities in the Buttatianang area, the majority work as businesses in the field of tire retreading. From the retread processing business, there is waste produced in the form of inner tubes which are not utilized as an effective product. Because of this, some of the Buttatianang people who live in the Rappojawa Village area complain about the accumulation of Used Inner Tubes at the Outer Tire retreading business site in Rappojawa Village owned by partners, which over time become useless waste and have an impact on the accumulation of waste tires. The existence of waste tires, of course, affects the comfort level of the people who are quite dense around the area.

If used tires are burned, it will have a negative impact on health and the environment. The inner tube material contains 25 percent extender oil derived from benzene, styrene, benzene derivatives, and butadiene. The process of burning used tires will change their contents into gas and smoke which contains fine zinc oxide particles which can cause inflammation in the lungs. In addition, burning tires will also produce emissions of dioxins and mercury which are carcinogenic or trigger cancer and at the same time increase the concentration of greenhouse gases (Asih Anna 2015).

As a result of the accumulation of used inner tube waste, it is deemed necessary to provide experts and professionals to utilize the waste into useful products. Besides that, the potential of the community can be increased by providing opportunities and expertise in terms of increasing family economic income. This will certainly have an impact on facing future challenges and attracting Foreign Investment, many things must be considered such as improving the legal framework, increasing awareness, developing business development services, and, the role of institutions and external financing (Mokhtar 2016).

While the results of (Kunusa and Ibayu 2020) dedication stated that this activity was to instill public awareness of the importance of preserving the environment by sorting inorganic waste and fostering an entrepreneurial spirit in the community, especially mothers so that they have the power to be able to manage waste into something of high selling value.

In a journal report produced (Kurniadi 2014) it was reported that large production is able to absorb inner tube waste and overcome environmental problems. In addition, research reports

from (Satyagraha 2018) show that the addition of used vehicle rubber tires and carbide waste filler affects the asphalt characteristic values in the Marshall test. The more the level of used rubber tires increases, the VIM, VMA, stability, and MQ values will increase. So, from some of the results of the reports that have been described, it can be concluded that expertise and creativity are needed to empowering this waste into useful products. In addition, the potential of the community can be increased by providing opportunities and expertise in terms of increasing family economic income.

In the training method, several related work steps are carried out with training materials and practices, such as material explanations regarding processes and types of creativity that can be produced from waste into goods of economic value and useful (Rohana, Syamsia, and Syarif 2022).

Currently, the condition of the partners, along with the residents of Buttatianang, is quite apprehensive since the Covid 19 pandemic took place. The demand for market needs for retreaded tires has experienced minimal production so that the accumulation of waste is not properly processed, as well as the lack of creativity of residents due to limited mentors in providing skills training regarding waste management, especially used tires.

From this explanation, the PKM Team carried out activities "Improving the Economy through the Development of Business Products for Accessories and Calligraphy Decoration from Used Tires, in Rappojawa Village, Tallo District, Makassar, with the aim of:

- Add insight into the impact resulting from the accumulation of used inner tube waste
- Provide an understanding of the types of products that will be produced from used inner tube waste
- To find out the types of tools and models that can be used in waste processing of Used Inner Tubes
- To produce products in large quantities due to low knowledge of partners regarding the use of waste
- Provide knowledge on how to promote and market the products produced.

METHOD

Implementation Method

Themethod carried out is the application of Participatory Rural Appraisal (PRA) (Samsudin et al., 2017) in improving the economy through the development of accessories business products from used waste inner tubes in the Buttatianang area of Rappojawa Village, Tallo District, namely:

Preparation

- 1). Survey method, by conducting observations on the area, and conducting interviews about other community activities besides the vulcanizing business
- 2). Peexercise method, by conducting socialization activities to the community about how to process inner tire waste, which only becomes a pile of useless garbage.
- 3). The question and answer method inskill training activities, to evaluate the level of understanding from the community about the material provided and to obtain other information related to waste tires. With the question and answer session, it can be known about the public's interest and interest in participating in the skills training.

Skills Training

- Mitra provides a place d i Kelurahan Rappojawa Kecamatan Tallo Kota Makassar
- Provide data information related to waste materials needed and input in the product manufacturing process and product marketing.
- Contribute to providing waste materials.
- Help in the process of assembling tools and assisting in the design of models of accessories and decorations at the place of activity.
- Follow all forms of activities carried out.
- Maintain grant tools and use them in the production process continuously
- Periodic monitoring and evaluation.

In achieving the target and realizing the output, the method of implementing activities is carried out into 4 main groups, namely:

- Determining the model and how to determine the model based on the level of market share needs.
- Provision of production tools for the implementation of a predetermined model.
- Equipment application; In applying the tool, a product will be made using the manual system printing tool that has been provided.
- Finishing products for the market.

Results and Achievement of Goals

This activity was carried out while still complying with health protocols, the PKM Team distributed masks and hand sanitizers to be used during the activity. This activity is carried out when buttatianang residents have carried out household activities, namely at 10.00-12.00 and 13.30 - 15.30, and is intended for residents who do not have any activities, participants are productive housewives, and participants are residents who live close to the vulcanizing business area.

Results of Activity Implementation

PKM activities are carried out in stages, with the first day's stages being prepared and socialized, including:

- Preparation and socialization activity do with court teaching materials and tool, drawing for training activities,
- Participants were identified through the introduction of the PKM Team through community leaders (vulcanizing business owners), as well as briefings from community leaders.
- Socialization was carried out about the types of skills that can be done from the waste tire business that is no longer used by the PKM Team.
- A brief explanation of UMKM (Usaha Mikro Kecil Menengah), as a reference partner in pursuing a tire accessories skills business.

Figure 2. Socialization activities and clarification of training materials

Figure 3. Activities implementation of training and skills

- Introduction and methods of use of the tools used in skills training.
- The question and answer session as a form of participant response in the continuation of PKM activities to the next stage, namely implementation practice.

Figure 4. Types of fittings used

For the next stage, namely, the implementationof PKM with the following working steps:

- Sorting waste tires that are still quite flexible and do not expire
- Cleaning and washing tire rubber and drying
- Design pola accessories on paper
- Cutting dry tire rubber
- Engraving tire rubber based on prepared patterns
- Scraping and tidying up the results of engraving accessories
- Complement the ornament accessories with additional ornaments such as hooks, hangers, buttons, ropes and so on.

Figure 5. Process of implementation of accessories

Figure 6. Results of the implementation of the practice of accessories skills

The results of the training activities and skills of used inner tube accessories, obtained several product design results in the form of earring accessories, brooches, hijab tongs, bracelets and various mask strap accessories products. The product will be packaged in a neater container, to make it look attractive and unique, and invite the attractiveness of consumers to buy. These products can be used as souvenirs for domestic tourists as well as international tourists.

Goal Achievement

Theimplementation of the practice of training and skill accessories from used inner tubes, received a very good response from several communities living in the Buttatianang area. During the implementation of the activity, the community was quite enthusiastic in various questions

related to good engraving techniques and methods, especially in parts that were fairly difficult and poorly understood about the use of good and correct tools. Community or partner, seeks to complete the task or type of skill that has beenworked on.

With the PKM implementation activities held by the PKM Team consisting of lecturers and students, so that the handling of waste reduction from the vulcanized tire business, automatically becomes reduced. Tire vulcanizing entrepreneurs are even more eager to develop their business in the field of accessories through UMKM and market products through social media.

This activity has been recorded through the Youtube channel, so that at any time partners can look back at the tutorial on implementing accessories skills from used inner tubes and become a new breakthrough in developing the business, if similar businesses are in demand by other people, who want to develop a business in the field of accessories.

The implementation of PKM activities is an interesting experience for the community, as well as the PKM Team itself, especially in reviewing environmental accounting and form aesthetics courses.

Science and Technology Application

Socialization is carried out through the delivery of material. Recycling waste will raise awareness and show the public that waste tires can be reused. Socialization is carried out to get a direct reaction from the community. So you can quickly see the interest and enthusiasm of the people.

This biodegradable material can actually be recycled into commodities if it can be used creatively and innovatively. On the other hand, products made from waste tires, if they can be traded, can also be a creative business program for the community. Waste from end-of-life tires treated can also reduce the environmental impact of abandoned old tires (Windiasty 2019).

Program Sustainability

Sustainability of the training program the accessory skills of used inner tubes in the Buttatianang area of Rappojawa Village, Tallo District, in the future will penetrate Go international. And the continuity of the training and skills, will continue to the marketing level program of assets that are of economic value and selling value, and continue to innovate, so that the business remains up to date, even though various other activities continue to develop and innovate.

This activity is also more focus on the assistance provided exercises in terms of improving the economy in the UMKM sector. The implementation of the mentoring method for the community will still be carried out when the community (partners), still want to develop their potential to become a more qualified business.

CONCLUSIONS

Based on description research has activity pecarry out skills training accessories to improve business products from waste tires, The PKM Team concluded that:

- The activity it can be carried out well and smoothly, thanks to the optimal role and from the community (partners), as well as strong support from community leaders.
- Improving the business economy from the products produced, basically can be applied to UMKM (Usaha Mikro, Kecil dan Menengah)
- Various work programs that have been carried out, add insight and open a space for thinking for each participant (partner) about the use of waste that is of economic, educational and creative value
- Waste tires, which have been quite troubling due to accumulation and unpleasant odors, have become an innovation that brings profit.

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REFERENCES

Asih Anna, Purwanti. 2015. "Peluang Usaha Ekonomi Kreatif Dari Ban Bekas Truk." Kompasiana.Com. 2015. https://www.kompasiana.com/purwanti_asih_anna_levi/552ae7336ea834e334552cfd/menang guk-untung-dari-ban-bekas-truk?page=all&page_images=3.

Kunusa, Wiwin, and Hendri Ibayu. 2020. "Pemberdayaan Masyarakat Desa Pangi Dalam Pengolahan Limbah Organik Dan Anorganik." *ABDIMAS: Jurnal Pengabdian Masyarakat* 3 (2): 329–41. https://doi.org/10.35568/abdimas.v3i2.960.

Kurniadi, Steven. 2014. "Pemanfaatan Limbah Ban Dalam Bekas (Inner Tube Project)." *Product Design* 3 (1): 180219.

Mokhtar, Nermin. 2016. "Use of Waste-Tire Materials in Architectural Application in Egypt." *International Journal of ChemTech Research* 99 (1212): 14–27. http://www.sphinxsai.com/2016/ch_vol9_no12/abstracts/A(14-27)V9N12CT.pdf.

Rohana, R, S Syamsia, and A Syarif. 2022. "Pelatihan Pemanfaatan Limbah Dalam Perencanaan Taman Ekowisata Di KTH Lamperangan." *… Seminar Nasional Kkn …* 1: 51–58. https://journal.unismuh.ac.id/index.php/kknmas/article/view/9131.

Samsudin, Asep Muhamad, Mohamad Djaeni, Idris, and Salman Fathoni. 2017. "Prosiding Seminar Nasional Pengabdian Masyarkat "Kontribusi Pengabdian Kepada Masyarakat Dalam Meningkatkan Cluster Perguruan Tinggi"." *Penerapan Teknologi Tray Dryer Pada Pengeringan Dendeng Jantung Pisang Di Kelurahan Rowosari Kota Semarang*, no. September: 31–37.

Satyagraha, Fauzi. 2018. "Pengaruh Penambahan Limbah Ban Dalam Bekas Kendaraan dan Filler Limbah Karbit pada Laston (ac-bc) terhadap Karakteristik Marshall." Yogyakarta. https://eprints.uny.ac.id/62644/1/1. Fauzi Satyagraha 15510134030 A-.pdf.

Windiasty, Ananda Dea. 2019. "Pemanfaatan Limbah Ban Bekas Untuk Menunjang Perekonomian Masyarakat."