



Empowering Community Workshosp to Improve Social Welfare through Innovation in Dolok Merawan

Fadli¹, Paidi^{1*}

¹[Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia]

Abstract. Innovation plays an important role in realizing the ninth goal of sustainable development growths (SDGs), which focuses on increasing industrial capacity and industrial inclusiveness. Partners in this community service program are business actors in the welding workshop sector who have been running their business since 2007. Our Partners still unable to manage their finance. The failures in financial management make it difficult for partners to renew existing equipment. This condition causes the work environment to be not conducive. In addition, the lack of marketing activities means that partners have never received orders from outside their region. This community services want to solve these problems by transferring science and technology as well as additional assistance and capital provided to business actors. The involvement of students in this service program will encourage the implementation of their knowledge by carrying out learning activities outside the campus in the business world. This dedication shows a change in the behavior of business actors, especially in the field of occupational health and safety. Partners have started to separate business and household finances. Unfortunately, the optimization of business digitalization is still not optimal.

Keyword: Innovation, Workshop Management, Financial Behaviour, Digitalization

Abstrak. Inovasi memegang peranan penting dalam mewujudkan tujuan kesembilan dari sustainable development growths (SDGs) yang fokus kepada peningkatan kapasitas industri dan inklusifitas perindustrian. Mitra pada program pengabdian masyarakat ini merupakan pelaku usaha pada sektor bengkel las yang telah menjalankan usahanya sejak tahun 2007 lalu. Mitra masih belum mampu mengelola keuangan. Efisiensi kegiatan operasional menjadi menurun. Selain itu kurangnya aktivitas pemasaran membuat mitra belum pernah menerima pesanan dari luar wilayahnya. Pengabdian ini berupaya menyelesaikan permasalahan tersebut dengan transfer ipteks sekaligus pendampingan dan permodalan tambahan yang diberikan kepada pelaku usaha. Keterlibatan mahasiswa dalam program pengabdian ini akan mendorong implementasi keilmuannya dengan melakukan kegiatan pembelajaran di luar kampus dalam dunia usaha. Pengabdian ini menunjukkan perubahan perilaku dari pelaku usaha terutama dalam bidang kesehatan dan keselamatan kerja. Mitra sudah mulai memisahkan keuangan. Sayangnya optimisasi digitalisasi usaha belum optimal.

Kata Kunci: Inovasi, Manajemen Perbengkelan, Perilaku Keuangan, Digitalisasi

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*Corresponding author at: Jl Prof. T.M. Hanafiah, Kampus USU, Medan, Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia

E-mail address: paidi@usu.ac.id

1 Introduction

Micro, small and medium enterprises (MSMEs) are the pillars supporting the largest economy in Indonesia. Existing data shows that the number of MSMEs currently reaches 64.2 million businesses with a contribution of 61.07% of all of Indonesia's Gross Domestic Product. MSMEs also contribute to absorption of up to 97% of the entire workforce in Indonesia [1]. Indonesia has gone through various crises, starting from the 1998 crisis, the global financial crisis in 2008 has been well experienced by the MSME sector [2]. The acceleration of economic recovery is strongly supported by the strength of the supporting pillars of micro, small and medium enterprises [3]. Therefore, in dealing with the COVID-19 pandemic that has entered Indonesia since the first quarter of 2020, the government is optimistic about the strength and resilience of MSME players.

The COVID-19 pandemic has become a new challenge for business actors where various social life activities have shifted towards new habits [4]. In the first year of the pandemic, many businesses experienced difficulty adapting and lost a lot of income and economic turnover. Uniquely, in the second year, many business actors are starting to survive the pandemic conditions through innovation in marketing through e-commerce platforms [5].

The transition to e-commerce, which is a major solution in the trade sector, is not in line with business development in the workshop sector. Community products in the workshop sector are difficult to market online through the available e-commerce platforms. Pandemic times are a very big challenge for businesses to continue to survive. Therefore a breakthrough is needed to support this business sector. Workshop-based business units from one side strongly support the ninth goal of Sustainable Growth Developments (SDGs) which seeks to build innovation in the industrial sector [6]. This service involves economically productive business partners engaged in the workshop sector, specifically welding workshops and workshop production workshops.

1.1 Community Services Partners

The partner business is located in Dusun I, Jl. Youth of Dolok Merawan Village, Serdang Bedagai, North Sumatra near the Al-Hidayah Mosque. This location is located about 103 KM from the University of North Sumatra and can be reached in approximately 2 hours via the Medan-Tebing Tinggi Toll Road. This business has been occupied by partners since 2007 and has survived through the COVID-19 pandemic. Partners previously had 8 employees empowering local communities but had to reduce to 6 people due to a significant drop in demand during the past pandemic.

1.2 The Problem

In general, there are major problems that need to be assisted in solving community service activities, namely production management, marketing and finance. Financial problems implicitly

trigger various other problems that arise in the partner's business unit. Funds that are not invested in equipment renewal eventually raise problems in business operational activities.

The evaluation results and interviews conducted by the proposer with the business owner indicate that so far there has been no financial separation between business finance and household finances. This condition indicates a low level of financial literacy for business actors, thus providing a pseudo or unreal financial picture of business finance. This condition gives an erroneous picture of operating income that is charged to household needs [7]. It is necessary to educate and socialize business financial management within the scope of the partner group. From a production management perspective, there are many inefficiencies in production activities [8]. Even though in general the implementation of production activities currently does not cause significant problems, it does have an impact on the health of workers with inadequate equipment to meet consumer demands. In this case, it is necessary to maintain the equipment owned by partners as well as provide sinking fund technology transfers so that business actors can update production support equipment regularly. In terms of marketing activities, there is no visible marketing activity that can attract market demand on a wider scale. Business actors have not implemented e-commerce because they feel that their market is not in a digital environment. In fact, the implementation of e-commerce can build broader demand in the future. In this case the community service implementation team will help implement e-commerce to provide greater market opportunities.

1.3 Interlinkage SDGs

The implementation of this community service activity carries the acceleration of achieving one of the eight SDGs goals which is a priority for the University of North Sumatra. This service activity carries out the achievement of the eighth goal of the SDGs which seeks to build innovation in increasing an inclusive and sustainable industry. Specifically, this service activity supports the improvement of innovation and business management. Partners have interesting innovation capabilities in building attractive businesses and industries.

2 Proposed Solution

The first problem to be resolved relates to partners' behavior and understanding in managing business finances. The challenges in managing business finances are indeed very difficult for business actors who have not obtained proper financial literacy. Many cases show that business actors are forced to close businesses that are actually profitable because of financial mismanagement. Profits generated by business operational activities are often covered by burdens on household finances which mix household finances with business finances. As a result, business activities that are actually productive look no longer promising [9]. In an effort to avoid the same mistakes from happening, it is necessary to transfer knowledge in the form of transfer of science and technology to the financial management of the business. There are two points of emphasis

that will be emphasized in this transfer of science and technology, namely business financial management and business asset management so that the business can run sustainably [10]. The measure of the achievement of the success of this solution is a change in partner behavior in applying science and technology which can be seen from good bookkeeping and financial separation of the business actors.

The second problem is related to production management from partner workshops. Knowledge transfer will be given regarding ideas for the specialization of each worker in the workshop. Specialization does provide its own advantages and disadvantages, both of which will be conveyed to business actors regarding their implementation plan in the business management. Production activities that are currently happening often provide extraordinary fatigue for workers who are still using obsolete equipment. In this case the implementing team will provide equipment assistance which is the basic capital to improve and develop partner businesses. In order to avoid the same mistakes occurring with the difficulty of procuring replacement equipment, the science and technology offered in the first solution will greatly assist this management. The measure of the success of this solution is an increase in business competitiveness which can be demonstrated through the average product completion speed.

The last issue raised in partner priority issues is business marketing management. In the marketing concept of a product, it is necessary to introduce the product so that it can be better known by prospective buyers. Market coverage from partners currently only revolves around local businesses so they cannot provide a broad target consumer. With advances in marketing technology in the digital era (e-marketing), the team will assist in the transfer of science and technology related to marketing activities. As a start, the dedication team will prepare a website to introduce businesses and various business innovation products from partners to the wider community digitally. Furthermore, this service will involve students to provide assistance for these marketing activities. The measure of the success of this solution is an increase in demand from digital media that generates at least one new consumer from digital marketing activities.

3 Method

The service activities proposed in this proposal are carried out with a participatory approach. The service team together with students participate in efforts to increase innovation in the field of production and marketing from business actors. In an effort to ensure that the solutions provided are effective for partner problems, an approach will be taken through focus group discussions as a form of confirmation of the problems faced by partners and partner workshop employees. The implementation team will exercise control over the entire series of service activities. Students who are involved will assist the application of science and technology provided by business actors in developing even better financial management, production innovation and production techniques, as well as digital marketing activities.

The following work procedures are prepared to support the achievement of outcomes which are the goal of implementing this service and solving partner problems. The stages of implementing this community service include, (1) Coordination and hospitality with the owner of the Putra Mandiri welding workshop business in Dolok Merawan Village to discuss plans for implementing community service activities to achieve the expected outputs. (2) Prepare for the implementation of the planned transfer of science and technology to business actors. (3) Socialization and assistance in the separation and recording of business finances accompanied by the students involved. (4) Procurement of production support equipment and innovation to increase partner competitiveness. (5) Website development as a marketing medium from business partners (7) Assistance in marketing activities involving community service students.

Partners play an active role in facilitating and supporting the implementation of this community service that is going well. The contact person with the workshop as a partner is a business owner who has agreed to become a service partner. The schedule for the implementation of socialization and mentoring plans is adjusted with partners. Partners will receive the presence of the service implementing team and students who will support the implementation of the service. A dedication signboard will be installed at the partner's business location.

4 Result and Discussion

Previous partners have made innovative products such as a table with a fish pond made from used drums and glass underneath. This innovative product is able to function as expected, but in terms of workmanship it still seems untidy and reduces the quality of the partner's work. The main problem felt by partners from the work is inadequate equipment support.



Figure 1. Partners' Product Based on Barrel Reuse

Equipment owned by partner businesses is classified as very basic equipment to be able to provide welding workshop services. The temperature of the electric welding machine that is too high

makes the iron melt too much in the process of gluing the existing tools. This condition makes the work of the partner from the workshop he owns seem untidy. In this case, one of the service implementing teams will provide equipment support assistance to develop innovation and service partner businesses.

The list of equipment provided to partners to support business activities and product innovation includes:

Table 1. Equipment Assistance for Partners

No	Product	No	Product
1	Bor Tangan Hyper	7	Stang Las Blender
2	Bor Tembok R/7	8	Kompresor Mini Otomatis
3	Bor Duduk 10mm HL	9	Grenda Duduk 14 Inch
4	Kompresor Complete Set	10	Grenda Tangan 4 Inch
5	Spray Gun	11	Bending Pipa 20mm
6	Trafo Las Listrik 450W	12	Bais Duduk

The provision of assistance equipment listed in Table 4.1 is one of the partners' expectations that have been planned for future business development. In this case the service team assists in accelerating the service partner's business development plan.

In carrying out the pre-survey of community service activities, three common problems were identified that occur in the business management of partner groups. First is the problem of business finance. Partners are still mixing up finance from business activities with household activities. Partner businesses are operationally combined with capital obtained from households. This problem will complicate the management of partner businesses so that profits or losses are not recorded correctly, which leads to misunderstanding of the interpretation of the results of business activities. The implementation of community service activities is carried out with counseling which is then followed by the assistance of dedicated students to help familiarize partners' financial reporting.

The next problem is the inefficiency of business operations. Partners have not optimally carried out occupational health and safety practices. In its implementation activities partners are reminded again regarding the importance of occupational health and safety, especially in the partner business sector which uses high voltage and high temperature equipment in practice. Spatial arrangements for equipment storage are also provided so that partner workshop workshops are neatly organized and implement regular and scheduled maintenance for partner work equipment. Students also take a role in increasing the operational effectiveness of partner businesses.



Figure 2. Usage of Google for Eyes Protection

Figure 2 shows partners starting to implement minimum safeguards against work practices. Even so, partners have not actively used hand and foot protection at work because they feel it is still not optimal to maintain precision when working. Partners are aware of the importance of this equipment in iron welding activities and assembling products, but due to habits, partners have not fully implemented this. Because this dedication is also a "process" this is a good progress for partners and their business in implementing occupational health and safety. In the future, it is hoped that partners will become more accustomed to using equipment to support the health and safety of these partners.

From a marketing perspective, partners have not implemented e-commerce activities that can help partner business activities. There are no marketing activities carried out pro-actively to business partners. In the service activities carried out, counseling materials are given related to the implementation of various marketing activities that can be done online. Online marketing was chosen because it can achieve very broad market access with the most efficient costs. Students also take a role in increasing the marketing activities of partner businesses.

Implementation of activities that have been carried out seeks to achieve changes in partner behavior in absorbing science and technology and technology that contain elements of novelty from partner business activities. This evaluation is based on three targets for achieving service activities related to partner problems and development, including: (1) increasing partner production innovation, (2) improving financial management; and (3) marketing digitalization. The results of the evaluation of community service activities that have been carried out are summarized as follows:

Table 2. Project Evaluation

Aspect	Target	Result	Evaluation
Innovation	Improvement of product quality	Assistance of Equipment Support for a better quality and line of product	Best (100%)
Financial Behaviour	Segregation of Financial Management	Overall their behaviour has improved however the bill for electricity was still mixed in	Good (85%)
Digital Market	New Online Order	1 order from digital platform	Best (100%)

Table 2 shows that in terms of innovation, partner businesses have experienced good development. The science and technology provided is accompanied by the provision of equipment to support partners' operational activities to produce innovative products. Previously partners produced products that were less tidy due to inadequate equipment. The renewal of equipment that has been provided to partners has effectively increased the quality of partner production and expanded partner production.

Training and mentoring activities related to business finance have also shown satisfactory results. In general, partners have updated their business financial behavior patterns by no longer mixing business activities with household finances. Unfortunately, household electricity is integrated with business activity electricity so partners still have difficulty separating business electricity finances from household activities. In general, this achievement has been quite good and partners have understood the importance of separating household finances from business activities.

In terms of marketing activities, the targets that had been previously set were well achieved, but in practice this digitalization activity was still not optimally accepted by partners. Partners are currently still not used to carrying out active promotional activities. Partners prefer to receive direct orders rather than carry out promotions and marketing to increase demand for services from business partners. In this case the transfer of science and technology is still not effective, but the previously determined target has been achieved.

5 Conclusion and Recommendation

The community service activities carried out by the University of North Sumatra service team together with the service partner, Putra Mandiri Dolok Merawan Welding Workshop show that an increase in the quality of products made by partners can be achieved through the support of partner operational equipment. Partners' creative power is strictly limited by previously available equipment. Separation of business finances from households is still not fully applicable. Getting

used to new habits to separate finances is a difficult thing to do but efforts are being made for better business management. The use of occupational health and safety equipment as operational support is also still in the habituation stage. In general, this tool exists to support the health and safety of partners, but partners feel that work accuracy can be hampered because of this equipment. It takes time for new habits in partner work activities. Marketing activities are still not optimal. Partners are still not used to carrying out promotional and marketing activities through online channels.

Common problems of business actors generally occur in ineffective business management. Shared concerns and shared tasks in developing the capabilities of business actors need to be carried out by building synergies between academics, the government and the business world in the future. Business management, especially good financial management, really needs to be done to separate business and household finances. This needs to be done so that the profitability and work results of the business are not mixed with finances. In this case it is necessary to provide assistance on how business actors can manage their finances better.

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REFERENCES

- [1] Kementrian KUKM. Perkembangan Data Usaha Mikro, Kecil, Menengah, dan Usaha Besar. *Www.Depkop.Go.Id*, 2000(1), 1. Retrieved from <http://www.depkop.go.id/data-umkm>. 2021
- [2] Filho, E. E., Albuquerque, A. F., & Nagano, M. S.. Identifying SME mortality factors in the life cycle stages: an empirical approach of relevant factors for small business owner- managers in Brazil. <https://doi.org/10.1186/s40497-017-0064-4>. 2017
- [3] Mihaiu, D. M., Opreana, A., & Cristescu, M. P. Efficiency, effectiveness and performance of the public sector. *Romanian Journal of Economic Forecasting*, 13(4), 132–147. 2010
- [4] Muhyiddin. Covid-19, New Normal, dan Perencanaan Pembangunan di Indonesia. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, 4(2), 240–252. <https://doi.org/10.36574/jpp.v4i2.118>. 2020
- [5] Handarkho, Y. D. *The intentions to use social commerce from social, technology, and personal trait perspectives: analysis of direct, indirect, and moderating effects. Journal of Research in Interactive Marketing* (Vol. 14). <https://doi.org/10.1108/JRIM-10-2018-0137>. 2020
- [6] Abuiyada, D. R. Traditional Development Theories have failed to Address the Needs of the majority of People at Grassroots Levels with Reference to GAD. *International Journal of Business and Social Science*, 9(9), 115–119. <https://doi.org/10.30845/ijbss.v9n9p12>. 2018
- [7] Zameer, H., Alireza, S., NISAR, W., & AMIR, M. The Impact of the Motivation on the Employeeâ€™s Performance in Beverage Industry of Pakistan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(1), 293–298. <https://doi.org/10.6007/ijarafms/v4-i1/630>. 2014

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- [8] Stevenson, W. J. *Operations Management*. New York: McGraw-Hill Education. 2015
- [9] Grohmann, A., Killhs, T., & Menkhoff, L. Does Financial Literacy Improve Financial Inclusion? Cross Country Evidence. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3034178>. 2017
- [10] Harris, Michael L. Shanan G. Gibson, Sherrie R. Taylor, T. D. M. Examining the Entrepreneurial Attitudes of Business Students: the Impact of Participation in the Small Business Institute. *USASBE 2008 Proceedings - Page 147*, (June 2014), 7–33. Retrieved from http://u.osu.edu/juliefox/files/2015/08/ORGANIZATIONAL_ENTREPRENEURS_HIP_AND_THE_ORGANIZ-2aqhqar.pdf. 2008