

Sustainability in Agriculture Management: Role of Social Enterprises in Creating A Better World  
(*Kelestarian dalam Pengurusan Pertanian: Peranan Perusahaan Sosial dalam Mewujudkan Dunia yang Lebih Baik*)

MUHAMMAD AMINUDDIN\*, MUHAMMAD AFIQ NAJMI & AMIRUL ASHRAF

ABSTRACT

Social enterprises promoting sustainability in agriculture management have evolved and aligned with marginalization over decades. Due to social science criticism, the social component has been progressively incorporated into sustainability concepts and assessments. However, this advancement has yet to result in a comprehensive knowledge of the social component. Thus, this paper aims to examine how social enterprises help in managing agriculture sustainably and improve the globe. A quantitative method is employed in this paper with 96 respondents as well as considering primary data in identifying key factors and practices social enterprises adopt to enhance sustainability in agricultural practices. These businesses use their strategies to address environmental, social, and economic issues. Social enterprises help the agriculture industry transform for the better by including practices such as fair salaries, environmentally friendly production, waste reduction, and community assistance. Their efforts are exemplified by organizations like Fair Trade USA, Alter Eco, and The Rainforest Foundation. The difficulties faced include needing more capital, complicated regulations, and competition from non-sustainable enterprises. Cooperative collaborations with established businesses and authorities can resolve these problems. A distinct mission, solid connections, openness, partnerships, and efficient marketing are essential success criteria. Consumers play a crucial part in assisting these businesses by purchasing sustainable goods, raising awareness, and pushing for change. The report highlights social enterprises' potential to move agriculture towards sustainability and makes suggestions for improvement. It investigates how social enterprises affect several facets of sustainable agriculture, including community empowerment, environmental preservation, and mitigating climate change. In order to reach a more sustainable future, stakeholders must continue to support social enterprises, which are critical to advancing sustainability in agriculture. Lastly, my findings on this research are social enterprises could play a significant role in promoting sustainability in agriculture management, challenges faced by social enterprises in the agriculture sector, types of collaborations by social enterprises, and factors to successful collaboration.

Keywords – Agriculture management, Environmental challenges, Social enterprises management, Sustainable agriculture

ABSTRAK

*Perusahaan sosial yang menggalakkan kemampanan dalam pengurusan pertanian telah berkembang dan sejajar dengan peminggiran selama beberapa dekad. Disebabkan oleh kritikan sains sosial, komponen sosial telah dimasukkan secara progresif ke dalam konsep dan penilaian kemampanan. Walau bagaimanapun, kemajuan ini masih belum menghasilkan pengetahuan yang komprehensif tentang komponen sosial. Oleh itu, kertas kerja ini bertujuan untuk mengkaji bagaimana perusahaan sosial membantu dalam menguruskan pertanian secara mampan dan menambah baik dunia. Kaedah kuantitatif digunakan dalam kertas kerja ini dengan 96 responden serta mempertimbangkan data utama dalam mengenal pasti faktor utama dan amalan yang diguna pakai oleh perusahaan sosial untuk meningkatkan kemampanan dalam amalan pertanian. Perniagaan ini menggunakan strategi mereka untuk menangani isu alam sekitar, sosial dan ekonomi. Perusahaan sosial membantu industri pertanian berubah menjadi lebih baik dengan memasukkan amalan seperti gaji yang adil, pengeluaran mesra alam, pengurangan sisa dan bantuan masyarakat. Usaha mereka dicontohi oleh organisasi seperti Fair Trade USA, Alter Eco, dan The Rainforest Foundation. Kesukaran yang dihadapi termasuk memerlukan lebih banyak modal, peraturan yang rumit, dan persaingan daripada perusahaan yang tidak mampan. Kerjasama dengan perniagaan dan pihak berkuasa yang mantap boleh menyelesaikan masalah ini. Misi yang berbeza,*

*hubungan yang kukuh, keterbukaan, perkongsian dan pemasaran yang cekap adalah kriteria kejayaan yang penting. Pengguna memainkan peranan penting dalam membantu perniagaan ini dengan membeli barangan yang mampan, meningkatkan kesedaran dan mendorong perubahan. Laporan itu menyerlahkan potensi perusahaan sosial untuk menggerakkan pertanian ke arah kemampanan dan membuat cadangan untuk penambahbaikan. Ia menyiasat bagaimana perusahaan sosial mempengaruhi beberapa aspek pertanian mampan, termasuk pemerkasaan komuniti, pemeliharaan alam sekitar dan mengurangkan perubahan iklim. Untuk mencapai masa depan yang lebih mampan, pihak berkepentingan mesti terus menyokong perusahaan sosial, yang penting untuk memajukan kemampanan dalam pertanian. Akhir sekali, dapatan saya dalam penyelidikan ini ialah perusahaan sosial boleh memainkan peranan penting dalam menggalakkan kemampanan dalam pengurusan pertanian, cabaran yang dihadapi oleh perusahaan sosial dalam sektor pertanian, jenis kerjasama oleh perusahaan sosial, dan faktor-faktor kepada kejayaan kerjasama.*

*Kata kunci – Pengurusan pertanian, Cabaran alam sekitar, Pengurusan perusahaan sosial, Pertanian lestari*

## INTRODUCTION

Sustainable development's economic, social, and environmental components are most frequently examined [Nowak, A., & Kasztelan, A. (2022)]. Agriculture frequently employs sustainability. Multiple consequences come with sustainable agriculture [Thompson, B. (2007)]. The effects of sustainable agriculture on the environment are frequently researched. These studies frequently conflict with economic viability and the conservation of natural resources or call for increased resource efficiency. Although they often concentrate on fair production and trade, such as fair farmer and worker remuneration and transparent trading conditions, social certifications for agricultural products are expanding. Due to social science criticism of its marginalization over the past ten years, the social component has been progressively incorporated into sustainability concepts and assessments. This advancement has yet to result in a comprehensive knowledge of the social component, as different authors have noted [Eizenberg, E., & Jabareen, Y. (2017)].

In recent decades, the challenges of agriculture have been exacerbated by environmental issues, population growth, and limited resources [Prävālie, R. (2016)]. The aforementioned factors contributed to the emergence of the problem. Consequently, the significance of employing ecologically sustainable agricultural practices that prioritise food safety for both current and future generations, while simultaneously protecting global ecosystems, has escalated. Traditional farming practises are characterised by their high resource consumption, which leads to soil degradation, water pollution, and deforestation. Social enterprises have played a significant role in the advancement of

sustainable agricultural practises to address these challenges. Social enterprises inherently place a higher emphasis on environmental and social objectives in comparison to financial considerations. Their primary emphasis is on supporting farmers who are at a disadvantage, communities that have been marginalised, and the conservation of natural resources.

Thus, this paper investigates the potential impact of social enterprises on the agricultural sector and global welfare. The primary focus will be on comprehending the critical agricultural challenges and sustainable practises of these enterprises.

## RESEARCH SIGNIFICANCE

Addressing the global concerns of food security, climate change, and environmental degradation requires sustainability in agricultural management. The search for sustainable agriculture techniques has seen the emergence of social enterprises as significant participants. The practice of producing food, fiber, and other agricultural products to meet the needs of the current generation while assuring that future generations will be able to do the same is known as sustainability in agriculture management [Latruffe, L., et al. (2016)]. The process of arranging, planning, and supervising numerous agricultural production-related tasks is called agriculture management. It entails making calculated choices to maximize available resources, boost output, and guarantee sustainable practices in farming and related endeavors. Maximizing crop yields, cutting costs, and fostering long-term environmental and economic sustainability in the agricultural sector all depend on effective farm management. Sustainable agriculture practices are ways of farming that aim to

increase output while reducing harmful effects on the environment, fostering social and economic fairness, and assuring long-term viability.

Environmental sustainability in agriculture refers to methods to reduce adverse environmental effects, protect natural resources, and advance ecosystem health [Dantsis, T., Douma, C., Giourga, C., Loumou, A., & Polychronaki, E. A. (2010)]. Important ideas include protecting biodiversity, conserving water, reducing chemical use, and preventing climate change. It mainly deals with protecting ecosystems, preserving soil fertility, and avoiding the effects of pollution and climate change, depending heavily on ensuring environmental sustainability in agriculture.

AgroTech Solutions, a social enterprise based in Kenya, actively advocates for the adoption of precision farming techniques through the utilisation of advanced technologies. According to [Ahmed, M. I. (2021)], the establishment of the company took place in 2015 to assist small-scale farmers in addressing challenges related to weather conditions, limited resources, and market dynamics. AgroTech Solutions provides farmers with real-time data through the utilisation of satellite imaging, soil sensors, and weather forecasts. The implementation of data-driven approaches for water and fertiliser optimisation has been shown to effectively mitigate waste and minimise the environmental impact associated with agricultural practices. The mobile applications developed by the company facilitate farmers in accessing market data, engaging with potential buyers, and receiving tailored agricultural guidance. Farmers have the potential to enhance their decision-making abilities and attain more favourable prices through the reduction of the knowledge gap.

The first impact of sustaining agriculture is environmental protection. Social enterprises have demonstrated a dedication to sustainable agriculture methods that emphasize environmental protection [Moudr, J. (2018)]. Secondly, it is involved in the empowerment of smallholder farmers and make it possible for farmers to better their standard of living and escape the cycle of poverty [9]. Thirdly, the promotion of biodiversity. Social businesses frequently assist in the growing of a variety of crops and native varieties to promote biodiversity conservation. It promotes innovative technology: Social entrepreneurs are leading the way in promoting and adopting cutting-edge agricultural technology [Bansal, S., Garg, I., & Sharma, G. D. (2019)] by utilizing innovations including data-driven decision-making tools, IoT-based monitoring systems, and precision farming, all of which optimize resource use and reduce waste [Alter, K. (2007)]. Finally, it promotes community development.

Social enterprises frequently collaborate closely with neighborhood groups to generate a sense of ownership and community growth. They frequently work on initiatives to improve the community's infrastructure, educational programs, and access to healthcare, all of which positively affect the neighborhood's general well-being.

## METHODOLOGY

The research uses primary data which using the mix method between survey and interview also secondary data to gather relevant information and analyze the effectiveness of social enterprises in achieving sustainable agricultural outcomes.

The primary data using surveys and questionnaires were administered to social entrepreneurs working in the agriculture sector. A total of 90 respondents' data were collected using the snowball effect which selected respondents are from executives, employees, and stakeholders related to the agriculture sector. A structured questionnaire was developed to assess the extent of sustainable practices adopted by social enterprises in agriculture management. A semi-structured interview was conducted to help strengthen the data with 6 selected key stakeholders to gather in-depth insights into the impact of social enterprises on sustainability. Participants were informed, and their consent was obtained from the participants involved in the survey and interviews.

The collected data was analyzed using SPSS. From the 90 respondents and 6 interviewees, 96 people were chosen as a sample. All questionnaires were filled out completely and collected, also with the interview's responses.

Meanwhile, the secondary data involved relevant literature, reports, and publications on sustainable agriculture and the role of social enterprises reviewed.

## RESULTS AND DISCUSSION

Social enterprises could play a significant role in promoting sustainability in agriculture management.

The research findings indicated that Social enterprises could play a significant role in promoting sustainability in agriculture management. Most participants indicated that they often address social, environmental, and economic challenges by integrating sustainable practices into their business models. These enterprises may prioritize fair wages for farmers, environmentally

friendly production methods (31.3%), reducing waste (19%), supporting local communities (42.7%), and promoting biodiversity (4.1%). Their mission-driven approach can catalyze positive change in the agriculture sector (2.1%). The participants listed social enterprises' different roles in promoting sustainability in agriculture management.

When queried about instances of social enterprises that have made noteworthy contributions to sustainable agriculture, the respondents enumerated Fair Trade USA as an example. Fair Trade USA is an organisation that advocates for equitable pricing and sustainable methodologies in the production of agricultural goods, thereby benefiting farmers and labourers in developing nations. This response was provided by 38.5% of the participants. Meantime, Alter Eco collaborates with small-scale farmers in the production of organic and fair trade food items, including chocolate, coffee, and rice, accounting for 51% of their product range. The Rainforest Foundation is an organisation that places its emphasis on the preservation of rainforests, the advancement of sustainable livelihoods for indigenous communities, and the promotion of sustainable land-use practises, accounting for 6.3% of its overall efforts.

#### Challenges faced by social enterprises in the agriculture sector.

The research findings established that some key challenges faced by social enterprises in the agriculture sector include:

- i. Access to capital and funding for scaling up operations (51%),
- ii. navigating complex regulatory environments, and compliance requirements (6.3%),
- iii. competing with conventional, non-sustainable agriculture businesses that may offer lower-priced products (38.5%),
- iv. building consumer awareness and demand for sustainable products (2.1%), and
- v. balancing social and environmental objectives with financial sustainability (2.1%).
- vi. its overall efforts.

#### Types of Collaboration by Social Enterprise

The results also establish that social enterprises can collaborate with traditional agriculture businesses and government agencies by:

- i. Forming partnerships to share knowledge, resources, and best practices,
- ii. participating in multi-stakeholder initiatives and public-private partnerships focused on sustainability,
- iii. engaging in dialogue with government agencies to advocate for supportive policies and regulations, and
- iv. encouraging supply chain transparency and traceability to promote sustainable practices.

#### Factors to Successful Collaboration

There are several factors have been identified that can contribute to the success of social enterprises in sustainable agriculture:

- i. A clear and compelling mission focused on sustainability and social impact,
- ii. building solid relationships with farmers and local communities,
- iii. transparency and authenticity in their sustainable practices,
- iv. collaborative partnerships with like-minded organizations and businesses, and
- v. effective marketing and storytelling to educate consumers about their mission and products.

Besides, it is also found that from the perspective of customers, the support to improve the effectiveness of collaboration between social enterprises in agriculture is strongly suggested. These include:

- i. Choosing to buy products from social enterprises that prioritize sustainability,
- ii. spreading awareness about social enterprises and their missions through word-of-mouth and social media,
- iii. participating in community-supported agriculture (CSA) programs that directly support local farmers and social enterprises, and
- iv. advocating for sustainable agriculture practices and policies through consumer activism.

Most respondents believe that social enterprises have the potential to make a significant impact in creating a better world through sustainable agriculture management. Further research establishes that the potential is that by prioritizing social and environmental goals, these enterprises can drive positive change in the agriculture sector, promote fair labor practices, reduce environmental impacts, and support the livelihoods of local communities. Their mission-driven approach can inspire and influence other businesses and consumers

to adopt more sustainable practices. The majority of participants also aware of the certifications and labels associated with sustainable agricultural practices. These include organic, fair trade, and Rainforest Alliance.

Some improvements and initiatives to enhance the role of social enterprises in sustainable agriculture include:

- i. Increased access to funding and financial support for social enterprises focused on sustainability,
- ii. government incentives and policies that encourage businesses to adopt sustainable practices,
- iii. enhanced consumer education and awareness about the positive impact of supporting social enterprises, and
- iv. collaborative efforts between social enterprises, traditional agriculture businesses, and governments to develop sustainable supply and value chains.

These findings also establish different Impacts of Social Enterprises on Sustainable Agriculture. Some of the critical impacts include environmental Conservation, Climate Change Mitigation, Conservation of Resources, empowering Farmers and Communities, Promoting Fair Labor Practices, Enhanced Food Security, and Biodiversity Protection.

## DISCUSSIONS

The research findings provide strong evidence that social enterprises play a vital role in the promotion of sustainability in agricultural management. The assertion is substantiated by the research conducted by [You, T.-L., & Wang, J.-H. (2019)], which demonstrates the significant contribution of social enterprises in advancing sustainability within the realm of agricultural management. The survey participants acknowledged that these enterprises demonstrate a prioritisation of addressing social, environmental, and economic challenges through the integration of sustainable practices into their business models. The primary areas of emphasis include advocating for equitable remuneration for farmers, employing environmentally sustainable production techniques, minimising waste generation, fostering community development, and safeguarding biodiversity. The adoption of a mission-driven approach serves as a catalyst for promoting positive change within the agriculture sector. [Defourny, J., & Kim, S. (2011)] assert that enterprises demonstrate a preference for addressing societal, environmental, and economic

concerns by integrating sustainable business practises into their operational frameworks. The focal points of their approach include the promotion of equitable compensation for farmers, the adoption of environmentally sustainable production methods, the reduction of waste generation, the provision of assistance to local communities, and the safeguarding of biological diversity. The participants provided examples of social enterprises, namely Fair Trade USA, Alter Eco, and The Rainforest Foundation, which serve as illustrations of the substantial contributions made by such organisations in the realm of sustainable agriculture. The typologies of social enterprises have been established through research conducted by [Child, C. (2016)]. These enterprises have established a precedent for others to emulate through their promotion of equitable pricing, organic farming, and sustainable land-use practises. Nevertheless, this paper also sheds light on various obstacles encountered by social enterprises operating in the agricultural sector. One of the primary challenges faced by businesses pertains to securing capital and funding to expand their operations. Additionally, they encounter difficulties in effectively navigating intricate regulatory frameworks and competing against non-sustainable enterprises that offer products at lower prices. Furthermore, the task of cultivating consumer consciousness and fostering a desire for environmentally-friendly products, all the while ensuring economic viability, presents a noteworthy obstacle. Social enterprises operating in the agricultural sector encounter a unique set of challenges that are distinct from those faced by enterprises in other sectors, owing to the intricate and multifaceted nature of both agriculture and social entrepreneurship [Chell, E., Nicolopoulou, K., & Karataş-Özkan, M. (2010)]. Social enterprises possess the capacity to collaborate with traditional agricultural enterprises and governmental institutions to identify resolutions for these challenges. Organisations can establish sustainable practises and advocate for policies and regulations that are conducive to sustainability through the establishment of partnerships, active involvement in multi-stakeholder initiatives, engaging in dialogues with governmental bodies, and promoting transparency within their supply chains [Eggers, W. D., & Macmillan, P. (2013)]. Multiple elements play a role in the achievement of social enterprises in the realm of sustainable agriculture. These encompass a distinct and persuasive mission centred around sustainability, robust connections with farmers and local communities, transparent and genuine sustainable practises, cooperative partnerships, and proficient marketing and storytelling techniques to enlighten consumers about their mission and products

[London, M., & Morfopoulos, R. G. (2009)].

The significance of consumers in providing support to social enterprises in the agricultural sector is of paramount importance [Pal, R., & Altay, N. (2019)]. Consumers can actively contribute to the promotion of sustainable agriculture management by engaging in various strategies. These include selecting products from enterprises that prioritise sustainability, disseminating awareness through word-of-mouth and social media platforms, participating in community-supported agriculture programmes, and advocating for sustainable practises. Through these actions, consumers play a crucial role in fostering a more sustainable world.

### CONCLUSION

As a conclusion, the empirical evidence indicates that social enterprises possess the capacity to generate a substantial and favourable influence on the management of sustainable agriculture. These enterprises have the potential to facilitate beneficial transformations within the agriculture sector through the prioritisation of social and environmental objectives, the promotion of equitable labour practises, the mitigation of environmental footprints, and the provision of support for the livelihoods of local communities. Additionally, their approach driven by a clear mission has the potential to serve as a source of inspiration and influence for other businesses and consumers, encouraging them to embrace and implement more sustainable practises. The participants of the survey demonstrated a heightened awareness of sustainability concerns, as evidenced by their recognition of certifications and labels linked to sustainable agricultural practises, including organic, fair trade, and Rainforest Alliance. To bolster the involvement of social enterprises in the realm of sustainable agriculture, several proposals have been put forth. These include augmenting the availability of financial resources, providing governmental incentives for the adoption of sustainable practises, improving consumer awareness and education, and fostering collaborative endeavours aimed at establishing sustainable supply chains. The effects of social enterprises on sustainable agriculture are multifaceted and extensive, encompassing a range of outcomes such as environmental preservation, mitigation of climate change, conservation of resources, empowerment of farmers and communities, promotion of equitable labour practises, improvement of food security, and safeguarding of biodiversity. The research underscores the significance of social enterprises in promoting sustainability in agricultural management and

underscores the necessity for ongoing backing from consumers, businesses, and policymakers to achieve a more sustainable and fair agricultural future.

### ACKNOWLEDGEMENTS

The authors would like to express sincere gratitude and appreciation to all who contributed, especially the principal, fellow, Student Leadership & Development Committee (JKPS), Student Residential (Inasis) of Off-Campus, and Universiti Utara Malaysia.

### REFERENCES

- Ahmed, M. I. (2021). The role of technology in small agricultural projects. *International Journal of Modern Agriculture and Environment*, 1(1), 1–21.
- Alter, K. (2007). Social enterprise typology. *Virtue Ventures LLC*, 12(1), 1–124.
- Bansal, S., Garg, I., & Sharma, G. D. (2019). Social entrepreneurship as a path for social change and driver of sustainable development: A systematic review and research agenda. *Sustainability*, 11(4), 1091.
- Chell, E., Nicolopoulou, K., & Karataş-Özkan, M. (2010). Social entrepreneurship and enterprise: International and innovation perspectives. *Entrepreneurship & Regional Development*, 22(6), 485–493.
- Child, C. (2016). Tip of the iceberg: The nonprofit underpinnings of for-profit social enterprise. *Nonprofit and Voluntary Sector Quarterly*, 45(2), 217–237.
- Defourny, J., & Kim, S. (2011). Emerging models of social enterprise in Eastern Asia: A cross-country analysis. *Social Enterprise Journal*, 7(1), 86–111.
- Dantsis, T., Douma, C., Giourga, C., Loumou, A., & Polychronaki, E. A. (2010). A methodological approach to assess and compare the sustainability level of agricultural plant production systems. *Ecological Indicators*, 10(2), 256–263.
- Eizenberg, E., & Jabareen, Y. (2017). Social sustainability: A new conceptual framework. *Sustainability*, 9(1), 68.
- Eggers, W. D., & Macmillan, P. (2013). *The solution revolution: How business, government, and social enterprises are teaming up to solve society's toughest problems*. Harvard Business Press.
- Latruffe, L., et al. (2016). Measurement of sustainability in agriculture: A review of indicators. *Studies in Agricultural Economics*, 118(3), 123–130.
- London, M., & Morfopoulos, R. G. (2009). *Social entrepreneurship: How to start successful corporate social responsibility and community-based initiatives for advocacy and change*. Routledge.

- Moudr, J. (2018). Social entrepreneurship in agriculture, a sustainable practice for social and economic cohesion in rural areas: The case of the Czech Republic. *European Countryside*, 10(3), 377–397.
- Nowak, A., & Kasztelan, A. (2022). Economic competitiveness vs. green competitiveness of agriculture in the European Union countries. *Oeconomia Copernicana*, 13(2), 379–405.
- Pal, R., & Altay, N. (2019). Identifying key success factors for social enterprises serving base-of-pyramid markets through analysis of value chain complexities. *Journal of Business Logistics*, 40(2), 161–179.
- Práválie, R. (2016). Drylands extent and environmental issues. A global approach. *Earth-Science Reviews*, 161, 259–278.
- Thompson, B. (2007). Effect sizes, confidence intervals, and confidence intervals for effect sizes. *Psychology in the Schools*, 44(5), 423–432.
- You, T.-L., & Wang, J.-H. (2019). Factors affecting social entrepreneurship intentions among agricultural university students in Taiwan. *International Food and Agribusiness Management Review*, 22(1), 107–118.

Muhammad Aminuddin \*  
 School of Economics, Finance, Banking,  
 Universiti Utara Malaysia,  
 06010 Sintok, Kedah, Malaysia

Muhammad Afiq Najmi & Amirul Ashraf  
 School of Computing,  
 Universiti Utara Malaysia,  
 06010 Sintok, Kedah, Malaysia

\*Corresponding author: amienuddin18@gmail.com