

**International Conference on Public Policy & Social Sciences 2023**

13-15 September 2023

Organized by the Faculty of Administrative Science & Policy Studies, Universiti Teknologi MARA (UiTM), Seremban Campus, Negeri Sembilan, Malaysia, and International University of Sarajevo (IUS), Bosnia and Herzegovina,

**Nexus between Solidarity Economy, Cooperative and Digital Economy at the Local Level: The case of Malaysia**

**Anidah Robani<sup>1\*</sup>, Amiruddin Ahamat<sup>2</sup>, Mohd Fauzi Kamarudin<sup>2</sup>, Siti Azwah Mohd Zubir<sup>4</sup>**

*\* Corresponding Author*

<sup>1</sup> Institute of Technology Management & Entrepreneurship, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia

<sup>2</sup> Faculty of Technology Management & Technopreneurship, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia

<sup>3</sup> Community Economy Division, Ministry of Rural & Regional Development, Putrajaya, Malaysia

[anidah@utem.edu.my](mailto:anidah@utem.edu.my); [amiruddin@utem.edu.my](mailto:amiruddin@utem.edu.my); [mohdfauzi@utem.edu.my](mailto:mohdfauzi@utem.edu.my); [azwah@rurallink.gov.my](mailto:azwah@rurallink.gov.my)  
Tel: +013-8660366

---

**Abstract**

This study used the Malaysian case as the empirical platform to articulate the issues of development at the local level mainly *Desa Lestari* (Sustainable Village) program of KPLB. The data were obtained mainly through focus group discussions and in-depth interviews with government officials and communities. This paper highlights conceptually and practically how the Solidarity Economy, the Cooperative, and Digitalization can be incorporated into a broader sustainability framework. This paper also demonstrates the potential and constraints of the *Desa Lestari* program. This paper ends with an examination of possible plans of action for a successful *Desa Lestari* program and local-level development in general.

**Keywords:** Solidarity Economy; Cooperative; Sustainable Development; Local Development

---

eISSN: 2398-4287 © 2024. The Authors. Published for AMER and cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), and cE-Bs (Centre for Environment-Behaviour Studies), College of Built Environment, Universiti Teknologi MARA, Malaysia.  
DOI: <https://doi.org/10.21834/e-bpj.v9iSI22.5803>

---

**1.0 Introduction**

The village economy in Malaysia faces numerous challenges, including limited access to resources, low economic activity, and a lack of sustainable development. These challenges hinder the growth and prosperity of rural communities, leading to economic disparities between rural and urban areas. In this context, there is a need to explore innovative approaches to rebuild and revitalize the village economy notably in the post-pandemic era. One potential solution is the implementation of synergy and collaboration between the solidarity economy, cooperatives, and the digital economy at the local level. The solidarity economy refers to an alternative economic model that emphasizes cooperation, social justice, and sustainability (Mance, 2017; ILO, 2021). Cooperatives, on the other hand, are organizations owned and democratically controlled by their members, who work together to meet their common economic, social, and cultural needs (Oktarina & Nababan, 2020; Robani et al., 2020; ILC.110/Resolution II). Smart villages and the transition of digital villages, however, are relatively new concepts. Likewise, the strategic roles and implications of the digital solidarity economy in the context of rebuilding the village economy in Malaysia remain relatively unexplored.

---

eISSN: 2398-4287 © 2024. The Authors. Published for AMER and cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), and cE-Bs (Centre for Environment-Behaviour Studies), College of Built Environment, Universiti Teknologi MARA, Malaysia.  
DOI: <https://doi.org/10.21834/e-bpj.v9iSI22.5803>

While the digital economy has the potential to enhance collaboration, inclusivity, and innovation within these alternative economic models, it also brings forth concerns regarding digital divides, unequal access to technology, and the concentration of power in digital platforms (Salemink, Strijker, & Bosworth, 2017; Beranič et al., 2019; van Gevelt et al., 2018; Rijswijk et al., 2021). Therefore, there is a need to examine the nexus between the solidarity economy, cooperatives, and the digital economy at the local level, in order to address the following research questions:

How can the digital economy be leveraged to strengthen the solidarity economy and cooperative initiatives at the local level?

What are the motivations and issues associated with the integration of the digital economy within the solidarity economy and cooperative frameworks? What strategies can be developed to ensure digital inclusivity and equitable access to technology within the context of the solidarity economy and cooperatives?

Specifically, this study attempts to examine the strategic potentials of solidarity economy, cooperative, and digital economy for sustainable local development, investigating the motivations and barriers to successful implementation of the nexus for sustainable local development. This paper also attempts to propose a plan of action for the successful implementation of the nexus for sustainable local development.

## 2.0 Literature Review

In recent years, the digital economy has gained prominence, driven by advancements in technology and the internet (Rory & Mike, 2021). It encompasses various online platforms, digital marketplaces, and technology-driven business models. The digital economy has the potential to transform traditional economic systems by providing new opportunities for collaboration, innovation, and inclusivity.

At the local level, the solidarity economy and cooperatives have long been recognized as effective means of empowering communities, fostering local development, and addressing socio-economic challenges (Salih, 2013; Utting, 2013; Santos & Cunha, 2018; Robani & Salih, 2018; Johnson, 2018). By promoting democratic decision-making, equitable distribution of resources, and sustainable practices, these models offer alternatives to profit-driven capitalism.

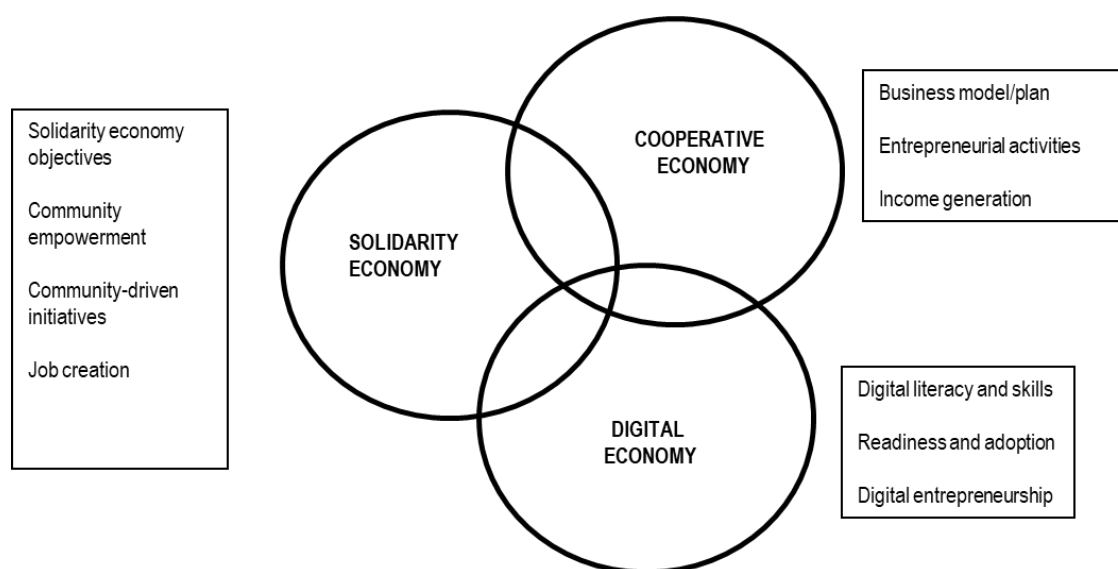


Figure 1: The Conceptual Framework: The Nexus  
(Source: Researcher's Compilation)

The advent of the digital economy has opened up new possibilities for the solidarity economy and cooperatives (Bauwens, M., & Kostakis, V. 2014; Balcerzak & Pietrzak, 2017; Johnson, 2018). Digital platforms provide avenues for decentralized organizing, facilitating communication, coordination, and resource sharing among cooperative enterprises and solidarity economy initiatives. Online marketplaces enable small-scale producers and artisans involved in the solidarity economy to reach wider consumer bases, bypassing traditional distribution channels.

Furthermore, the digital economy offers tools and technologies that can enhance the efficiency and effectiveness of cooperatives and solidarity economy initiatives (Tsyganov and Apalkova, 2016; Balcerzak and Pietrzak, 2017; Birchall, J. 2018; Rory & Mike, 2021; Gerli, Marco, & Whalley 2022; Malik, Gehlot, Akram, & Das, 2022). Collaborative platforms, project management tools, and online learning platforms enable cooperative members and solidarity economy actors to connect, share knowledge, and collaborate across geographical boundaries. Digital payment systems and crowdfunding platforms provide alternative financing options for cooperative ventures and solidarity economy projects.

However, it is important to note that the digital economy also presents challenges and risks. The digital divide, unequal access to technology, and the concentration of power in digital platforms can exacerbate existing inequalities within the solidarity economy and cooperatives. Ensuring digital inclusivity and addressing issues of data privacy, algorithmic bias, and platform governance is essential for a fair and equitable digital economy that supports the principles of the solidarity economy and cooperatives (European Commission, 2020; ILO, 2021; Tiwasing, Clark, & Gkartzios, 2022).

By reviewing the literature, this study asserts that there are advantages and drawbacks to be encountered while addressing the relationship between cooperatives, the internet economy, and the solidarity economy. To make sure that the digital economy keeps the sustainability, equity, and inclusivity that are essential to cooperative and solidarity economies, it is necessary to address these concerns in all of their facets. Addressing socioeconomic inequality at the village level requires giving top priority to initiatives that promote digital inclusion, empower local communities, and boost resilience. By doing this, we can make sure that the advantages of the digital economy are shared fairly and in line with the fundamental principles of cooperatives and solidarity economies.

### 3.0 Methodology

The research methodology employed to investigate the nexus between solidarity economy, cooperatives, and digitalization at the village level is rooted in a qualitative approach, with a specific focus on case study analysis and interviews as primary data collection tools. This methodological choice allows for an in-depth exploration of the complex interrelationships between these components within a specific context (Mohajan, 2018). The case study approach involves the in-depth examination of one or more villages, aiming to provide a comprehensive understanding of the interplay between solidarity economy, cooperative structures, and the integration of digital technologies. Through detailed observations and analysis, researchers can uncover contextual nuances and socio-economic dynamics unique to each village. Complementing the case study, interviews serve as a crucial data collection tool. Focus group interviews allow for in-depth exploration of participants' perspectives, experiences, and insights. They helped uncover the unique challenges, opportunities, and dynamics related to the integration of the digital economy within the solidarity economy and cooperatives in Malaysian villages. These interviews are typically semi-structured, allowing for open-ended questions and follow-up inquiries, ensuring a rich and nuanced dataset (Mann, S. 2016).

For this study, a qualitative research method using a case study of selected villages in Kelantan, Terengganu, Kedah, Perak, and Perlis. Case study research consists of a detailed investigation, often with empirical material collected over a period of time from a well-defined case to provide an analysis of the context and processes involved in the phenomenon (Rashid, 2019). During the profiling phase, the study selected 10 out of 101 villages under the KPLB Database of Desa Lestari program. The 10 villages are those with active cooperatives in the post-Covid-19 pandemic crisis. During the quantitative phase, a total of 30 participants were willing to participate in the focused group interviews from four major villages (Table 1). This method allows the researchers to explore the phenomenon under study by probing further during the interview sessions.

Table 1: Key Informants of Focus Group Interviews

No	Position of the Informant	Location of the Interview	No of Samples
1	Head of Village	Balairaya Desa Lestari Air Melintas Besar, Pulau Pinang	1
2	Chairman, Cooperative Desa Lestari		1
3	Village Committees cum Board of Directors, Cooperative Desa Lestari		5
4	Coordinator of Desa Lestari, RISDA Pulau Pinang		2
5	Head of Village	Cooperative Office of Desa Lestari Kampung Jelawang, Gua Musang, Kelantan	1
6	Chairman, Cooperative Desa Lestari		1
7	Village Committees cum Board of Directors, Cooperative Desa Lestari		7
8	Coordinator of Desa Lestari, KESEDAR Kelantan		1
9	Chairman, Cooperative Desa Lestari	Balairaya Desa Lestari Kampung Kayu Kelat, Terengganu	1
10	Village Committees cum Board of Directors, Cooperative Desa Lestari		6
11	Coordinator of Desa Lestari, RISDA Terengganu		1

The data analysis of interview data is a critical step in qualitative research, involving a systematic process of organizing, examining, and interpreting the information obtained through interviews with participants (Braun & Clarke (2019)). Initially, researchers transcribe the interviews verbatim, ensuring an accurate representation of participants' spoken words and non-verbal cues. Following transcription, thematic analysis is a widely used approach, wherein patterns, themes, and concepts that emerge from the data are identified and coded (Braun & Clarke, 2019). The qualitative data collected through interviews and case study analysis are then subjected to thematic analysis. This process involves identifying recurring patterns, themes, and concepts within the data, which are then organized and categorized to derive meaningful insights.

### 4.0 Findings

The study found three main themes in analyzing the motivation for successful nexus between solidarity economy, cooperative and digital economy in Malaysian villages;

- 1 ) government support in terms of grants, cooperative systems, infrastructure
- 2 ) social capital in terms of trust, solidarity, and cohesion
- 3 ) local leadership and role model

The majority of the participants agreed that the government through the Ministry of Rural Development had done its best to support and assistance for village development in terms of the provision of grants, subsidies, and infrastructure. The cooperative system under the supervision and monitoring of the Malaysian Cooperative Commission (SKM) also contributed efficiently to this matter. In addition, the appointment of government agencies such as RISDA, FELCRA, KESEDAR, and KEDA as co-ordinators of Desa Lestari program made the execution process more smooth and effective. The participants also point out that there is an urgent need for them to learn more about digital entrepreneurship so that they will be better equipped to cope with the complex digital economy and optimize it for leveraging solidarity economy and cooperation.

Successful village economies and cooperatives require dynamic and supportive heads of villages who are wise in decision-making and have clear missions. This is because the head of the village will be a point of reference in many cases related to village matters. With a clear vision, the heads of village may connect their villages to the opportunities in the outside world for the betterment of their villages. On the other hand, role models are needed to guide and coach the villagers especially the youth to pursue the village agenda. However, it is also expected that the youth will reach out to senior and experienced folks to share their knowledge and skills in digital technology. This may trigger the development of a culture of knowledge-sharing in the villages.

The majority of the respondents believed that it was only through productive social capital that they could develop their villages. The respondents also expressed their thankfulness to the government mainly through its ministry which had invested and supported uncompromisingly for their village growth and success. Thus, this study claims that positive values like brotherhood, caring, and cooperation had been conceptualized as common shared values among village members and which they felt should be further sustained and strengthened in the future. According to them, the positive values should be further developed through the neighborhood system, youth development, and entrepreneurial programs organized by KKDW, private agencies, and NGOs.

On the other hand, this study reveals several important issues that may hinder the successful nexus between solidarity economy, cooperative and digital economy in Malaysian villages;

- 1) technology culture and infrastructure
- 2) human capital mainly the IT-savvy generation

From the analysis of qualitative data, this study found that technology culture and adoption are still moderate and low in certain villages. This may hinder the development of a successful nexus at the local level. The majority of the respondents said they are lacking in terms of digital skills for leveraging their household business, particularly in digital marketing. According to the study, most of them are only competent in basic online marketing via social media platforms.

They also reported the most critical issue in their villages is the shortage of youth who can be trusted to succeed in the village agenda. Most of the village positions were occupied by the same old folks, which led to the overlapping of posts in some villages. The cooperatives also faced the same issue since youth were not interested in such positions, which they claimed, are non-profitable.

A significant issue that emerged from this study is the lack of external collaboration between villages and other stakeholders in particular the university to provide a technical workforce for the villages. It can also support in terms of providing training for village youth through knowledge transfer and technology transfer.

Apart from digital competence and youth issues, the study also found that the village cooperatives are less competent in developing an innovative, productive, and sustainable business model canvassing. The relevant stakeholders must consider this issue seriously to ensure that the villages may achieve their self-sufficiency in the economy soon without prolonged dependency on government grants and subsidies.

## 5.0 Recommendations: Plan of Action

Developing an action plan at the local level involving local authorities, village leaders, and communities can help facilitate the integration of the digital economy within the solidarity economy and cooperatives in Malaysian villages. Among the suggested action plans:

Assessing a comprehensive digital readiness of the village, including access to digital infrastructure, internet connectivity, and digital skills of community members. Identify the specific needs and challenges faced by the village in embracing the digital economy.

Establish a local digital task force comprising representatives from local authorities, village leaders, community members, and relevant stakeholders. This task force will drive the implementation of the action plan, coordinate activities, and monitor progress.

Develop Digital Skills Training Programs: Design and implement digital skills training programs tailored to the needs of the village. Collaborate with local educational institutions, NGOs, and government agencies to provide training on digital literacy, online marketing, e-commerce, and financial management.

The establishment of digital cooperative platforms may be instrumental in enabling collaboration, knowledge sharing, and resource pooling among cooperative enterprises in the village. This can involve partnering with local technology providers or leveraging existing cooperative networks to develop user-friendly platforms.

Work with local authorities and telecommunications providers to improve internet connectivity and access to digital infrastructure in the village. Explore options for community-based internet initiatives, such as community networks or shared connectivity schemes.

Organizing training sessions and workshops to assist cooperative enterprises in leveraging digital marketing strategies and online platforms to reach broader markets. Explore partnerships with e-commerce platforms and promote local products and services through online marketplaces.

Engagement with relevant government agencies and policymakers to advocate for policies and regulations may promote the integration of the digital economy within the solidarity economy and cooperatives. Provide input on policies related to data privacy, platform governance, digital infrastructure development, and financial inclusion.

Significantly, implementing this action plan will require collaboration, coordination, and active engagement from local authorities, village leaders, and community members. By working together, the village can harness the potential of the digital economy to strengthen the solidarity economy and cooperative initiatives, promote inclusive economic development, and improve the well-being of the community.

## 6.0 Conclusion

In conclusion, the nexus between the solidarity economy, cooperatives, and the digital economy at the local level represents a dynamic and evolving relationship. Undeniably, the digital economy can amplify the impact and reach of the solidarity economy and cooperatives, facilitating collaboration, innovation, and inclusivity. The integration of the digital economy within the solidarity economy and cooperatives can have several practical, theoretical, and policy implications;

**Practical Implications:** The study highlights practical implications for local authorities, village leaders, and communities. It emphasizes the importance of adopting digital technologies, fostering digital literacy, and promoting digital entrepreneurship within the cooperative sector. This can lead to improved efficiency, market access, and community engagement.

**Theoretical Implications:** The research contributes to theoretical debates and literature surrounding the solidarity economy, cooperatives, and the digital economy. It demonstrates the evolving nature of these concepts and their interconnectedness.

**Policy Implications:** The findings of this study have important policy implications. Policymakers should recognize the potential of the digital economy to drive the growth and sustainability of cooperatives and the solidarity economy. Policies should be developed to support digital infrastructure, digital skills development, and favorable regulatory frameworks. Policies should also focus on promoting digital literacy and skills development among members of cooperatives and local communities. Training programs and capacity-building initiatives can empower individuals to effectively utilize digital tools and platforms for business management, marketing, and financial transactions, thereby enhancing their economic opportunities and resilience in the digital age.

In terms of the limitations, the findings and implications of the study may be specific to the context of Malaysia and may not be directly applicable to other regions or countries with different socio-economic and cultural landscapes. The study might also lack generalizability beyond the specific case examined. The research has made a valuable contribution to the understanding of the nexus between the solidarity economy, cooperatives, and the digital economy in Malaysia. In terms of retrospective, this study's practical, theoretical, and policy implications provide a foundation for future research and policymaking endeavors in this area. Moving forward, continued attention to methodological rigor, sustainability, and ethical considerations will be essential for maximizing the impact and relevance of research findings.

In terms of new directions for further research, it is recommended to conduct longitudinal studies to track the long-term effects of integrating digital technologies within cooperative structures and solidarity economy initiatives. It may also explore cross-country comparisons to examine how the nexus manifests in different socio-economic and cultural contexts. Employing mixed-methods approaches that combine quantitative indicators with qualitative data can provide a comprehensive understanding of the multifaceted impacts of digital initiatives on local communities. Conducting policy analyses may also be instrumental in assessing the alignment between policy objectives and grassroots initiatives, as well as identifying barriers and facilitators to policy implementation at the local level.

In conclusion, this study has shed light on the nexus between the solidarity economy, cooperatives, and the potential of the digital economy. It has demonstrated the transformative potential of integrating the digital economy within the cooperative sector, leading to enhanced community development, economic empowerment, and sustainable livelihoods.

## Acknowledgments

The authors record special appreciation to the Malaysian Ministry of Higher Education which funded this study under the FRGS scheme grant no FRGS/2021/IPTK/F00494. Special thankfulness and indebtedness go to Division of Community Economy, Malaysian Ministry of Rural & Regional Development (KKDW) for their support and cooperation throughout the fieldwork in *Desa Lestari*. Last but not least we would like to thank the Centre of Research and Innovation Management (CRIM), Universiti Teknikal Malaysia Melaka for their kind support in the completion of this study

## Paper Contribution to Related Field of Study

The study examines the nexus between the solidarity economy, cooperatives, and the digital economy at the local level, particularly in rural or community settings. Thus, it may contribute to Development Studies notably rural or community planning and development as well as the Sociology of Development. The study also contributes to the localization of Sustainable Development Goals (SDGs) by examining how concepts such as solidarity economy and cooperatives can be instrumental in achieving SDG targets at the local level.

## References

- Oktarina, Adelia, Nababan, Febrina Elia (2020). Strengthening Village Economy during Pandemic. *Advances in Social Science, Education and Humanities Research*, volume 510 in the *Proceedings of the 6th International Conference on Social and Political Sciences (ICOSAPS 2020)*, Atlantis Press, 495-500
- Balcerzak, P.A., Pietrzak, B.M. (2017). Digital Economy in Visegrad Countries. Multiple Criteria Decision Analysis at Regional Level in The Years 2012 and 2015. *Journal of Competitiveness*, 9(2), 5-18.
- Bauwens, M., & Kostakis, V. (2014). From the communism of capital to capital for the commons: Towards an open co-operativism. *TripleC: Communication, Capitalism & Critique*, 12(1), 356-361.
- Beranić, T., Zamuda, A., Brežočnik, L., Turkanović, T., Lentini, G., Poletti, F., ... Pichler, M. (2019). Facilitating the digital transformation of villages. 30th Central European Conference on Information and Intelligent Systems, 281–288.
- Birchall, J. (2018). Defining and Classifying Cooperatives in The Palgrave Handbook of Co-Production of Public Services and Outcomes Palgrave Macmillan. (pp. 21-41)
- Braun, Virginia & Clarke, Victoria (2019) Reflecting on reflexive thematic analysis, *Qualitative Research in Sport, Exercise and Health*, 11:4, 589-597, DOI: 10.1080/2159676X.2019.1628806
- European Commission. (2020). Digital Economy and Society Index (DESI). Retrieved from <https://ec.europa.eu/digital-single-market/en/desi>
- Gallardo, R. (2019). Bringing Communities into the Digital Age. *State and Local Government Review*, 51(4), 233–241. <https://doi.org/10.1177/0160323X20926696>
- Gallardo, R., Beaulieu, L. B., & Geideman, C. (2021). Digital inclusion and parity: Implications for community development. *Community Development*, 52(1), 4–21.
- Gerli, P., Marco, J. N., & Whalley, J. (2022). What makes a smart village smart? A review of the literature. *Transforming Government: People, Process and Policy*, 16(3), 292–304. <https://doi.org/10.1108/tg-07-2021-0126>
- ILO (2021). The UN Secretary General's Report on "Socially just transition towards Sustainable Development: the Role of Digital Technologies on Social Development and Well-being of All" for the upcoming Fifty-ninth session of the Commission for Social Development. [Accessed: 18 February 2021].
- ILC.110/Resolution II - Resolution concerning decent work and the social and solidarity economy, 10 June 2022
- Johnson, S. (2018). Cooperatives in the digital economy: Platforms, peer production, and governance. *Economic and Industrial Democracy*, 39(3), 475-495.
- Malik, P. K., Gehlot, A., Gehlot, A., Akram, S. V., & Das, P. K. (2022). Village 4.0: Digitalization of village with smart Internet of Things technologies. *Computers & Industrial Engineering*, 165, 107938. <https://doi.org/10.1016/j.cie.2022.107938>
- Mance, E. (2017). Solidarity Economy. In *Handbook of Research on Fair Trade* (pp. 421-440). Edward Elgar Publishing.
- Mann, S. (2016). Research Interviews: Modes and Types. In: *The Research Interview*. Palgrave Macmillan, London. [https://doi.org/10.1057/9781137353368\\_4](https://doi.org/10.1057/9781137353368_4)
- Mohajan, H.K., (2018). Qualitative research methodology in social sciences and related subjects. *Journal of economic development, environment and people*, 7(1), pp.23-48.
- Rijswijk, K., Klerkx, L., Bacco, M., Bartolini, F., Bulten, E., Debruyne, L., Brunori, G. (2021). Digital transformation of agriculture and rural areas: A socio-cyber-physical system framework to support responsabilisation. *Journal of Rural Studies*, 85(January), 79–90.
- Robani, A, Ahamat, A., Latief, H. & Pratiwi, A. (2020). Social Capital in Enhancing Community Economy: The Case of Muhammadiyah Boarding School (MBS) Sleman, Prambanan Yogyakarta. *Humanities and Social Sciences Reviews*, Vol. 8, No.2, March 2020, pp. 398-404
- Robani, A. & Salih, K. (2018). Positioning Islamic Gift Economy for Sustainable Development at the Local Level. *Humanities and Social Sciences Reviews*, Vol. 6, No.2, December 2018, pp. 111-120
- Santos, B. S., & Cunha, T. (2018). Solidarity economy and the commons: A perspective from below. In *The Handbook of the Solidarity Economy* (pp. 307-321). Edward Elgar Publishing.
- Salemink, K., Strijker, D., & Bosworth, G. (2017). Rural development in the digital age: A systematic literature review on unequal ICT availability, adoption, and use in rural areas. *Journal of Rural Studies*, 54, 360–371. <https://doi.org/10.1016/j.jrurstud.2015.09.001>
- Salih, K. (2013). Development and Inequalities: In Search of a New Economic Paradigm using the Malaysian case, The Ninth Ishak Shaari Lecture, IKMAS Universiti Kebangsaan Malaysia, November 23, 2013
- Tsyganov, S., & Apalkova, V. (2016). Digital Economy: A New Paradigm of Global Information Society. *Economic Review*, 45 (3).
- Tiwasing, P., Clark, B., & Gkartzios, M. (2022). How can rural businesses thrive in the digital economy? A UK perspective. *Heliyon*, 8(10), e10745. <https://doi.org/10.1016/j.heliyon.2022.e10745>
- Utting, Peter (2013). Social and Solidarity Economy: A Pathway to Socially Sustainable Development? UNRISD Conference "Potential and Limits of Social and Solidarity Economy". The conference took place on 6-8 May 2013 in collaboration with the International Labour Organization and the UN Non-Governmental Liaison Service.
- van Gevelt, T., Canales Holzeis, C., Fennell, S., Heap, B., Holmes, J., Hurley Depret, M., Safdar, M. T. (2018). Achieving universal energy access and rural development through smart villages. *Energy for Sustainable Development*, 43, 139–142. <https://doi.org/10.1016/j.esd.2018.01.005>