

Collective Digital and Technology Sharing in South-East Asian Countries: A Reviewed Literature Study

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ABSTRACT: This literature reviewed study aims to probe the collective digital and technology sharing among countries in Southeast Asian countries. Specifically, this proposed study seeks to assess factors fostering digital and technology sharing among countries in Southeast Asian countries, determine how digital and technology sharing among countries in Southeast Asian countries influence productivity and competitiveness, determine the barriers of digital and technology sharing affect productivity and competitiveness and propose an appropriate model that improves digital and technology sharing that can be used to guide research, policy making, training and practice.

The Karunakaran, Spence, and Reddy's (2013) model anchored to conduct this study. The population of this proposed study comprise of selected peer reviewed study. Purposive sampling technique used to select published articles on digital and technology sharing. Thematic analysis helped to develop different themes relating to the specific objectives of this study. The findings shows that there are several factors influencing digital and technology sharing among Southeast Asian countries; these are technological factors (32%, n=8), environmental factors (16%, n=4), social factors (8%, n=2), organizational factors (24%, n=6) and information communication technology and collaboration (20%, n=5).

The reviewed literature recommended that digital and technology sharing policy is crucial among Southeast Asian countries. The digital and technology sharing is using social media and maintains two functions: public relations and communications to the community of Southeast Asian countries. The social media have become a very vital tool for diplomacy among Southeast Asian countries.

KEYWORDS: Collective Digital and Technology Sharing, Factors Influencing Collective Digital and Technology Sharing, Challenges for Digital and Technology Sharing, Southeast Asian countries

1.0 INTRODUCTION

The collective digital and technology sharing in Southeast Asian countries have developed a keen interest to the academic world of researchers to influence innovativeness, productivity and competitiveness in international business. Globalization, quick technological developments, and a more diversified workforce have fundamentally changed industrial relations in the twenty-first century (Kumar and Saxena, 2025).

Collective digital and technology sharing developments include digital communication technologies, artificial intelligence and automation have revolutionized workplaces by lowering the need for man power in work places with certain skill sets and simultaneously generating new possibilities for those man power. Technological developments include digital communication technologies, artificial intelligence, and automation have revolutionized workplaces by lowering the need for human workers with certain skill sets and simultaneously generating new possibilities for those people (Kumar and Saxena, 2025).

The 21st century has witnessed a profound transformation in industrial relations, driven by the forces of digital globalization and rapid technological advancement. This has shaped the workforce diversity through collective digital and technology sharing. The digital globalization has interconnected economies and labour markets; it has widened the scope of reshaping employer-employee dynamics across borders. Modern technology in communication has no doubt helped to serve as a means of people and as a medium of interaction in the social world (Aondover et al., 2025).

1.1 Rationale / Motivation for the Research Project

The findings of this study provide a better understanding of salient issues pertaining to the collective digital and technology sharing. Lack of studies on collective digital and technology sharing that support collective innovation different countries have been ignored research area.

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The greater understanding of how collective digital and technology sharing to support the complex problems associated with productivity and competitiveness is the vital aspect in developing a nation (Jameel and Raewf, 2021) which the countries wish to solve society problems to further their interest in attaining true development.

Much more significantly for this study, the findings contribute to the body of knowledge during collective digital and technology sharing to make new products (Cooper, R. G., 2024) which are useful to the community. These new products are originated from collective digital and technologies sharing that are usually practical oriented. This study bridges the technological gap of digital divide among countries through application of advanced technology sharing (Wang et al, 2023). The large digital companies of Amazon, Facebook, Apple, Netflix and Google have received a large share of income produced a creative value creation process (Mazzucato, 2024). Borowiecki et al. (2021) affirm that, the increase of the application of technologies have enhanced the productivity by 3.5%. The findings of this study serves as the road map to improve productivity and competitiveness through collective digital and technology sharing to make new products. This is supported by Gaglio et al. (2022) who reveal that, the technology not only makes the firms more innovative, but also accelerates their competitiveness and productivity through usage of digital technology.

Additionally, the information generated could provide suggestions to overcome the challenges to collective digital and technology sharing when innovating new products collectively and share more advanced technology to improve productivity and competitiveness. Knowing challenges of collective digital and technology sharing helps information scientists and other stakeholders in the technology field to come up with theoretical and practical strategies to improve productivity and competitiveness of different nations. The findings of this study also contribute to guide research, policy making, training and practice of collective digital and technology sharing to countries of Southeast Asian countries. Thus, making new products using advanced technology, the creators of new products need to be well informed (Mulaydinov, 2024).

2.0 PROBLEM STATEMENT AND INITIAL RESEARCH QUESTIONS

The collective digital and technology sharing continue to be a prominent to facilitate the socio-economic transformation for developing countries for the companies to make new products (Marinez-Pelaez et al., 2023). However, lack of innovation and poor technologies in Southeast Asian countries cause low productivity and competitiveness for making new products (Alabdali, Pileggi and Cetindamar, 2023). Countries lack appropriate technologies for innovating new products when they need to further their interest. Also, lack of modern technology for assisting in Southeast Asian countries raise the issue of digital divide. Collective innovation and technology sharing in rural areas remains a paradox for assisting in productivity and competitiveness that receives less research attention, most studies concentrate in other part of the world only (Yao and Li, 2023). This project also intends to study how collective digital and technology sharing support the productivity and competitiveness in Southeast Asian countries. Specifically, the following research questions were explored:

- i) What factors foster collective digital and technology sharing among in Southeast Asian countries?
- ii) How collective digital and technology sharing influence productivity and competitiveness?
- iii) What are the barriers of collective digital and technology sharing that affects productivity and competitiveness?
- iv) What is a recommended model that improves collective digital and technology sharing that can be used to guide research, policy making, training and practice?

3.0 METHODOLOGY

3.1 Research Approach

This study employed descriptive qualitative research approaches. Qualitative research serves to develop rich and detailed understanding of phenomena for identification of new concepts, constructs or models that interpret reality (Thomas, 2021) and assigns in-depth meanings to the findings that are not possible through aggregated quantitative results (Kouamé and Langley, 2018). Moreover, the systematic literature review was applied by applying the inclusion criteria and exclusion criteria. Only research articles which were published in the peer reviewed journal and have the scopa index qualities were included in this study. However, during the searching process of the research articles to be included in this study; the research papers which were not on collective digital and technology sharing were not included in this study. Out of fifty seven (57) research articles, only twenty seven (27) articles were selected for this study.

3.2 Interpretive paradigm

Interpretive paradigm was applied to understand meanings associated to collective digital and technology sharing in striving to enact innovation, productivity and competitiveness to satiate in Southeast Asian countries. Due to the complexity of understanding different constructs of digital technology sharing that accelerates innovation, Karunakaran, Spence, and Reddy's (2013) model was anchored to conduct this study.

3.3 Study Area

Study will be conducted in Southeast Asian countries. The study areas are purposely selected due to their vibrant innovation activities and availabilities of digital technologies that support productivity and competitiveness. Study area selection relies on its suitability and accessibility for collecting information and relevant data from the field (Ndallu, 2020).

The countries in Southeast Asian are selected because they promote application of digital technology to make new products as the basis of innovation.

3.4 Study Population and Sampling Procedures

Purposive sampling will be conducted to purposive samples of articles published in peer reviewed journals on collective digital and technology sharing that will be randomly drawn during literature review. A purposive sample is one whose characteristics are relevant to the study (Andrade, 2021) and assists to comprehend the multiple dimensions of phenomenon (Creswell and Poth, 2018).

3.5 Data and Data Collection Techniques

This study used secondary data collection methods. Secondary data were collected by reviewing published information materials.

4.0 EXPECTED CONTRIBUTIONS TO KNOWLEDGE AND POLICY

Despite the novelty of collective digital and technology sharing that support productivity and competitiveness, the topic has received scant scholarly attention particularly in Southeast Asian countries particularly. Currently, there has been a keen interest to study on collective digital and technology sharing particularly in Southeast Asian countries. Few recent reviewed studies (Marinez-Pelaez et al, 2023; Mazzucato, 2024; Borowiecki et al., 2021) have shed scholarly light on the topic. It is novel to explore its nexus on the aspects of collective digital and technology sharing that contributes to the body of knowledge for creating brand loyalty and market share in the international business which is experiencing drastic changes in development of innovation. (Aithal, P.S., 2023).

Moreover, this study reveals the holistic approach by assessing how of collective digital and technology sharing among Southeast Asian countries that create linkages between productivity and competitiveness that encourage creativity and attract talents (Deloitte, 2022). The natures of Southeast Asian countries which are practical oriented in different industrial fields and have potential effects to citizens to encourage productivity and competitiveness (Grama-Vigouroux et al, 2022). The findings of Southeast Asian countries provide vital insights to policy makers and others stakeholders of technology field. This study provides recommendations to bridge the digital divide in rural VET institutions to make products. The hypothesized model also improves knowledge sharing during innovation that will act as a catalyst to accelerate productivity and competitiveness in making new products which are used to the community.

5.0 FINDINGS AND DISCUSSIONS

5.1 Factors foster collective digital and technology sharing

Table 1.1 shows the findings of this study that reveal factors foster collective digital and technology sharing:

Table 1.1 Factors Influence Digital and Technology Sharing

N=25			
SN	Factors Influence Digital and Technology Sharing	Frequency	Percentage (%)
1	Technology Factors	8	32
2	Environmental Factors	4	16
3	Social Factors	2	8
4	Organization Factors	6	24
5	Information Communication Technology and Collaboration	5	20
		25	100

(Source: Reviewed Literature, 2025)

The findings shows that there are several factors influencing digital and technology sharing among Southeast Asian countries; these are technological factors (32%, n=8), environmental factors (16%, n=4), social factors (8%, n=2), organizational factors (24%, n=6) and information communication technology and collaboration (20%, n=5).

The digital tools and platforms should be easily accessible and user-friendly to encourage adoption and participation among Southeast Asian countries. The integration of different digital platforms and technologies are vital for efficient information exchange and collaboration to ensure innovativeness and production of new products among Southeast Asian countries.

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Moreover, keeping technologies up-to-date ensures their relevance and reliability among sister countries who are willing to share technologies in Southeast Asian countries.

The digital technological platforms can facilitate the creation of social networks and communities that enable individuals to connect, share knowledge and collaborate among different natives across countries allocated in Southeast Asian countries. The mutual trust among individuals and teams are crucial for open communication and knowledge exchange especially when natives doing international business in Southeast Asian countries as it involve exchange of new products with transactions of different currencies. Globalization refers to the increasing integration of economies, societies, and cultures through international trade, investment, information technology, and the movement of people (Kumar and Saxena, 2025).

The environmental factors that influence availability of certain new products and raw materials for international business influencing digital and technology sharing in Southeast Asian countries.

The culture that embraces openness, innovation and collaboration are vital for fostering a positive attitude towards digital technologies when countries do international business that support digital and technology sharing. Moreover, the strong leadership support for digital initiatives and knowledge sharing is crucial for driving adoption and creating a positive environment for collective digital and technology sharing in Southeast Asian countries.

Information communication technology (ICT) in Southeast Asian countries require to provide the varieties of communication channels, including online forums and collaborative tools that enhance collective digital and technology sharing in Southeast Asian countries. Other social media companies like Phoenixia in the Czech Republic collaborate with the military social media to create speech analysis tools (Yar-Adua, Msughter, and Garba, 2023).

5.2 How Collective Digital and Technology sharing influence Productivity and Competitiveness

Collective digital and technology sharing has replaced skilled man power with artificial intelligence (AI) in Southeast countries. Technology, another key driver of change, has revolutionized the nature of work itself. The rise of digital technologies, automation, artificial intelligence, and robotics has significantly altered production processes, job roles, and skill requirements (Kumar and Saxena, 2025).

Similar study findings from Kumar and Saxena (2025) reveal that, technology especially automation and digital platforms has redefined the workplace that demanding new skills and altering traditional employment structures. It has enhanced productivity but also led to job displacement and the weakening of collective bargaining in many sectors.

ICTs are the new communication channels for citizen empowerment and greater democratic deliberation of civilised society (Yar-Adua et al., 2023). Academic literature by Bimber in Namadi and Aondover (2020) shows that digital media is playing an important role in the processes and outcome of conducting elections.

5.3 The Barriers of Collective Digital and Technology Sharing in Southeast Asian Countries

The barriers of collective digital and technology sharing that affects productivity and competitiveness:

1. The replacement of manpower as the effect of digital and technology sharing is the common feature in Southeast Asian countries.
2. The findings suggest that digital space has been instrumental in harassing dissent or jailing opposition members in countries like the Philippines and Vietnam (Alami et al., 2022)..
3. The reality is that the Philippines, despite the advancement in information and communication technology infrastructure, is not fully digital (Alami et al., 2022).

5.4 Recommendations

1. Governments in Southeast Asian countries need play an active role in creating policies that protect labor rights while promoting innovation and competitiveness during digital and technology sharing (Kumar and Saxena, 2025).
2. The collective digital and technology sharing is crucial for influencing productivity and competitiveness.
3. There are several factors that must be considered for influencing digital and technology sharing among Southeast Asian countries; these are technological factors, environmental factors, social factors, organizational factors and information communication technology and collaboration.
4. There is a need to have the hypothesized model that direct the collective digital and technology sharing among Southeast Asian countries as illustrated in *Figure 1.1*.

1.1 Hypothesized Model of Collective Digital and Technology Sharing

Figure 1.1: Hypothesized Model of Collective Digital and Technology

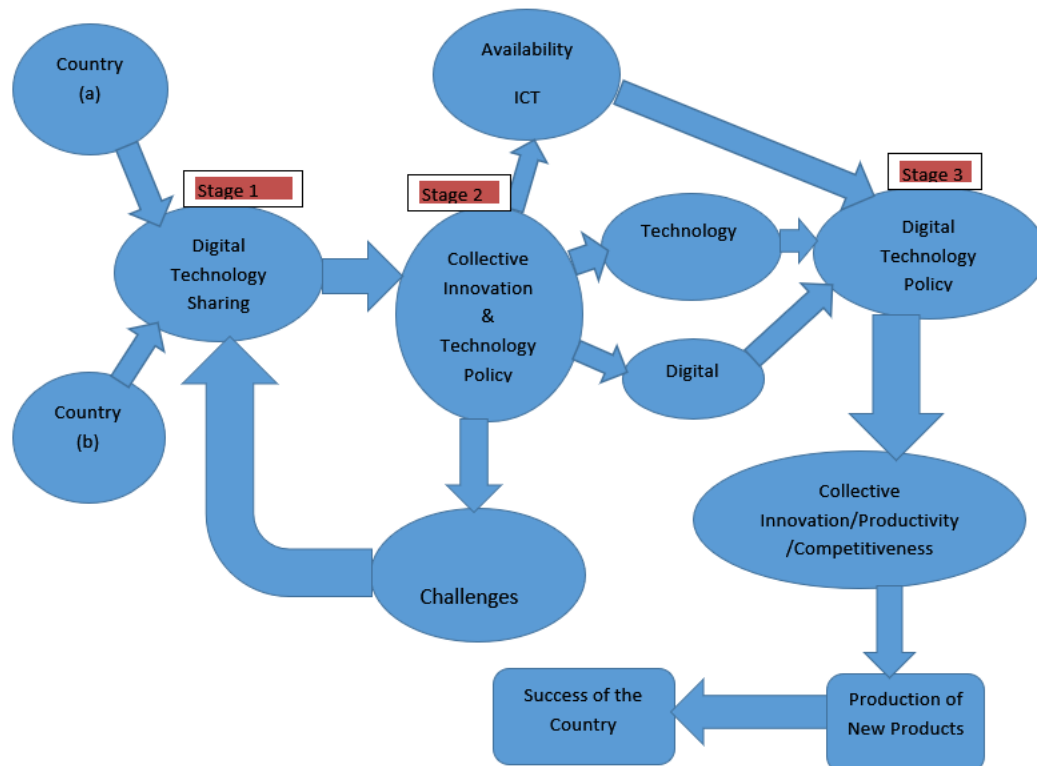


Figure 1.1 reveals that different countries required sharing digital and technology for sustainable development. The availability information communication technology (ICT) and digital technology policy are crucial to ensure countries support productivity in the nation to different sectors of agriculture, education, healthy, industry and technology. These aspects of ICT and digital technology policies in the countries assist to further their collective innovation, productivity and competitiveness during production of new products.

3. The digital diplomacy favours all kinds of states, but is a good opportunity for small states in advancing foreign policy goals.

4. Moreover, studies by Suntai and Targema (2017) have shown that, social media are essential social forces of democracy in Africa and are no doubts the social media revolutionizing the process of political communication and expanding the frontiers of political participation.

5. The use of digital technology provides an opportunity to foster a more deliberative and inclusive democracy in Indonesia and Malaysia (Alami et al., 2022).

6.0 CONCLUSION

By addressing the factors that fosters the collective digital and technology sharing, leading to improved problem-solving, innovation and overall success among Southeast Asian countries. The Southeast Asian countries required to create an environment where diverse perspectives of collective digital and technology sharing which are crucial for fostering a rich and dynamic knowledge base that must be practised effectively according the national digital and technology sharing policy.

REFERENCES

- 1) Aithal, P.S. (2023). How to create business value through technological innovations using ICCT underlying technologies. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 7(2), 232-292.
- 2) Alabdali, S.A., Pileggi, S. F., and Cetindamar, D. (2023). Influential factors, enablers, and barriers to adopting smart technology in rural regions: A literature review. *Sustainability*, 15(10), 7908.
- 3) Alami, A. N., Luong, D. N. A., Prihatini, E., Ramadhani, E., Go, J. R. R., Hafidzah, N., and Atiyah, U. (2022). Democratization in the digital era: Experience from Southeast Asia. *Journal of ASEAN Studies*, 10(2), 227-246.
- 4) Andrade, C. (2021). The inconvenient truth about convenience and purposive samples. *Indian Journal of Psychological Medicine*, 43(1), pp. 86-88.
- 5) Aondover, E.M., Tosin, Y.A.N., Akin-Odukoya, O.O., Onyejelem, T.E. and Ridwan, M. (2025). Exploring the Application of Social Media in Governance in Nigeria. *SIASAT*, 10(1), pp.30-43.

- 6) Borowiecki, M., Pareliussen, J., Glocker, D., Kim, E., Polder, M. and Rud, I. (2021). The Impact of Digitalization on Productivity: Firm-Level Evidence from the Netherlands Economics Department Working Papers No. 1680 Organization for Economic Co-operation and Development.
- 7) Basil, T.M. (2019). Health and Safety Information Seeking Behavior of Small-Scale Gold Miners at Sekenke-Singida, Tanzania (PhD Thesis, University of Dar-es-Salaam).
- 8) Cooper, R.G. (2024). The AI transformation of product innovation. *Industrial Marketing Management*, 119, 62-74.
- 9) Creswell, J., and Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing Among Five Approaches*, (4th ed.), New York: SAGE Publications.
- 10) Deloitte(2022).Digital innovation ecosystems, <https://www2.deloitte.com/global/en/pages/public-sector/articles/urban-future-with-a-purpose/digital-innovation-ecosystems.html> (Accessed on 10th November 2024).
- 11) Gaglio, C., Kraemer-Mbula, E. and Lorenz, E. (2022). The Effects of Digital Transformation on Innovation and Productivity: Firm-Level Evidence of South African Manufacturing Micro and Small Enterprises, *Technological Forecasting and Social Change*, 182, <https://doi.org/10.1016/j.techfore.2022.121785>.
- 12) Grama-Vigouroux, S., Saidi, S., Berthinier-Poncet, A., Lwango, A. and Sellami, M. (2022). Influence of Entrepreneurial Ecosystems on Innovation Ecosystems in Peripheral Regions: The Case of the Champagne-Ardenne Region, *Industry and Innovation*, 29(9), 1045-1074. <https://doi.org/10.1080/13662716.2022.2068998>.
- 13) Jameel, A.S., and Raewf, M.B. (2021) Impact of social networking and technology on knowledge sharing among undergraduate students. *International Business Education Journal*, 14(1), 1-16.
- 14) Karunakaran, A., Reddy, M.C. and Spence, P.R. (2013). Toward a model of collaborative information behavior in organizations. *Journal of the American Society for Information Science and Technology*, 64(12), pp.2437-2451.
- 15) Kouamé, S., & Langley, A. (2018). Relating micro-processes to macro-outcomes in qualitative strategy process and practice research. *Strategic Management Journal*, 39(3), pp. 559-581.
- 16) Kumar, S. and Saxena, S.(2025). The impact of globalization, technology and workforce diversity on industrial relations in the 21st century. *International Journal of Humanities Education*, 13(1), pp.1024-1038.
- 17) Martinez-Pelaez, R., Ochoa-Brust, A., Rivera, S., Felix, V.G. Ostos, R., Brito, H., and Mena, L.J. (2023). Rose of digital transformation for achieving sustainability: mediated role of stakeholders, key capabilities, and technology. *Sustainability*, 15(14), 11221.
- 18) Mazzucato, M. (2024). Collective value creation: a new approach to stakeholder value. *International Review of Applied Economics*, 38 (1-2)43-57.
- 19) Mulaydinov, F.M. (2024). Integrated information systems in industrial enterprises and business activities. Kokand University Research Base.
- 20) Namadi, H. M., and Aondover, E. M. (2020). Survey of reproductive health informationseeking behavior among pregnant women in some selected hospitals in Kano Metropolis. *Biomed J Sci & Tech Res/BJSTR*. DOI, 10, 1984-1987
- 21) Ndallu, S. J. (2020). Exploration of factors influencing health seeking behaviour among university students in Tanzania: a case of the University of Dodoma (Master dissertation, University of Dodoma).
- 22) Parekh, G., Underwood, K. and Atwal, A. (2021). Ethical Considerations for Doing Research with, and in Relation to, Disabled Children", Spencer, G. (Ed.) *Ethics and Integrity in Research with Children and Young People* (Advances in Research Ethics and Integrity, 7, Emerald Publishing Limited, Bingley, 73-86. <https://doi.org/10.1108/S2398-601820210000007010>.
- 23) Suntai, D. I. and Targema, T. S. (2017). New media and democracy in Nigeria: an appraisal of the opportunities and threats in the terrain. *Brazilian Journal* 2(4): pp. 198-209.
- 24) Thomas, G. (2021). *How to do your case study*, 3rd ed. London: Sage Publications Limited. Turner, A., Kabashi, A., Guthrie, H., Burket, R. and Turner, P., 2012. Use and value of information sources by parents of child psychiatric patients. *Health Information and Libraries Journal*, 28(2), pp.101-109.
- 25) Yao, W., and Li, L. (2023). Innovation technology capability, open technology innovation and firm growth, *Plos one*. 18(10), e0291227.
- 26) Wang, M. Hua, Y., Sun, H. L., and Chen, Y. (2023). Bridging the rural digital divide: avoiding the user churn of rural public digital cultural services. *Aslib Journal of Information Management*, 75(4), 730-751.
- 27) Yar-Adua, S. M., Msughter, A. E., and Garba, S. (2023). Media and National Development in Democratic Societies. *Political Journal Scientific Journal of Politics*, 3(3), 105-115



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