

## **DIGITALIZATION IN INDONESIAN COOPERATIVES: IS IT NECESSARY?**

**Achmad Nurdany\*<sup>1</sup>** 

**Anniza Citra Prajasari<sup>2</sup>**

<sup>1</sup> Department of Sharia Economics, Universitas Islam Negeri Sunan Kalijaga, Indonesia

<sup>2</sup> Department of Sharia Economics, Universitas Islam Negeri Sunan Kalijaga, Indonesia

### **ABSTRACT**

*Digitalization has already penetrated all sectors of life and dominates business models. This study evaluates the extent to which small businesses should adopt digitalization. We focus on the cooperative's business model currently fighting with another fast-growing and popular business model, the start-up. Then, we used direct field research, including descriptive analysis and in-depth interviews with cooperatives in the Yogyakarta Special Region, Indonesia. We found that the use of digital media by cooperatives in our study was minimal. From in-depth interviews, we found that some non-digital cooperatives insist on not using digitalization due to the lack of digital media penetration of their targeted customers and a preference for word-of-mouth marketing. One practical implication of this study is that digitalization depends somewhat on the addressed customer market model.*

**Keywords:** Digitalization, Cooperatives, Word of Mouth

**JEL Classification:** D22, G23, O14

**To cite this document:** Nurdany, A., & Prajasari, A.C., (2020). Digitalization in Indonesian Cooperatives: Is It Necessary?

*JDE (Journal of Developing Economies)*, Vol. 5 (2), 120-131.

### **ARTICLE INFO**

Received: June 15<sup>th</sup>, 2020

Revised: September 21<sup>st</sup>, 2020

Accepted: September 24<sup>th</sup>, 2020

Online: December 3<sup>rd</sup>, 2020

\*Correspondence:

Achmad Nurdany

E-mail:

[achmad.nurdany@uin-suka.ac.id](mailto:achmad.nurdany@uin-suka.ac.id)

### **Introduction**

Digitalization has penetrated all sectors of life. It changes how people choose transportation, how to arrange a trip, how to access a banking facility, how fast payment can be done, or even how to order food. Digitalization simplifies the flow of economic transactions and cuts much of the time people spend. It represents extraordinary efficiency for the business process on one side, but it can cause a massive reduction in labor absorption on the other side. For the business process's efficiency, digitalization can widen the area for customer targeting, increase revenue, improve customer services, and develop management systems. All these improvements can be achieved with less cost by digitalizing all the business processes instead of keeping them in traditional formats.

The implementation of using computers and communication technologies through the internet and local networks to simplify organizational business processes can be defined as a digital economy (Lane, 1999). Digital economy disruption includes any economic activities that use technology and internet network infrastructure, such as selling, buying, transferring money, or paying for a bill. The digital economy is also predicted to have much economic impact, especially in Indonesia. Das, Gryseels, Sudhir, & Tan (2016) reported that economic growth is

more than USD150 million annually. Digital companies (also defined as start-ups) purvey simple convenience for their customers directly from the smartphone application (Dutta, 2015). The development of start-ups is a primary reason for the digital economy disruptions.

However, for business institutions like cooperatives, does digitalization matter? The question of which digitalization affects the business institution has also been arisen by (Joshi & Yermish, 2000). As one of the business institutions, Cooperatives differ from other enterprises, like Bradley (1945) classified cooperatives as institutions not for profit. Canoyer (1945) produced an early paper that explained the conditions of cooperatives by discussing Central Cooperative Wholesale in 1932 in North Central State. Another article was written by Olsen (1946), which described the development of cooperative associations in Europe after World War II, and Norby (1952) emphasized consumer cooperatives in Norway.

In Indonesia's case, the members of cooperatives hold the highest position of organizational decisions, and members also have the right to gain a benefit from the revenue generated from the annual operations of cooperatives. The profit received by the members is called *Sisa Hasil Usaha* (SHU). The development of the cooperatives in Indonesia in the recent past has been rapid. As of March 2017, the total number of cooperatives in Indonesia reached 208,373, consisting of 151,546 active cooperatives and 56,917 inactive cooperatives. There has been a significant increase from 1.71 percent in 2014 to almost 4 percent in 2016. Moreover, the number of cooperatives classified as active cooperatives has increased by an average of 2 percent annually.

As of March 2017, around 26.6 million people joined as members of cooperatives, with a total business volume of 175 trillion Indonesian rupiahs with the share of the SHU (member profits) of 8.2 trillion Rupiah. In terms of employment, cooperatives were able to absorb up to 344,000 workers, consisting of 22,000 managers and 324,000 employees. All cooperatives in Indonesia had a total capital of 160 trillion Rupiah divided into internal capital of 78 trillion and external capital of 82 trillion Rupiah. Table 1 below depicts the scope of cooperatives' performance in Indonesia.

**Table 1: National Cooperatives Performance in Indonesia**

No	Number of	2017	Measurement
1	Total Cooperatives	208,373	Unit
2	Active Cooperatives	151,456	Unit
3	Inactive Cooperatives	56,917	Unit
4	Members	26,538,940	People
5	Managers	22,579	People
6	Employers	324,108	People
7	Internal Capital	78,27	Trillion IDR
8	External Capital	81,55	Trillion IDR
9	Business Volume	175,05	Trillion IDR
10	SHU	8,22	Trillion IDR

Source: Ministry of Cooperatives and SMEs, Republic of Indonesia

Cooperatives play an important part in Indonesian economic growth, especially when combined with the Small and Medium Enterprises (SMEs) sector. Data from the Ministry of Domestic Product (GDP) reached 61.41 percent. This considerable contribution becomes important because these two economic sectors compose significant measures of the real conditions of economic growth in Indonesia. These two sectors can also contribute positively to the employment absorption in Indonesia for up to 96.71 percent.

This contribution may even increase if companies are willing to implement digitalization in every process of their businesses. Many papers discussed in the literature try to convince the readers and business managers about the benefits of digitizing business processes (Ainin et al., 2015; Burkaltseva et al., 2017; Dutta, 2015; Goparaju, 2017; Klamet, 2017; Sovani & Jayawardena, 2017). This paper evaluates whether the business process digitalization is needed or not in the digital era. We focus on the cooperative business model currently fighting with another fast-growing and popular business model, namely start-up. The start-up business process relies almost entirely on technological applications, while the digitalization process in the cooperatives is still a subject of debate.

## Literature Review

Bowman (1996) first introduced the term digitalization in the economic sector. Digitalization is part of network intelligence's age to advance communications, computing, and publishing in a modern style. Digitalization impacts many sectors, such as luxury fashion (Escobar, 2016), banking and retail (Dutta, 2015), media and publishing (Klamet, 2017), payment (Goparaju, 2017), tourism (Sovani & Jayawardena, 2017), energy (Dellermann, Fliaster, & Kolloch, 2017) and agriculture (Burkaltseva et al., 2017). Even economics is now entering the age of big data and blockchain technology, bringing digitalization to the next level (Vovchenko, Andreeva, Orobinskiy, & Filippov, 2017).

Digitalization is the term that is closest to the Fourth Industrial Revolution, which has affected the life science industry (Gbadegeshin, 2019). Gbadegeshin (2019) also revealed that digital system commercializes information sourcing, assessment, and big data creation, which shows the importance of digitization in every company. Further research was conducted by Kuusisto (2017), who examined the big picture of a literature review about digitalization effects in organizational processes.

The digital business model is the opposite of the traditional business model, measured through internet data consumption, targeted market, and technologies. It is the new economic business model that will disrupt the traditional model. Personal data can define disruption as an economic resource, future market, and digital connectivity (Ng, 2014).

Despite digitalization, which has overwhelmed many economic sectors, this paper evaluates the specific effect on cooperatives' business models. Dastane & Thakkar (2015) defined cooperatives as associations working and acting together to reach a common goal. Their paper analyses the strength and weaknesses of cooperatives in Maharashtra, India. The competitiveness challenges for cooperatives include significant leadership development, bureaucratic and political separation, modern and innovative techniques adoption, and customer service improvement.

Djokovic et al (2017) researched the cooperatives sector's role in revitalizing rural tourism through the operation of agrarian cooperatives. Khumalo (2014) conducted similar research about cooperatives' contribution in South Africa to improve local economic growth.

Meanwhile, [Halilintar \(2018\)](#) examined the impact of cooperatives on economic growth in Indonesia. The study used quantitative and descriptive analysis, and the result revealed that economic growth would likely slowly develop in the future, but the development of cooperatives will undoubtedly influence it.

Another study conducted by [Riswan, Suyono, & Mafudi \(2017\)](#) examined the significant impact of modern business practices on traditional businesses, including cooperatives village units. The study revealed that cooperatives' weaknesses are limited resources, low levels of education, and traditional management styles. The study provided an effective revitalization model to tighten up the performance of financial and non-financial processes. This revitalization model included reactivating inactive cooperatives, restructuring them, and strengthening their businesses.

[Midoun & Ismail \(2018\)](#) have researched digital free trade zones and the impact on Malaysia's economy. The result revealed that Malaysia's economy grows more than the average because of implementing a digital free trade zone and its technological hub. The performance of digitalization will lead the country to be among high income in the upcoming ten years.

Another research found that digitalization has also penetrated commerce. The study has been done in Pakistan using TAM (Technology Acceptance Model) method. The result revealed that digital marketing is associated with online shopping behavior. Another product described that the factors that determine the online shopping intention in Pakistan are perceived usefulness, ease of use, digital engagement, enjoyment, and legal framework ([Ahmed & Akhlaq, 2015](#)).

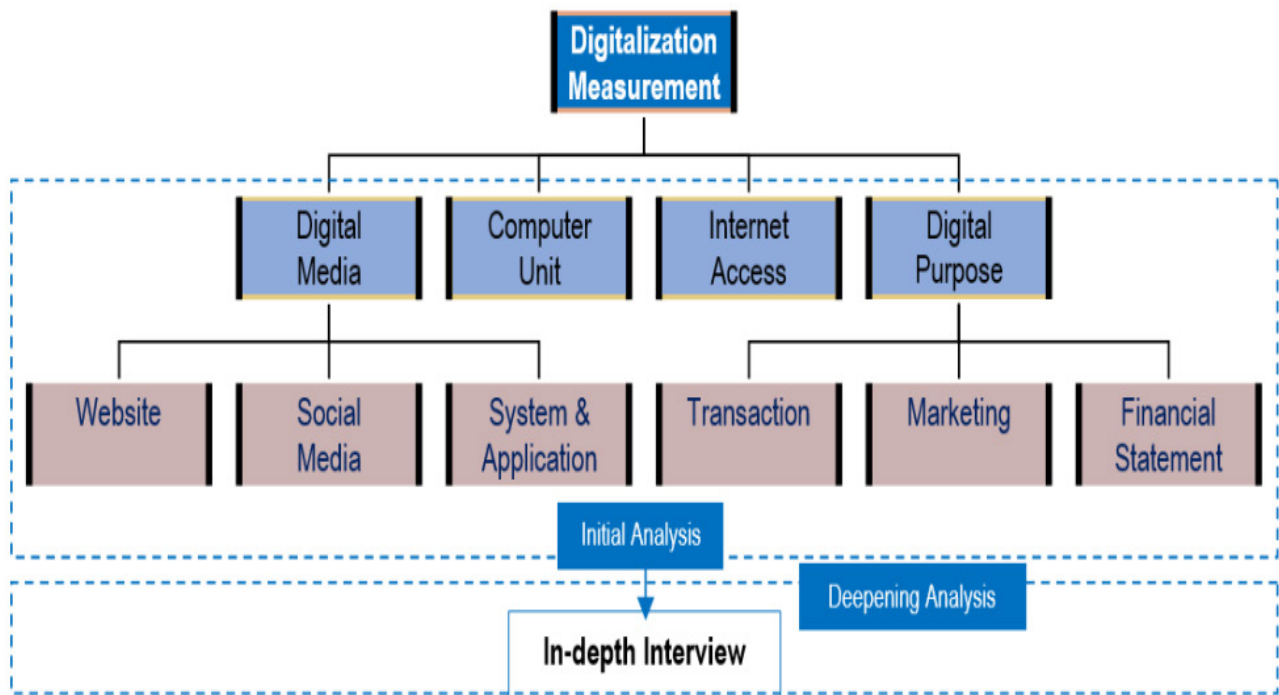
In particular, the impact of digitalization on cooperatives was raised by [Yueh, Chen, & Chen \(2013\)](#). This study explored farmers' associations in Taiwan using spatial analysis. The result revealed that the digitalization process was affected by the geographical neighborhood and organizational characteristics. One practical implication of this study was that the development of information technology has to be implemented in every business process to make the most significant impact on cooperatives' development.

## Data and Research Methods

This study was conducted using mixed methods, including direct field research, descriptive analysis of 20 cooperatives, and in-depth interviews of employees and senior managers. All cooperatives were located in Yogyakarta Special Region, Indonesia. This study's quantitative data was collected directly from employees and senior managers of cooperatives using questionnaires. Yogyakarta Special Region consists of five districts, namely Kota Yogyakarta, Sleman, Bantul, Kulon Progo, and Gunung Kidul. There are 2,347 active cooperatives throughout the region. There are also five cooperatives, such as consumer cooperatives, student cooperatives, employment cooperatives, village cooperatives, and Islamic cooperatives. We collected primary data from 20 representative cooperatives. The cooperatives' sample was taken representatively from four cooperatives with each of the region's five districts. Then, four cooperatives were taken with each of the five types of cooperatives. In each cooperative, we interviewed at least three employees and one senior manager.

The questionnaires measured the extent of each cooperative's digitalization, consisting of four points, namely Strongly Agree, Agree, Disagree, and Strongly Disagree. The points were used to collect information on information technology such as websites, e-mail, social

media, and information systems. Additional questionnaire items were used to collect information on the level of use and the importance of information technology for cooperative competitiveness in Yogyakarta. To obtain an accurate description of the use of digital media in cooperatives, we then analyzed the following four variables from the questionnaires obtained from respondents: (1) Use of digital media in cooperatives, such as website, social media, software or information system, and smartphone application, (2) Adequacy of computer units, (3) Availability of internet access and networks and their utilization, and (4) Use of digital media for transactions, marketing, and financial statements.

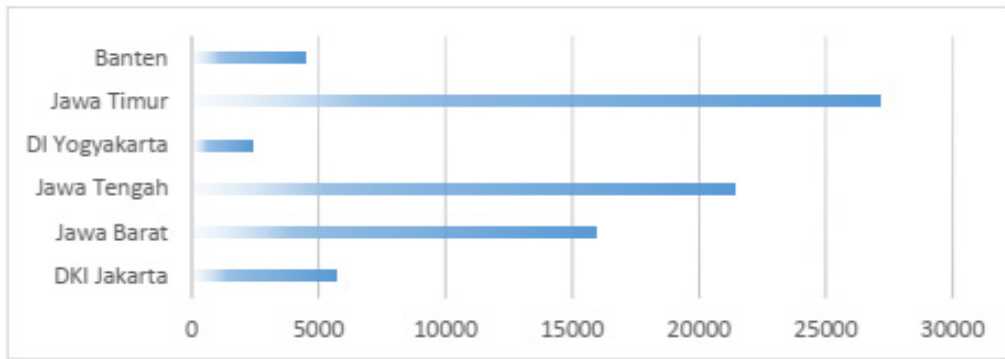


**Figure 1: Conceptual Framework**

Besides, this paper describes the real condition of digitalization in cooperatives based on questionnaire responses. We deepened our analysis of the reasons behind the current situation of digitalization in cooperatives based on in-depth interviews with employers and senior managers. In semi-structured interviews, we asked them to explain digital system problems, share their opinions on the suitability of digitalization, and explain causes for the lack of use of digital systems. Simultaneously, surveys and interviews enabled us to map the cooperatives’ obstacles, mostly related to the use of information technology to improve cooperatives’ competitiveness.

**Finding and Discussion**

There are currently around 2,347 active cooperatives in the Special Region of Yogyakarta (DIY), with a percentage of growth reaching 3.85 percent higher than the average development of cooperatives nationally. The number of cooperative business volumes in DIY reached 2.8 trillion with a total SHU (profit) share of 75 billion Rupiah. Yogyakarta is also a province with a lower cooperative business volume and percentage of SHU than other areas in Java. The number of active cooperatives by region is depicted in Figure 2 below.



**Figure 2: Number of Active Cooperatives in Java Island**

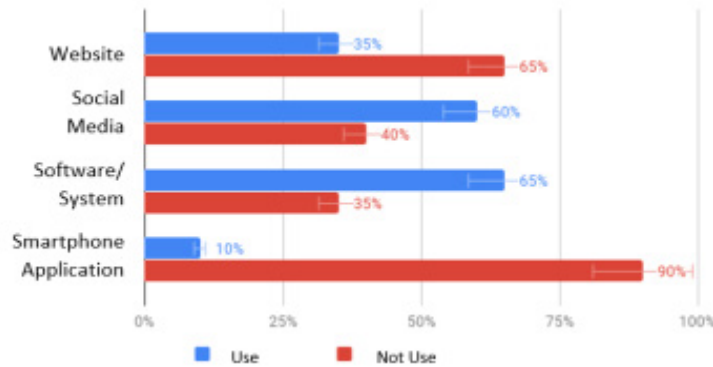
Source: Statistics Indonesia, processed

Demographic factors such as the relatively small area and the smaller population numbers are two factors causing the low performance of cooperatives in Yogyakarta. However, other important aspects related to competitiveness need to be considered. Even with a smaller quantity, if cooperatives in Yogyakarta are competitive, they will produce optimum performance.

Based on the actual condition of cooperatives in Yogyakarta, we now analyze the adoption of digital technology. The analysis of the four variables described in the previous section is presented in this section.

**Use of Digital Media**

To analyze digital media use in cooperatives, we identified the types of digital media used by cooperatives in Yogyakarta, including websites, social media, software/information systems, and smartphone applications. Figure 3 below shows the types of digital media used by cooperatives in Yogyakarta.



**Figure 3: Use of Digital Media in Cooperative**

Source: Primary Data, processed

Based on Figure 3, the most used digital media was the software/information system by 65 percent of respondent cooperatives. The remaining 35 percent of respondents stated that they did not use information systems in cooperative operations. Furthermore, the second most used digital media was social media at 60 percent. The primary social media used were Facebook pages, WhatsApp groups, or Line applications, which aimed to facilitate sharing information with cooperative members. The remaining 40 percent of respondents stated that they did not use social media in cooperative activities.



Besides, the use of two types of digital media was lower than the previous two types of social media, namely websites and smartphone applications. Thirty-five percent of respondents stated that they used digital media websites to support cooperative operations, usually to share general information about cooperatives and facilitate their members to get the latest news. The remaining 65 percent of cooperatives in Yogyakarta did not use websites to support their operational activities. Lastly, the lowest percentage was the use of smartphone applications by only 10 percent of respondents. The remaining 90 percent stated that they did not use smartphone applications, for many because it was considered not necessary and did not have a significant effect on cooperatives' business.

Based on the data, it can be concluded that digital media and technology usage fell below our expectations. Yet this condition can be explained from the in-depth interviews in the next section.

### ***Adequacy of Computer Units***

Identifying computer units' adequacy is an essential indicator for analyzing the use of digital media in cooperatives. It is seen as one of the primary measurements for the cooperatives' efforts to utilize digital media. The result indicated that 40 percent of respondents stated that their cooperatives were equipped with adequate computer unit availability. The remaining 60 percent said that the cooperatives did not have sufficient computer units, and for some cooperatives, no computers were available. Thus, it can be concluded that the use of digital media in cooperatives was not optimal due to the inadequacy of computer units to support cooperative activities.

### ***Availability and Utilization of Internet Access by Cooperatives***

In addition to reviewing the adequacy of available computer units, the availability of internet networks for cooperatives is a primary indicator of whether digital media can be utilized optimally. Our results showed that 55 percent of respondents stated that the cooperatives had been supported by internet networks' availability, which facilitated their cooperatives in using digital media. The remaining 45 percent said that cooperatives had not been supported by the availability of internet network, which inhibited digital media use by cooperatives. It was likely caused by the limited ability of cooperative funding to access internet networks specifically for cooperative activities. It was caused by geographical factors when cooperatives were located in remote areas or mountainous areas such as in Gunung Kidul and Kulon Progo Regency.

The second area of inquiry was related to the utilization of internet services. The availability of internet access will not produce anything for the progress of the cooperatives without effective utilization. In this study, we found that only 45 percent of respondents utilized internet networks for communicating. The remaining 55 percent did not utilize internet networks for communication purposes because some cooperatives have not been supported by education on its utilization. It was an exciting finding, indicating that the available training related to digital media use to help develop cooperatives in the digital era has not been relevant to many cooperatives.

### ***Availability and Utilization of Internet Access by Cooperatives***

Digital media can be used by businesses such as cooperatives in various operational activities. We found an interesting phenomenon from the data analyzed that digital media for

cooperative marketing products occupied the lowest rank, with only 20 percent of respondents reporting its usage. One of the keys to supporting the success of a cooperative business lies in its marketing management. Digital media for product marketing does not only serve to provide information on cooperatives' products, but it can also be used to expand and optimize market reach both within the geographical area of the cooperatives or outside the area. Furthermore, digital media for product marketing can build a positive brand image and brand loyalty for the cooperatives.

It can also be identified that the highest use of digital media by respondents was for member databases. Digital member database storage was considered more efficient and effective because it facilitated cooperatives to access member data faster and more safely and minimize physical data file storage. Besides, digital systems allow for making data changes more comfortable, more quickly, and more accurately.

Furthermore, the second-highest use of digital media was for financial transaction activities by 55 percent of respondents. The use of computers for financial transactions was considered to facilitate the transaction process, record financial transactions faster and more accurately, and secure financial data. However, 45 percent of respondents conducted conventional financial transactions without computer assistance. Another area of inquiry was the use of information systems in cooperative financial statements. Forty percent of respondents stated that their cooperatives had used information systems for their financial statements and to analyze performance. Respondents reported that they used these systems to generate financial statements to meet internal and external audiences' demands for transparency. The remaining 60 percent of respondents stated that they had not used information systems for financial statements or managerial procedures. In other words, these cooperatives ran their businesses using conventional paper-based methods.

### ***Word of Mouth Marketing Model Preference***

We found an interesting fact that some respondents considered digitalization not to be necessary for their business model from the analysis. The result also revealed that the use of digital media by cooperatives was minima, as can be seen from some parameters such as the use of websites, social media, software/information systems, smartphone applications, computer units, and internet access. To find why these cooperatives were not adopting digitalization, we interviewed employers and senior managers. From these in-depth interviews, the non-digital cooperatives insist on not using digitalization because of the lack of digital media penetration for their targeted customers. In this case, most respondents described their targeted customers of cooperative products as older adults, villagers, and urban people who were unfamiliar with digital media. The targeted customers for cooperatives' products include a significant amount of the 50 percent of the population that has not yet been digitally penetrated. The use of digital media in the process of transactions, marketing, and advertising to customers who are not digitally engaged was seen as useless and not necessary.

Moreover, respondents reported that many of their customers preferred the word of mouth marketing model to fit the local values of product marketing instead of digital advertising. Digital advertising is currently viral, practiced by many business managers across the world. Digital advertising is indeed cheaper than traditional advertising. However, business managers need to pay close attention to the targeted customers of their products. In our research, many local people prefer to consider the recommendations of their neighbors and friends rather than to see product advertisements to motivate their purchases. This finding is



similar to a study by (Weiber & Wolf, 2013).

Other informants of our research noted the communities around where their cooperatives operate, where customers prefer to buy products based on other colleagues' recommendations compared to viewing advertisements on the media, including television, billboards, social media, and websites. In local terms, this process is called as *getok tular* or word of mouth, as Weiber & Wolf (2013) explained in their paper. This preference helps present our research finding that digital media for product marketing in cooperatives was no higher than 20 percent. The finding is also similar to Taiminen & Karjaluto (2015) studies and (Ainin et al., 2015).

This study's practical implication is that business institutions' digitalization depends mostly on the addressed customer market model (Taiminen & Karjaluto, 2015). There will likely be different marketing channels for other customer markets, meaning that in some cases, digitalization is not necessary. Therefore, every business manager should pay attention to their targeted customers in terms of digital penetration and their marketing model preference.

## Conclusion

Digitalization simplifies the flow of economic transactions and cuts much time people spent on it. It creates extraordinary efficiency for the business process by widening the targeted customer area, increasing revenue, improving customer services, and developing management systems. These improvements can be made at a lower cost by digitalizing the business process instead of managing it traditionally.

However, for business institutions like cooperatives, does digitalization matter? This paper has evaluated the extent to which small businesses should adopt digitalization. This study has focused on cooperatives, using mixed methods of direct field research with descriptive analysis and in-depth interviews of 20 cooperatives and their top managers. The cooperatives are located in Yogyakarta Special Region, Indonesia.

The results have shown that the use of digital media in Yogyakarta cooperatives was low according to the parameters of the use of websites, social media, software/information systems, and smartphone applications. In assessing computer units' adequacy, 60 percent of respondents stated that they did not have adequate computer units. In comparison, the remaining 40 percent of respondents indicated that they had sufficient computer units. Also, only 45 percent of respondents had an installed internet network, but 55% of its utilization was not for communication between cooperative members. In the aspect of digital media use in cooperative activities, optimization, and education were needed so that digital media could be used to enable cooperatives to compete in the digital era.

A significant finding of this study is that digitalization is not necessary for some cooperatives' business models. We found that the use of digital media by cooperatives in our research was minimal, as can be seen from some parameters such as websites, social media, software/information system, smartphone application, computer units, and internet access. From in-depth interviews, we found that the non-digital cooperatives insist on not using digitalization because of the lack of digital media penetration of their targeted customers. Moreover, they believed that customers preferred a word of mouth marketing model to follow local product marketing values rather than digital advertising.

One practical implication of this research is that businesses' digitalization depends on the addressed customer market model, and thus it is not always necessary. Digitalization is not essential for cooperatives that thrive on the 'word of mouth' marketing model (Weiber & Wolf, 2013). The need for digitalization varies among companies such as cooperatives or SMEs, and some are not utilizing the full potential of digital media (Taiminen & Karjaluoto, 2015). Business managers who operate in different countries should pay attention to this finding. In a developing country where digital use is below the global average, business managers should consider avoiding business digitalization that is not essential as long as the targeted customer base is not yet ready to transition to digital.

### Acknowledgement

This research was fully supported by Lembaga Penelitian dan Pengabdian Masyarakat (LPPM) UIN Sunan Kalijaga, we do thanks for it.

### References

- Ahmed, E., & Akhlaq, A. (2015). Digital commerce in emerging economies: Factors associated with online shopping intentions in Pakistan. *International Journal of Emerging Markets*, 10(4), 634–647. <https://doi.org/10.1108/IJoEM-01-2014-0051>
- Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N. I., & Shuib, N. L. M. (2015). Factors influencing the use of social media by SMEs and its performance outcomes. *Industrial Management and Data Systems*, 115(3), 570–588. <https://doi.org/10.1108/IMDS-07-2014-0205>
- Bowman, J. P. (1996). The Digital Economy: Promise and Peril in the Age of Networked Intelligence. *Academy of Management Perspectives*, 10(2), 69–71. <https://doi.org/10.5465/ame.1996.19198671>
- Bradley, W. L. (1945). Terminology and forms of financial statements for cooperatives ; Taxation of cooperatives. Retrieved from <https://ci.nii.ac.jp/ncid/BB17755203>
- Burkaltseva, D. D., Sivash, O. S., Boychenko, O. V., Savchenko, L. V., Bugaeva, T. N., & Zotova, S. A. (2017). Realization of investment processes in the agricultural sector of the digital economy. *European Research Studies Journal*, 20(4), 366–379.
- Canoyer, H. G. (1945). A Study of Consumer Cooperative Associations in the North Central States. *Journal of Marketing*, 9(4), 373. <https://doi.org/10.2307/1245289>
- Das, K., Gryseels, M., Sudhir, P., & Tan, K. T. (2016). Unlocking Indonesia's Digital Opportunity. *McKinsey & Company*, 1–28.
- Dastane, S. R., & Thakkar, S. (2015). Analysis of Strengths and Weaknesses of Cooperatives - with Special Reference to the Development of Cooperative Movement in Maharashtra, India. *Journal of Commerce and Management Thought*, 6(1), 88. <https://doi.org/10.5958/0976-478x.2015.00006.3>
- Dellermann, D., Fliaster, A., & Kolloch, M. (2017). Innovation risk in digital business models: the German energy sector. *Journal of Business Strategy*, 38(5), 35–43. <https://doi.org/10.1108/JBS-07-2016-0078>
- Djokovic, F., Pejanovic, R., Mojsilovic, M., Djordjevic-Boljanovic, J., & Plecic, K. (2017). Opportunities to revitalise rural tourism through the operation of agrarian cooperatives.

- Ekonomika Poljoprivrede*, 64(3), 1115–1132. <https://doi.org/10.5937/ekopolj1703115d>
- Dutta, S. (2015). Digital Business. A New Customer - Savvy Business Platform for Indian Banking and Retail Sectors - Issues and Challenges. *Indian Journal of Management Science. Nasik*, 5(1), 43–49.
- Escobar, A. (2016). The Impact of the Digital Revolution in the Development of Market and Communication Strategies for the Luxury Sector (Fashion Luxury). *Central European Business Review*, 5(2), 17–36. <https://doi.org/10.18267/j.cebr.149>
- Gbadegeshin, S. A. (2019). The Effect of Digitalization on the Commercialization Process of High-Technology Companies in the Life Sciences Industry. *Technology Innovation Management Review*, 9(1), 49–63. <https://doi.org/10.22215/timreview/1211>
- Goparaju, H. (2017). Digital Payment Sector : The Sunrise Industry in India : A Review. *International Tax Review*, 8(7), 7–20.
- Halilintar, M. (2018). Cooperatives and economic growth in Indonesia. *European Research Studies Journal*, 21(2), 611–622. <https://doi.org/10.35808/ersj/1027>
- Joshi, M., & Yermish, I. (2000). The Digital Economy: A Golden Opportunity for Entrepreneurs? *New England Journal of Entrepreneurship*, 3(1), 15–21. <https://doi.org/10.1108/neje-03-01-2000-b003>
- Khumalo, P. (2014). Improving the contribution of cooperatives as vehicles for local economic development in South Africa. *African Studies Quarterly*, 14(4), 61–79.
- Klamet, A. (2017). Make or Buy? A Qualitative Analysis of the Organisational Handling of Digital Innovations in the German Book Publishing Sector. *Publishing Research Quarterly*, 33(1), 41–55. <https://doi.org/10.1007/s12109-016-9493-0>
- Kuusisto, M. (2017). Organizational effects of digitalization: A literature review. *International Journal of Organization Theory and Behavior*, 20(3), 341–362. <https://doi.org/10.1108/ijotb-20-03-2017-b003>
- Lane, N. (1999). Advancing the Digital Economy into the 21st Century. *Information Systems Frontiers*, 1(3), 317–320. <https://doi.org/10.1023/A:1010010630396>
- Midoun, S., & Ismail, B. (2018). Digital and Free Trade Zones Impact on Malaysias Economy and Its Prospects (20002018). *International Journal of Economics and Financial Issues*, 8(4), 39–44.
- Ng, I. C. L. (2014). New business and economic models in the connected digital economy. *Journal of Revenue and Pricing Management*, 13(2), 149–155. <https://doi.org/10.1057/rpm.2013.27>
- Norby, J. C. (1952). Consumers' Cooperatives in Norway. *Journal of Marketing*, 16(4), 423. <https://doi.org/10.2307/1246978>
- Olsen, A. B. (1946). Book Review: Cooperative Associations in Europe and Their Possibilities for Postwar Reconstruction. *Journal of Marketing*, 10(3), 317–317. <https://doi.org/10.1177/002224294601000325>
- Riswan, R., Suyono, E., & Mafudi, M. (2017). Revitalization model for village unit cooperative in Indonesia. *European Research Studies Journal*, 20(4), 102–123. <https://doi.org/10.1177/002224294601000325>

org/10.35808/ersj/822

Sovani, A., & Jayawardena, C. (Chandi). (2017). How should Canadian tourism embrace the disruption caused by the sharing economy? *Worldwide Hospitality and Tourism Themes*. <https://doi.org/10.1108/WHATT-05-2017-0023>

Taiminen, H. M., & Karjaluoto, H. (2015). The usage of digital marketing channels in SMEs. *Journal of Small Business and Enterprise Development*, 22(4), 633–651. <https://doi.org/10.1108/JSBED-05-2013-0073>

Vovchenko, N. G., Andreeva, A. V., Orobinskiy, A. S., & Filippov, Y. M. (2017). Competitive Advantages of Financial Transactions on the Basis of the Blockchain Technology in Digital Economy. *European Research Studies Journal*, XX(3B), 193–212. <https://doi.org/10.35808/ersj/778>

Weiber, R., & Wolf, T. (2013). Word-of-Mouth Marketing. *WiSt - Wirtschaftswissenschaftliches Studium*, 42(4), 210–212. [https://doi.org/10.15358/0340-1650\\_2013\\_4\\_210](https://doi.org/10.15358/0340-1650_2013_4_210)

Yueh, H. P., Chen, T. L., & Chen, C. T. (2013). A spatial exploration of factors affecting digitalization of farmers' associations in Taiwan. *Aslib Proceedings: New Information Perspectives*, 65(6), 605–622. <https://doi.org/10.1108/AP-11-2012-0088>