An International Journal

Indonesian Journal of Economics, Business, Accounting, and Management

E-ISSN: 2988-0211 | Vol. 02, No. 06, 2024, pp. 40-49 | DOI: 10.63901/ijebam.v2i6.90

Journal Homepage: https://journal.seb.co.id/ijebam/index

Digital Literacy Analysis to Support Digital Transformation in An Effort to Increase User Interest in The Sibakul Application in Cooperatives Assisted by The Yogyakarta Cooperatives and SMEs Office

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INFORMASI ARTIKEL

Section
Internship Report Article

Article History
Article Submitted: 23/07/2024
Accepted: 30/07/2024
Available online: 10/08/2024

Keywords.
digital transformation
digital literacy level
sibakul jogja
cooperative

ABSTRACT

The rapid development of technological systems encourages DISKOP UKM DIY to undergo digital transformation from conventional to more modern. This digital transformation is the key to success for cooperatives and businesses to survive, rise and thrive in the digital era, especially where the business and market environment is rapidly changing. The quantitative approach model used in the research will be discussed below this chapter. The purpose of this model is to study how digital transformation impacts the cooperatives assisted by the DIY Cooperative and SME Agency. Of the assessment indicators, the aspect of problems related to digital technology was the point that received the lowest response among others. The DIY Department of Cooperatives and SMEs needs to increase the intensity and number of participants in educational and socialization activities through the Sibakul Jogja digital application to understand the importance of digital transformation.

INTRODUCTION

The Cooperatives and Small and Medium Enterprises Office of Yogyakarta Special Region Province is a government agency responsible for carrying out government affairs in the field of cooperatives and small and medium enterprises at the Yogyakarta Special Region Province level.

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In accordance with DIY governor regulation No. 96 of 2022 on the position, organizational structure, duties, functions, and work procedures of the Office of Cooperatives and Small and Medium Enterprises, this agency plays an important role in the development of cooperatives and small and medium enterprises, based on cooperative principles that use the principle of kinship. This agency is also responsible for providing guidance and development to cooperatives and business actors, as well as carrying out government tasks related to cooperatives and small and medium enterprises (Aji, 2024). The rapid development of technology systems encourages DISKOP UKM DIY to switch to digital, switching from conventional models to modern models. To survive, rise, and thrive in the digital era, especially in an era where the market and business environment is changing rapidly, this digital transformation becomes essential.

The focus of this digital transformation according to DISKOP UKM DIY is to collect data on cooperatives and businesses in Yogyakarta more quickly, accurately, and efficiently. In addition, digital transformation helps cooperatives and businesses have modern services that can provide higher quality and a wider range of services. DISKOP UKM DIY directs the digital transformation in the form of the Digital Sibakul Jogja Application with the hope that it can make the management of coaching for cooperatives and businesses more accessible (Wahyudi, 2023). Sibakul Jogja according to DISKOP UKM DIY stands for Information System for Cooperative Development and Micro, Small and Medium Enterprises of Yogyakarta Special Region which is a digital platform developed by DISKOP UKM DIY to support the development of cooperatives and MSMEs in Yogyakarta. The highly utilized features of this digital platform are mapping and classification, capacity and competency building, product and service marketing and empowerment for cooperatives and MSMEs in Yogyakarta.

In the current 4.0 era, cooperatives and businesses must be able to understand the use of technology. The skill needed along with the renewed business processes by technology is digital literacy. Digital literacy emerged alongside the evolution of the internet and demands knowledge of how to access, search, and critically analyze information (Sibakul, 2024). Digital literacy is an important asset for cooperative and corporate actors to develop their businesses. In the 2017 UNESCO Ministry of Education and Culture report, digital literacy is a skill (life skill) that not only involves the ability to use technology, information and communication devices, but also the ability to learn to socialize, be critical, creative and inspired as digital competition (Karpati, 2011). Research from the Center for Indonesian Policy Studies (CIPS) also shows that businesses' lack of knowledge and ability to use digital services may be one of the contributing factors. The low level of digital literacy in Indonesia, especially Yogyakarta, may be the cause of this ignorance.

Cooperatives and businesses, among others, must have digital literacy, which is the ability to utilize digital media (Zahra, 2023). Minister of Trade Mohammad Lutfi said that his party supports the improvement of digital literacy of business actors because it is related to the development of business actors' capabilities (Kominfo, 2022). Digitalization of cooperatives and MSMEs is one example of such capacity building. This internship Final Project Report aims to analyze the factors causing the slow digital transformation and the role of digital literacy in the SiBakul Jogja Digital Application. This paper describes the real situation about the obstacles of cooperatives and business actors in using the SiBakul Jogja Digital Application. This research involves cooperatives and business actors assisted by DISKOP UKM DIY. Obstacles will be seen from the aspect of human resources to businesses owned by cooperatives and fostered business actors. After that, strategies can be formulated to encourage cooperatives and business actors to undergo digital transformation using the SiBakul Jogja application.

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LITERATURE REVIEW

Digital Literacy

A recent definition by Hobbs (2017) states that digital literacy is a constellation of knowledge, skills and competencies needed to thrive in a technology-dominated culture. Iordache, Mariën and Baelden (2017) categorize digital literacy indicators, including operational and technical, digital information and communication, digital content creation and strategic. According to Voogt *et al.* (2013) in the world of work, digital literacy is defined as skills that are generally related to the use of applications developed by employees to improve the digital economy of the organization.

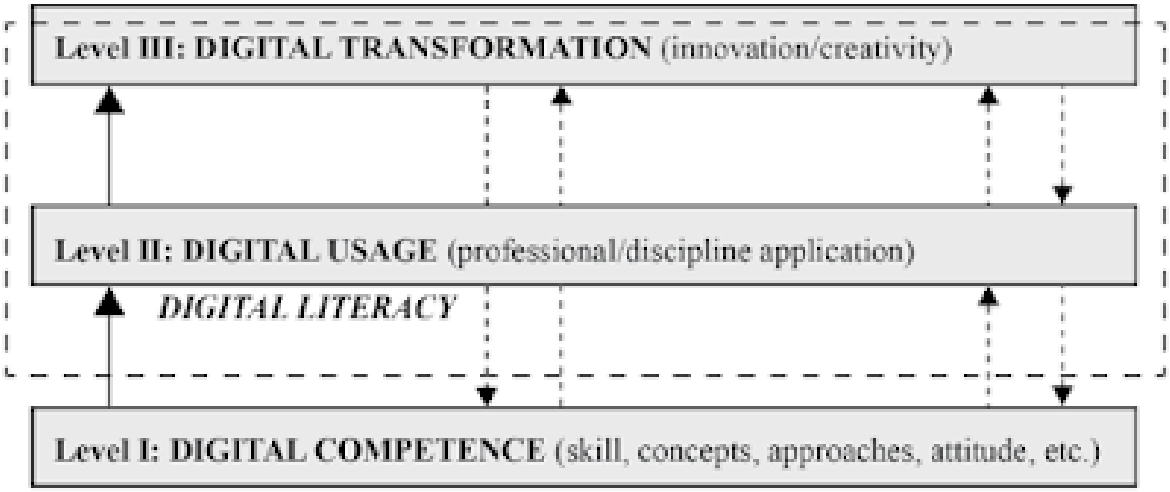

Figure 1. Digital Literacy Level

Source: Processed by The Author (2024)

There are three levels to digital literacy. The first is digital competence which includes skills, concepts, approaches and behaviors. The second is digital usage which refers to the application of digital competencies related to a particular context. The third is digital transformation which requires creativity and innovation in the digital world. Several factors become determinants of success that are needed to ensure the success of each digital transformation project. These factors include leadership style, organizational strategy and structure, management style, technology, and customer needs and demands. However, perhaps the most significant challenge facing companies is the readiness of employees to deal with organizational change. This is because no organizational change can be successfully implemented unless employees are ready for it. Measuring digital transformation is complex because it involves assessing the impact of digital technology on various aspects of an organization, society, or individual. Here are some ways to measure digital transformation according to several experts:

1. Digital Maturity Model
   Digital maturity models can be used to assess an organization's digital capabilities, strategy, and culture.
2. Key Performance Indicator (KPI)
   KPIs can be used to track the impact of digital transformation on various aspects of the organization.

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3. Survey and Self-Assessment Tools
   Surveys or self-assessment tools can be used to measure the impact of digital transformation on individuals, organizations or communities.
4. Case Studies and Success Stories
   Real-life examples of digital transformation across industries or sectors can be analyzed to identify best practices, challenges and impacts.
5. Economic and Social Impact Analysis
   The impact of digital transformation on the economy and society can be assessed by analyzing its impact on GDP, employment, education, healthcare and other areas.

DIY Cooperative and SME Agency

Cooperatives are institutions characterized by mutual cooperation and kinship. This cooperative is formed by a group of individuals who participate voluntarily with the aim of meeting the demands of its members. The Cooperative Office is a government institution that seeks to advance micro, small, and medium enterprises in order to empower people who have micro businesses. The Cooperative Office provides convenience in services, guidance, and funding for all members of the community, especially for cooperatives and MSMEs, as well as supporting the improvement of the community's economy. The objectives of the DIY Cooperative and SME Office as a cooperative companion business unit are:

1. Cooperatives get assistance by paying attention to 6 aspects, namely HR (Human Resources), Institutional, Production, Finance, Marketing and Digital Marketing.
2. Improve the services of the DIY Cooperative and SME Agency.
3. Encourage cooperatives under the guidance of the DIY Cooperatives and SMEs Office for digital transformation to become modern cooperatives.

SiBakul Jogja

SiBakul Jogja stands for DIY Cooperative and SME Development Information System. It is a web-based application developed by the Cooperative and SME Agency of Yogyakarta Special Region Province. This application aims to foster and develop cooperatives and SMEs in DIY, both in terms of institutional, production, finance, marketing, and digital marketing. SiBakul Jogja has provided many benefits to cooperatives and MSMEs in DIY. This application has helped increase the capacity and competitiveness of cooperatives and MSMEs in DIY. Based on data from the DIY Cooperatives and SMEs Office, there are around 1,500 cooperatives and 350,000 MSMEs in Yogyakarta registered in SiBakul Jogja. This number has increased from the previous year. The increase in the number of cooperatives and MSMEs registered in SiBakul Jogja shows that this application has been well received by MSME players in DIY. This application has become a means for MSME players to get guidance and business development.

INTERNSHIP METHODS

Sugiyono (2019) explains that population is a general area consisting of objects or subjects that have certain numbers and characteristics, determined by researchers to study and draw conclusions. This internship program has a population limit, namely cooperatives in the DIY cooperative environment and cooperatives in the SME service work area with or without the SiBakul Jogja application. A good sample choice is representative and random. Random means that everyone in the population has an equal chance of being included in the sample.

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Representativeness, on the other hand, is the representation of the sample to the characteristics of the population to a certain degree. Examples of parameters that will be used to collect this information are:

1. Cooperatives - fostered cooperatives located in the working area of the DIY Cooperative and SME Office with an age range of 1 to more than 10 years.
2. Fostered cooperatives that have resources and use digital technology.
3. Cooperatives that already know about the SiBakul Jogja application.

The method used is simple and quantitative, utilizing numerical data processing as a means of presenting data and the basis for analyzing the results of data processing (Waruwu, 2023). The use of quantitative methods is because the components studied are easy to describe, detailed, and can be proven through practice. Meanwhile, the questionnaire method is a fast and efficient way to obtain information in a large amount of time. Primary data, which is intended to be used in this research, is data obtained directly from the initial source; in this research, primary data includes:

1. The level of digital literacy skills and abilities of fostered cooperative resources towards digital applications (SiBakul Jogja).
2. Factors that hinder digital transformation, especially in the use of digital applications (Sibakul Jogja).
3. Information related to what users want regarding digital applications (Sibakul Jogja).

Data is collected through the distribution of closed questionnaires in which questionnaires are distributed to cooperatives in the form of physical sheets and online questionnaires via google form. Data collection through a closed questionnaire method in cooperatives that use the SiBakul Jogja application. After the respondents' responses are collected, they will be scrutinized and evaluated. The popularity of this questionnaire data collection method is based on the level of digital literacy of technology users regarding the technology, in this case the SiBakul Jogja application is intended for cooperatives assisted by the DIY Cooperative and UKM Office. The author uses a closed question format that makes it easy for respondents to identify answers to questions aimed at a specific level of digital literacy with their current level of knowledge. The author has applied to the DIY Office of Cooperatives and Small Enterprises for this employment program. According to the application received, the intern will work as a cooperative assistant assisted by the DIY Office of Cooperatives and Small and Medium Enterprises.

Data processing is carried out by performing descriptive statistics which are the basis for presenting data in such a way that it is easier to read and understand. Simple statistical analysis is carried out by summing up all answer values then dividing them by the number of respondents to determine the percentage of answers. The percentage figure can be included in the analysis of internal reports on internship activities. The results of the answer calculation are then converted into a graph that makes it easy to read and understand. The calculation is intended to examine three areas of digital literacy construction, namely access and technical skills, information and communication, creation and collaboration of the SiBakul Jogja application, then conclusions can be drawn to see which parts still need to be studied and prioritized, and what steps can be taken to increase the speed of digital transformation, especially related to the use of the SiBakul Jogja application.

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ANALYSIS RESULTS

Descriptive Analysis of Frequency and Level of Ability to Use Digital Technology

Table 1. Frequency of Using Digital Technology

Digital Technology	Very Often	Often	Somewhat Frequently	Somewhat Not Often	Not Often	Very Infrequent
Smart Phone	38,00	24,00	21,00	11,00	5,00	1,00
Computer	15,00	29,00	20,00	21,00	9,00	6,00
Laptop	22,00	38,00	21,00	10,00	4,00	5,00
Tablet or Ipad	7,00	26,00	15,00	17,00	15,00	20,00
Wearable device (Smartwatch)	4,00	21,00	15,00	13,00	16,00	31,00
Radio	1,00	16,00	14,00	27,00	23,00	19,00

The survey questionnaire asked respondents to state their level of proficiency with digital devices. As seen in Table 2, respondents' scores were above average for all items.

Table 2. Level of Ability to Use Digital Technology

Digital Technology	Mean
Microsoft Office	4,30
File Sharing (Gdrive, Google Box, etc)	4,11
Photo Editing (Photoshop, Canva, etc)	3,33
Email Services (Gmail, outlook, etc)	4,31
Social Media (FB, Instagram, TikTok, etc)	4,47
ERP System	3,77
SAP	3,74

Descriptive Analysis of Digital Literacy Level Variable Assessment

Table 3. Descriptive Analysis of Digital Competences

No	Statement	Average	Value Standard
1	We find the SiBakul application easy to use	4,71	High
2	We feel that SiBakul App will enable us to get the job done faster	4,71	High
3	We find the SiBakul application easy and flexible to use anytime and anywhere	4,64	High
4	We find the SiBakul application easy to learn	4,72	High
5	The majority of our staff/workers/employees can work better using digital technology	4,69	High
	Total	4,69	High

Based on table 3, it can be concluded that the average survey rating is high, which means that the majority of respondents think that the capacity of digital technology to influence or utilize special effects in digital transformation is significant. The data obtained from the data processing above is that with an assessment of 4,69, respondents think that digital technology is more effective. This is because the assisted cooperatives can submit complaints to the DIY

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Cooperative and SME Office through digital technology, the communication is direct and the reporting is directly to the DIY Cooperative and SME Office customer service system.

Table 4. Descriptive Analysis of Digital Usage

No	Statement	Average	Value Standard
1	The majority of our staff/workers/employees use Microsoft Office standard.	4,65	High
2	The majority of our staff/workers/employees use social media such as Facebook, Instagram, Tiktok and other social media.	4,83	High
3	The majority of our staff/workers/employees are very confident in the information they receive.	4,52	High
4	The majority of our staff/workers/employees can easily get the right information.	4,66	High
5	The majority of our staff/workers/employees are familiar with the organizational information in the company.	4,72	High
	Total	4,68	High

Based on table 4 above, it can be seen that the average score on the variable use of digital applications is 4,68 and in the standard score that has been made, the average score is included in the high indicator.

Table 5. Descriptive Analysis of Digital Transformation

No	Statement	Average	Value Standard
1	The majority of staff/workers/employees with digital technology enable better collaboration with business partners in project work and other activities.	4,57	High
2	The majority of our staff/workers/employees frequently use the internet for business meetings (via Zoom, Gmeet).	4,47	High
3	The majority of our staff/workers/employees are familiar with issues related to digital technology (plagiarism, cybercrime).	4,31	High
4	The majority of our staff/workers/employees have the technical resources to support digital transformation.	4,69	High
5	The majority of our staff/workers/employees are specialized in IT (Information & Technology).	4,59	High
	Total	4,51	High

Based on table 5 above, it can be seen that the average score on the digital application transformation indicator is 4,51 and in the standard score that has been made, the average score is a high indicator.

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Discussion

The challenges faced by cooperatives and the reasons why digital transformation of Sibakul Jogja is still slow according to data from PLUT KUMKM DIY are:

1. Resource Competency in Application Usage
   As the background of the problem shows, assisted cooperatives more often visit the service center office to report problems or report important documents. The questionnaire results show that the main obstacle is related to the ability to use the digital application (Sibakul Jogja). One of the things that many people complain about is the resources owned by cooperatives. If cooperative resources are not educated, there will be many limitations in using the application.
2. People who are not familiar with the use of applications
   One of the reasons for the slow digital transformation of Sibakul Jogja application users is that people who use the Sibakul Jogja application in the Yogyakarta Special Region Province area are still not familiar and accustomed to using the Sibakul Jogja application. These obstacles make cooperatives prefer to use conventional systems such as bookkeeping and quarterly reporting by writing in books or in ending obstacles preferring to visit the DIY Province Cooperative and UKM Office directly.
3. Demographics of Underdeveloped Communities
   Many of the assisted companies are located in areas that are not technologically advanced, so few people use apps.

According to the analysis of the survey results above, the development of the Sibakul Jogja application into digital is an innovation for DISKOP UKM DIY that will be very profitable if it continues to be developed thoroughly. The results show that most users of the application have a bachelor's degree and above, and the majority of adults are over 46 years old. a person or company that has a manager position. The next analysis of the digital transformation objects that can be taken from the questionnaire results is that each cooperative has various problems, especially in cooperative resources, which require them to get more frequent educational socialization from the DIY Cooperative and UKM Office. This is possible because the Sibakul Jogja application is still not familiar to the assisted cooperatives. However, after the problem is handled and the cooperative feels satisfaction in using the application so that the cooperative thinks that the Sibakul Jogja application is very helpful for cooperatives in getting easier and faster services from the DIY Cooperative and UKM Office.

From the results of the questionnaire, it can also be assessed that cooperatives assess digital transformation, especially in the Sibakul Jogja application, as a breakthrough or innovation that is very beneficial for fostered cooperatives and becomes an application that is often used by the community. The last analysis uses the basis of construct assessment indicators in the digital literacy level approach. There are 3 perspectives built, namely the digital capability perspective, the digital usage perspective, and finally the digital transformation perspective. From the perspective of digital use, it gets a high score level but there are still many application users who find it difficult to use the Sibakul Jogja application. The Sibakul Jogja application is not well known by assisted cooperatives, so many face difficulties, especially for cooperatives that do not really understand technology. Because of this problem, the Sibakul Jogja application cannot be fully utilized.

Regarding the point of view of digital transformation, especially users of the Sibakul Jogja application, basically the fostered cooperatives welcome the innovation of the Sibakul Jogja application initiated by DISKOP UKM DIY. This application is considered a positive breakthrough that improves the quality of service of the office to the fostered cooperatives. Based on the questionnaire results, the majority of fostered cooperatives want Sibakul Jogja to

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be the main application in applying for services from the DIY Cooperatives and SMEs Office. This shows the high level of assessment of the digital transformation realized through the application. Overall, digital transformation through the Sibakul Jogja application has brought positive changes in the relationship between the DIY Cooperatives and SMEs Office and the assisted cooperatives. According to the head of the cooperative and small and medium enterprise development division of the DIY DISKOP UKM, this application is clear evidence of the agency's commitment to improving service quality and supporting the progress of cooperatives in DIY.

CONCLUSION

In writing the internship activity report, it can be concluded that the DIY Cooperatives and SMEs Office has launched digital transformation innovations through the Sibakul Jogja application since 2019. The app has evolved to meet the needs of cooperatives in terms of managing issues and collecting collaborative data. Efforts continue to be made to increase the number of app users. Using a digital literacy level approach, we seek to explore the elements that influence the slow digital transformation of the Sibakul Jogja app in this internship report. The level of digital literacy is built with the first construct, namely the digital competency point of view which includes skills, concepts, approaches and behaviors, the second point of view is digital use which refers to the application of digital competencies related to certain contexts and the top or third is digital transformation which requires creativity and innovation in the digital world. The three constructs are then reduced to evaluation indicators which are used as the basis for generating questionnaire questions. The results of the questionnaire evaluation are the basis for analysis in writing the internship activity report.

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