

## Utilization Of Cloud Accounting During the Covid-19 Pandemic for Owners and Customers in Cooperative Business

Mohammad Ghofirin<sup>1</sup>, Niken Savitri Primasari<sup>2</sup>

<sup>12</sup>Universitas Nahdlatul Ulama Surabaya, Surabaya, Indonesia

E-mail: [ghofie@unusa.ac.id](mailto:ghofie@unusa.ac.id)

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### Abstract

All organizations including the Republic of Indonesia Employee Cooperative (KPRI) business unit are dealing with changes in the industrial era 4.0 and covid-19. The implication of both is the use of digital technology for management activities, including financial management. The Surabaya City Government (Pemkot) KPRI is unique compared to other KPRI in that it is the only KPRI in this city that uses a cloud accounting system, and the beginning of its implementation took place in the Covid-19 era. This study aims to explore the use of cloud accounting in the perspective of cooperative members who have multiple roles in the organization. This research was conducted with a qualitative approach with four types of application users as resource persons. The results showed that the application utilization was driven more by hedonic motivational factors and price values. In addition, the use of the application is more for optimizing members as owners and not as cooperative customers.

**Keywords:** *cloud accounting, members, financial reports, cooperatives, application users*

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## 1. Introduction

### 1.1. Background of Study

KPRI in Surabaya is faced with the issue of change in the industrial era 4.0 and covid-19. Frey & Osborne (2018) mention several accounting professions that are most affected by technological developments in the 4.0 era, including 1) Bookkeeping, Accounting, Auditing Clerks; 2) Budget Analysts; and 3) Accountants and Auditors are professions that experience

a high category of automation (dalam Sumarna, 2020). ). This is in line with the *Bangladesh Association of Software and Information Services* on accounting software survey, which shows that 47% of the Information Technology (IT) industry uses accounting software (Accounting & Finance Binus University, 20 November 2019). Furthermore, due to the covid-19 pandemic, almost all business units are forced to change the business landscape and the way teams work, gaining access to our financial data becomes more complex.

The Surabaya City Government KPRI (Surabaya City Government) is one of tens of thousands of state employee cooperatives that have a cloud accounting system. Cloud accounting at the Surabaya City Government KPRI is not purely about financial information but is integrated with customer service. One reason is the dual role of members, namely as owners and customers. The first objective is to provide financial transparency to members. The implementation coincided with the Covid-19 incident. All of this is unique for KPRI Surabaya City Government compared to KPRI in general. This phenomenon is unique because KPRI in general is still limited to running an accounting system according to accounting standards (Ghofirin dan Khusna, 2017) without facilitation of digital applications. On the other hand, the potential for fraud still exists in the KPRI environment although it is small (Ghofirin & Algristian, 2019). The cloud-based accounting system or what is often called cloud accounting really supports KPRI's business and financial sustainability in the pandemic era. Cloud accounting can reduce costs, update information in real-time, accessibility of accounting information, security of accounting information, wide availability, repair as soon as possible, efficiency, and automatic backup and recovery of data (Khanom, 2017). *Cloud accounting* itself is a cloud computing-based digital accounting (KPMG, 2017: 11).

This study aims to explore how the use of cloud accounting applications at KPRI Surabaya in the perspective of owners and customers. The lessons learned from KPRI are input for other cooperatives in addressing the existence of cloud accounting for their organizations.

## **1.2. Financial Statement for Cooperative Members**

Stakeholder theory is the basis for using this "Financial Report" application. This theory generally explains that companies operate not only for their own interests but to provide benefits to their stakeholders. There are five stakeholder groups, (1) customers, (2) employees, (3) community, (4) investors, and (5) suppliers (Cummings & Patel, 2009). Miles (2017) classifies stakeholders more inclusively where stakeholders are groups, individuals, or entities and can be human or non-human or even anyone or anything. Companies need to manage stakeholders and this action is empirically proven to have a positive impact on the company's financial performance (Tse, 2011).

Cooperative members, as owners, have an interest in financial information for their business. Khatun et al., (2016) stated that company owners view the importance of all components of financial statements, except income statements and environment reports. Studies of company data documentation and interviews with Australian investors show that the existence of financial statements remains important and relevant in investor decision making (Davern et al., 2018). Other studies also show that the company's financial statements are still relevant to the needs of investors (Monash University, 2018). Accounting reports can increase investment efficiency, reduce information asymmetry, and improve monitoring (Shakespeare, 2020). Reports that have an influence on decision making are quality financial reports (Amahalu & Chinyere, 2020). In the case of cooperatives, the use of applications can facilitate report accountability (Rahayu et al., 2018). In addition, the Financial Reporting Timeliness of cooperatives is influenced by the special characteristics of

this organization (Susandya, 2018) and the accounting information system it has (Mardi et al., 2020).

### **1.3. Cloud Accounting in Financial Statements**

Digital accounting is accounting with computing and network technology (Deshmukh, 2005: 1-2). This definition is in line with that proposed by (Pacific Crest Group, n.d.) where digital accounting is the formation, representation, and transmission of financial data in electronic format (computer and software accounting). Forms of digital accounting include accounting documents in the form of text-based such as invoices/bills, checks, notes and non-text-based such as images, diagrams, and maps (Tsai, 2007). There are seven indicators that mark an accounting system that can be said to have become digital accounting. The seven indicators include: paperless accounting, Interfaces to (external) systems, data quality, process automation, system uniformity, integrated consolidation system, real time reporting, creation of transparency, big data analysis, tools for visualization, and cloud computing (KPMG, 2017: 11).

Cloud computing, which is one of eleven digital accounting indicators, has become an important issue in society. The form of cloud computing implementation in accounting is often known as cloud accounting. Cloud accounting is an accounting trend with remote servers where data will be further processed and will be returned to the user supported by the internet network (Rao et al., 2017; Dimitriu & Matei, 2015). The utilization of cloud accounting technology can refer to all theories of acceptance of technology, both Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Rondan-Cataluña et al., 2015).

the use of cloud accounting provides benefits for its users. Aini et al. (2019) concludes the literature study of several studies that the use of cloud accounting in universities is able to present reports in real-time and is effective and efficient. Rahardja et al. (2019) found the ease of the bookkeeping process as a benefit and the lack of features for student users as a weakness. Ma (2015) also describes the advantages of cloud accounting and the disadvantages of the system according to the perceptions of several companies studied. The advantages of the system include flexibility, convenience, and security.

## **2. Research Method**

The research was conducted with an approach because it found the user experience of the application in depth. This experience becomes a form of application formulation that can be shared with other people in the Surabaya City Government KPRI and other cooperatives. Research context: Surabaya City Government KPRI is the only cooperative that has implemented a cloud accounting system. The system is smooth with the COOPERATIVE REPORT APPLICATION. Its implementation coincides with the COVID-19 event, which is 2019. The most important users are members who have multiple roles - as owners and customers of the cooperative business. The results of observations and interviews with managers explain that there are four main types of application users. Furthermore, the four types of users are represented by R1, R2, R3, R4,

Participant: KPRI Surabaya City Government does have 5,164 members but there are only 4 types of general application users. The four research respondents who represent the four types of users are as follows: (1) Members who do not use the application and do not borrow (R1); (2) Members who do not use the application but borrow (R2); (3) Members who use the app but don't borrow (R3); and (4) Members who use the application and borrow (R4).

Data collection techniques in this study include interviews, observation, and documentation. Interviews are used to collect data on the advantages and disadvantages of cloud accounting systems. Furthermore, observation is used mainly to collect data about cloud accounting system services. Finally, documentation is used primarily to collect data about cloud accounting system deployments. However, in this qualitative study, the three techniques became instruments for triangulation of research data. That is, to explore the advantages and disadvantages of the system, observation and documentation techniques are used as well as interview techniques.

Data analysis and validation techniques: Data analysis techniques in the form of qualitative data analysis techniques Miles and Huberman models. This technique consists of data reduction (data reduction), data display (data presentation), and conclusion/verification. The data validation uses triangulation of data sources and data collection techniques.

### 3. Result and Discussion

#### 3.1. Results

The use of the “cooperative report” application by cooperative members can be mapped as follows.

<b>TRANSACTION ACTIVITY</b>	<p><b>Not using but borrowing (R3)</b></p> <ul style="list-style-type: none"> <li>- Usage: Don't use it because it's often to cooperatives and smartphones don't support it</li> <li>- Take advantage of features (checking savings, providing convenience, providing flexibility of place and time)</li> </ul>	<p><b>Using and Borrowing (R4)</b></p> <ul style="list-style-type: none"> <li>- Usage: No problems in use</li> <li>- Benefits: Using the deposit, loan, and loan application features</li> </ul>
	<p><b>Not Using and Not Borrowing (R1)</b></p> <ul style="list-style-type: none"> <li>- Usage: Don't use it because the smartphone you own doesn't support it</li> <li>- Expected Benefits: Expect application features (check deposits, guarantee transparency, provide flexibility of use, apply for loans)</li> </ul>	<p><b>Not Using and Not Borrowing (R1)</b></p> <ul style="list-style-type: none"> <li>- Usage: Don't use it because the smartphone you own doesn't support it</li> <li>- Expected Benefits: Expect application features (check deposits, guarantee transparency, provide flexibility of use, apply for loans)</li> </ul>

#### APPLICATION USAGE

**Picture 1. Map of Utilization of “Financial Reports” Application**

Members as owners also need to evaluate the general impact of using the app on the financial performance of their business. Cooperative business is an active business of KPRI that generates income for cooperatives. There are other forms of income that are not KPRI's active business, namely in the form of equity participation in companies or other cooperatives. The following is the business development and income of the Surabaya City Government KPRI during the COVID-19 pandemic (2019 – 2020).

**Table 1. Surabaya City Government KPRI Business Development 2019 - 2020**

Business	Value		Change	
	2019	2020	Up/Down	%
Saving and loans	Rp 3.171.871.424,00	Rp4.002.571.286,00	Up	20,75
Electronic things	Rp. 370.240.646,00	Rp152.181.822,00	Down	41,10
Foto copy	RP. 221.210.223	Rp 100.412.302	Down	45,39
Equility Capital in the PT Pakuwon Jati		Rp20.000.000,00	-	-
Remaining Operating Results (SHU)	Rp152.572.115,00	Rpl.206.281.569,00	Up	4,65

Sumber: LPJ KPRI Pemkot Surabaya Tahun Buku 2019 - 2020

Table 1 shows that the main business growth of KPRI Surabaya City Government, namely savings and loan units still have a positive trend. The other three side businesses experienced a significant decline during the COVID-19 pandemic.

### 3.2. Discussion

The application utilization map image shows that R1 and R2 do not use the application because the smartphone used does not support it. In addition, R2 also often goes to cooperatives so that he feels he doesn't need an application. This indicates that the use of the application is driven by hedonic motivation and price value (Rondan-Cataluña et al., 2015). R3 and R4 who use the application do not experience these problems.

Utilization of applications for ownership purposes is more dominant in all respondents. R1 and R2 hope to be able to check their savings when using this app in the future. R3 and R4 claimed to use the application to check their savings. This is evidence that financial statements are still considered important and relevant to the needs of business owners (Davern et al., 2018; Monash University, 2018) to improve monitoring (Shakespeare, 2020). Some respondents also stated that there are applications to increase financial transparency (Rahayu et al., 2018). Further data shows that cooperatives can still increase their profits even in the era of the covid-19 pandemic. However, the statements of R3, R4, and cooperative staff explained that loan services were not yet available through the application. This means that the increase in the performance of the savings and loan business is not supported by the application. This is different from Tse's (2011) statement that the existence of an application for owners has a positive impact on the financial performance of cooperatives.

From the customer side, respondents expect this application to support their loan application transactions. The development of the loan feature in the "COOPERATIVE REPORT" application will help increase member satisfaction as customers. Some digital applications are able to create customer satisfaction (Pradiatiningtyas et al., 2020; H & Winston, 2021)

### 4. Conclusion

The use of cloud accounting at the Surabaya City Government KPRI most optimally helps members in carrying out their roles as members. This application still needs to be

developed to help optimize the role of members as customers. This is because the customers of the cooperative are members of the cooperative, not the general public. The sustainability of the cooperative's business is very dependent on the role of members as customers. In addition, application development is possible to increase motivation and price value which is the primary internal determinant.

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