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Digital Transformation in Improving the Quality of Member Services at KPRI Makassar State University

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Abstract

Digital transformation has become both a challenge and a strategic necessity for cooperatives in improving the quality of member services in the era of information technology. KPRI Makassar State University, as an employee cooperative within a university environment, faces service challenges related to the limitations of conventional administration, suboptimal access to information, and increasing member demands for fast, transparent, and digital-based services. This study aims to analyze the implementation of digital transformation in improving the quality of member services at KPRI Makassar State University and to identify its impacts and implementation obstacles. A qualitative case study design was employed. Data were collected through in-depth interviews, observations, and documentation involving cooperative administrators, administrative staff, and cooperative members selected through purposive sampling. Data were analyzed using the interactive model of Miles, Huberman, and Saldaña, consisting of data condensation, data display, and conclusion drawing. The findings show that digital transformation improves the quality of member services through administrative digitalization, online service systems, digital payments, and faster, more transparent technology-based communication. Digital transformation positively contributes to the

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service quality dimensions of reliability, responsiveness, assurance, empathy, and tangibles. However, the study also identifies obstacles related to members' limited digital literacy and insufficient human resources in information technology. This study concludes that digital transformation is an important strategy for modernizing cooperative services. The findings contribute to the literature on cooperative service innovation and provide practical implications for strengthening digital competencies, developing technology-based service systems, and implementing sustainable cooperative digitalization policies to increase member satisfaction and loyalty.

Keywords: Cooperative Digitalization; Digital Transformation; KPRI UNM; Member Services; Service Quality

INTRODUCTION

Digital transformation has become a strategic agenda in the development of modern organizations, including in the cooperative sector(Febryansyah, 2021; Samsiyah et al., 2025). The development of information technology, the increasing need for digital-based services, and changes in user behavior are encouraging cooperatives to innovate services that are faster, more transparent, and more adaptive. In the context of employee cooperatives in higher education, digitalization is not only related to the use of administrative technology, but also includes changes in service interaction patterns for members through application-based systems, digital payments, online services, and real-time management of member information(Bhimani & Willcocks, 2014; Reni Rahmawati et al., 2025). This change is important because service quality is one of the main factors in increasing the satisfaction and loyalty of cooperative members.

As one of the employee cooperatives within the university environment, Makassar State University has great potential in developing a digital-based cooperative model through the Republic of Indonesia Employee Cooperative of Makassar State University. KPRI UNM faces increasingly complex service challenges as members' expectations for fast, accessible, accurate, and transparent services increase. On the other hand, most cooperatives in Indonesia still face obstacles in implementing digital transformation, such as limited human resources, low digital literacy, and suboptimal integration of technology-based service systems. This condition means that the quality of cooperative services is not yet fully capable of meeting the needs of members effectively.

Empirically, a number of previous studies show that service quality has a significant influence on cooperative member satisfaction. Research by (Binti Asbaruna et al., 2026)that service quality dimensions such as reliability, responsiveness, assurance, empathy, and tangibles influence the level of satisfaction of cooperative members in Jakarta. Another study by (Shobirin & Muhammad, 2024)also proved that the quality of savings and loan cooperative services has a positive effect on member satisfaction. In addition, research by (Umah & Kumalasari, 2023) shows that productivity and service quality are important factors in increasing cooperative member satisfaction.

However, previous studies still tend to focus on conventional service quality aspects and have not integrated the digital transformation perspective as a strategic variable in improving the quality of service for cooperative members, especially in employee cooperatives in higher education environments. Research related to the digitalization of cooperatives has focused more on aspects of governance and organizational sustainability in general without examining in depth the impact of digital transformation on the quality of member services(Agustiana & Pratama, 2026; Ancín et al., 2022; Bigliardi et al., 2022). In addition, the research objects on university cooperatives are still relatively limited, so that not many empirical models have been found that explain the relationship between digital transformation and the quality of member services at university cooperatives in Indonesia.

This research gap indicates the need for research that specifically examines how digital transformation can improve the quality of member services at KPRI, Makassar State University. This research is important because university cooperatives have members who are relatively more adaptive to technology compared to other conventional cooperatives. In addition, a knowledge-based academic environment enables the implementation of more integrated digital innovations in cooperative service systems.

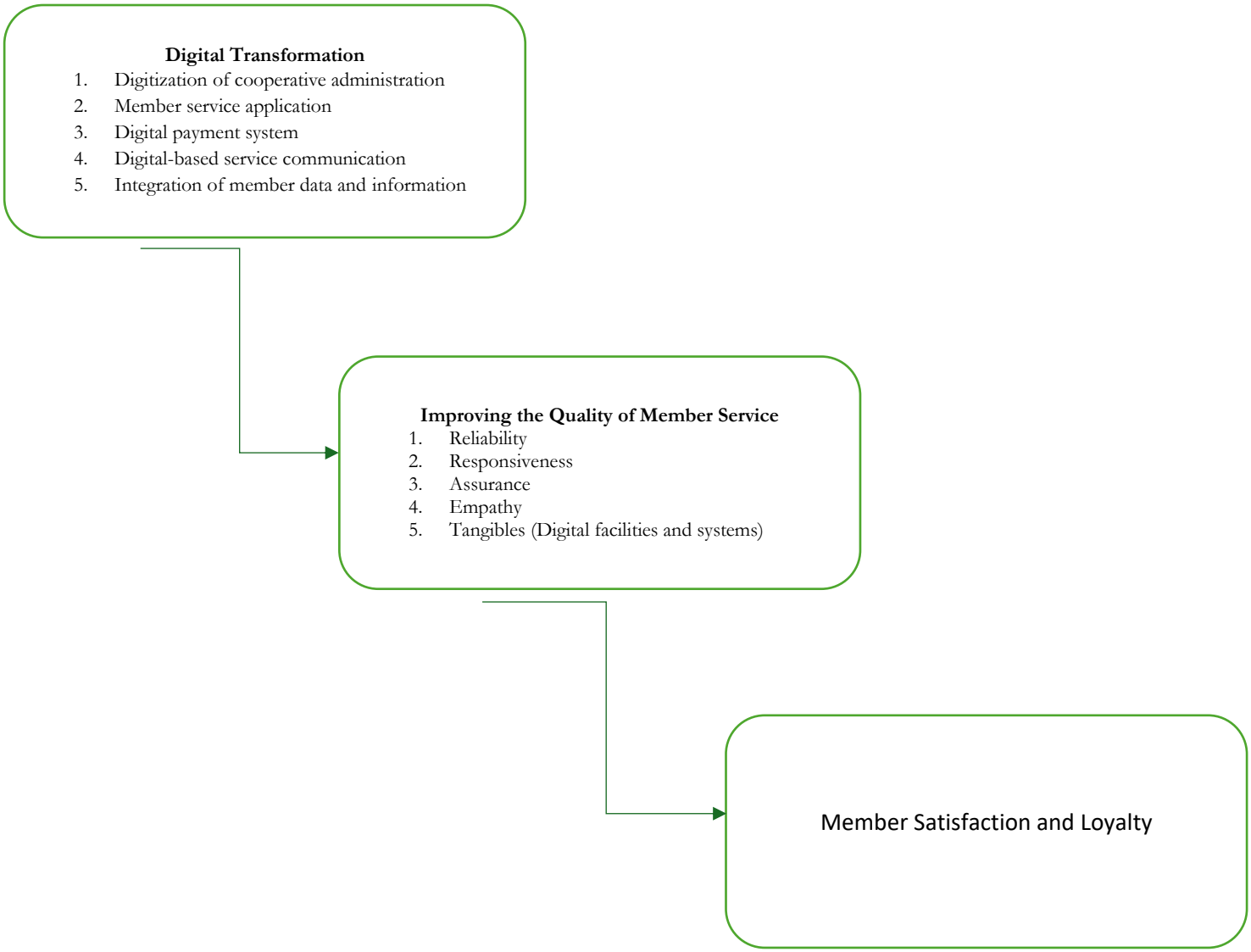
The novelty of this research lies in the development of a study of digital transformation of cooperatives in the context of university employee cooperatives by placing the quality of member services as the main focus of the research. This research also integrates the perspectives of digital transformation and service quality in the modern cooperative management model which has not been widely studied in previous research, especially in KPRI in the state university environment. Thus, this research is expected to provide theoretical contributions in the development of digital-based cooperative management science as well as practical contributions for cooperative managers in designing technology-based service strategies.

This research focuses on how digital transformation can improve the quality of member services at KPRI, Makassar State University(Farida & Rofiq, 2025; Hermawan et al., 2025). Digital transformation is understood as the process of changing the cooperative service system through the use of digital technology in operational, administrative, communication, and member service activities(Ajates, 2020; Santos et al., 2024). The implementation of digital transformation in cooperatives is expected to be able to create services that are more effective, efficient, transparent, fast, and easily accessible to cooperative members.

In this study, digital transformation is the main variable that influences the quality of cooperative member services(Hinings et al., 2018; Kraus et al., 2021). Digital transformation is realized through several indicators, namely digitalization of cooperative administration, use of member service applications, digital payment systems, technology-based service communications, and online integration of member information. The implementation of these aspects is believed to be able to accelerate the service process and increase member comfort in accessing cooperative services.

Meanwhile, the quality of member service is understood based on the SERVQUAL theory developed by Parasuraman, Zeithaml, and Berry, which includes reliability (service reliability), responsiveness (responsiveness), assurance (service guarantee), empathy (concern), and tangibles (physical evidence of service)(Parasuraman et al., 1988). In the context of digital cooperatives, the tangible dimension is not only in the form of physical facilities, but also includes the quality of the digital system, application appearance, and ease of use of service technology(Hermawan et al., 2025; Vial, 2019).

The conceptual framework of this research explains that the better the implementation of digital transformation at KPRI Makassar State University, the better the quality of service to cooperative members. Service digitalization enables members to obtain services quickly, transparently, and flexibly without being limited by space and time. In addition, digital transformation also supports increased data accuracy, communication effectiveness, and efficiency of cooperative administrative services, thus impacting member satisfaction(Ajates, 2020; Bhimani, 2020; Bigliardi et al., 2022; Kraus et al., 2021; Oudgou, 2021; Verhoef et al., 2021; Zulkifli & Wirawan, 2025).



Based on this conceptual framework, this study emphasizes that digital transformation not only functions as a technological innovation, but also as a cooperative organization strategy in improving the quality of member services in a sustainable manner. Thus, the success of digital transformation at KPRI Makassar State University is expected to be able to create a modern cooperative service system that is more adaptive to technological developments and member needs in the digital era.

Theoretically, this research is based on the Digital Transformation Theory which explains that the use of digital technology can increase organizational effectiveness through process efficiency, information integration, and improved service quality. (Ancín et al., 2022; Hinings et al., 2018; Kraus et al., 2021; Verhoef et al., 2021) explains that digital transformation changes organizational interaction patterns to be more flexible, faster, and

based on information networks. In addition, this study also uses the service quality theory (Service Quality Theory) developed by (Parasuraman et al., 1988)through the SERVQUAL concept which includes reliability, responsiveness, assurance, empathy, and tangibles as the main indicators of service quality. This theoretical approach is relevant to explain how the implementation of digital systems can improve the quality of cooperative service interactions with members.

Based on the description, the focus of this research is to analyze the implementation of digital transformation at KPRI Makassar State University, analyze the influence of digital transformation on improving the quality of member services, and formulate a digital-based cooperative service model that is effective in increasing the satisfaction and participation of cooperative members. This research is expected to be the basis for developing a digitalization strategy for university cooperatives that is sustainable and adaptive to technological developments in the Society 5.0 era.

METHODS

This research uses a qualitative approach with a case study research type. A qualitative approach was chosen because the research aims to deeply understand the digital transformation process in improving the quality of member services at KPRI, Makassar State University. The case study method is used to explore the phenomenon of cooperative digitalization contextually based on experiences, perceptions, and service practices that actually occur in the cooperative environment. This approach is relevant for use in research on cooperative digital transformation because it is able to describe organizational dynamics, work culture, and service changes comprehensively.

The research design used is a qualitative descriptive design with a naturalistic approach. The research was conducted directly in the natural conditions of the organization without manipulating the research variables. Researchers act as the main instrument that conducts observations, interviews, data interpretation, and analysis of the digital transformation phenomenon of cooperative services. This design was chosen because it is able to produce a deep understanding of the implementation of digitalization of member services, obstacles to digital transformation, and member responses to changes in technology-based cooperative service systems.

The research participants were determined using a purposive sampling technique by considering the informant's direct involvement in the implementation of digital transformation at KPRI, Makassar State University. The research participants consisted of cooperative administrators, digital service system managers, cooperative administration staff, and active cooperative members. Cooperative administrators were selected because they have a role in making digital service policy, while cooperative members were selected to obtain information regarding their experiences and perceptions of the quality of digital-based services. The number of participants in this study is estimated at 15–20 people or adjusted to the level of data saturation. The saturation approach is used to ensure that the data obtained is able to describe the research phenomenon comprehensively.

The main instrument in this research is the researcher himself (human instrument). In its implementation, researchers used semi-structured interview guidelines, observation sheets, and documentation as supporting research instruments. Interview guidelines were used to gather information regarding the digital transformation process, service effectiveness, member satisfaction, and obstacles to implementing cooperative digitalization. Observations were conducted to directly observe digital-based service activities in cooperatives, such as the use of service applications, digital administration systems, and member service interactions. Meanwhile, documentation is used to obtain supporting data in the form of cooperative reports, digital archives, organizational policies, and member service data. The use of instrument triangulation was carried out to increase the validity and credibility of research data.

Data collection techniques in this study were carried out through in-depth interviews, participant observation, and documentation studies. In-depth interviews were conducted directly with informants to gain an understanding of their experiences and perceptions of the quality of cooperative digital services. Participatory observation was conducted by directly observing the member service process to understand the implementation of digital transformation in the cooperative's operational activities. In addition, documentation studies were conducted on organizational documents related to digitalization policies, service systems, and cooperative activity reports. Triangulation techniques of sources, techniques, and time are used to ensure the validity of research data so that research results have a high level of validity.

Data analysis in this study uses the interactive analysis model of Miles, Huberman, and Saldaña which consists of data reduction, data presentation, and drawing conclusions. The data reduction stage is carried out by selecting, simplifying, and grouping data from interviews, observations, and documentation based on the research focus. The data presentation stage is carried out in the form of descriptive narratives, data matrices, and categorization of research themes to facilitate data interpretation. Furthermore, the conclusion drawing stage is carried out continuously throughout the research process by identifying patterns, relationships, and the meaning of the implementation of digital transformation on the quality of cooperative member services. Thematic analysis was used to identify key themes related to the effectiveness of digital services, service transparency, ease of service access, and cooperative member satisfaction.

To maintain the validity of the data, this study uses credibility, transferability, dependability, and confirmability tests. Data credibility is carried out through source triangulation, technical triangulation, member checks, and extended observation time. Transferability is achieved by presenting a detailed description of the research so that the research results can be applied to similar contexts. Dependability is carried out through auditing the research process, while confirmability is carried out by ensuring that all research findings come from field data and not the researcher's subjectivity. This approach is considered important in qualitative research on digital transformation because it is able to produce findings that are more objective, systematic, and scientifically accountable.

RESULTS

The results of the study show that the digital transformation implemented at KPRI Makassar State University has had a significant impact on improving the quality of member services. The implementation of service digitalization is carried out through the use of digital-based administration systems, online member information services, electronic payments, and the use of digital communication media such as WhatsApp and cooperative service applications. These changes can speed up the service process, increase information transparency, and make it easier for members to access cooperative services without having to come directly to the cooperative office.

Based on the results of interviews with cooperative administrators, digital transformation has begun to be implemented gradually since the increasing need for more

effective and efficient services. Before digitalization was implemented, most services were still carried out manually, resulting in frequent delays in administrative processes, recording errors, and limited access to information for members. After the digital system was implemented, cooperative administrators were able to manage member data in a more integrated and responsive manner. This finding is in line with research on the transformation of cooperative digital communications, which states that digitalization can increase service effectiveness and support improved cooperative performance.

Research has found that digitalization of cooperative administration can increase the effectiveness of member services, especially in terms of service speed and information accuracy. Cooperative members stated that the process of applying for loans, checking savings, and paying installments has become easier because it can be done through a digital system and online communication.

Percentage of Member Perceptions of KPRI UNM Digital Services



The data shows that the service speed indicator received the highest rating from cooperative members. This indicates that the implementation of digital technology has succeeded in significantly reducing the time spent on cooperative administrative services. Previous research also explains that good service quality has a positive influence on the participation and satisfaction of cooperative members.

In addition, the use of digital systems provides easy access to services for members who have limited time to come directly to the cooperative. Members can obtain information about savings, loans, and cooperative transactions more quickly through digital media. This condition shows that digital transformation not only increases organizational efficiency, but also strengthens the service relationship between cooperatives and members.

The following research findings show that digital transformation increases the transparency of cooperative services. The digital system allows members to gain open access to information regarding transactions, financial reports, and the status of

cooperative services. Cooperative administrators stated that digitalization of administration was able to minimize recording errors and increase accountability in cooperative management.

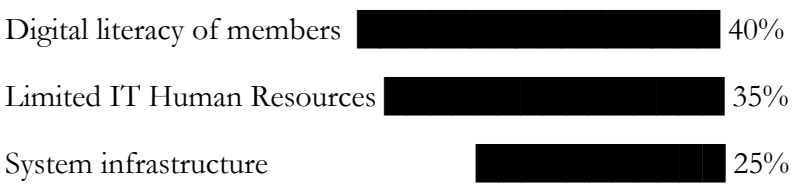
Service Aspects	Before Digitalization	After Digitalization
Access to Member Information	Limited	Fast and Real-Time
Administrative Process	Manual	Digitally Integrated
Transaction Transparency	Low	High
Service Speed	Slow	Faster
Member Data Monitoring	Difficult	Easy to Monitor

The results of this study strengthen the findings of research on the digital transformation of cooperative financial reports, which states that digitalization can increase the transparency and accountability of cooperative organizations. In addition, the implementation of digital services also increases member trust in cooperative management because service information can be accessed more openly and accurately.

Although digital transformation has a positive impact on service quality, this study also found several obstacles in its implementation. The main obstacles found were limited digital literacy among some cooperative members, lack of technology training for administrators, and limited infrastructure of the cooperative's digital system.

Interview results show that elderly members still experience difficulties in using cooperative service applications. In addition, cooperative administrators also face challenges in maintaining digital systems and adapting to technological changes. This finding is in line with previous research which stated that digital transformation of cooperatives often faces technical obstacles, limited human resources, and organizational readiness to adopt new technologies.

Barriers to KPRI UNM's Digital Transformation



The data shows that members' digital literacy is the biggest obstacle in implementing digital-based cooperative services. Therefore, a continuous digital training program is needed so that all members are able to utilize digital cooperative services optimally.

Overall, this study found that digital transformation has positive implications for improving the quality of member services at KPRI, Makassar State University. Service digitalization can increase reliability through more accurate service, responsiveness through faster service, assurance through information transparency, empathy through more flexible communication, and tangibles through modernization of the cooperative service system.

The findings of this study support the theory of digital transformation which explains that the use of technology can increase organizational effectiveness and service quality. In addition, the research results also strengthen the SERVQUAL theory which places service quality as the main factor in increasing the satisfaction of organizational members.

Thus, digital transformation at KPRI Makassar State University is not only a form of organizational technological innovation, but also a strategy to strengthen the quality of member services in facing the development of service needs in the digital era.

DISCUSSION

The results of the study show that digital transformation at KPRI Makassar State University has made a significant contribution to improving the quality of cooperative member services. The implementation of administrative digitalization, the use of digital communication media, electronic payment systems, and member data integration have proven to be able to increase the effectiveness and efficiency of cooperative services. These findings indicate that digital transformation not only functions as a technological tool, but also as an organizational strategy in building services that are more adaptive to member needs(Hermawan et al., 2025).

Improvements in service quality can be seen in the dimensions of reliability, responsiveness, assurance, empathy, and tangibles. In terms of reliability, the digital system is able to increase data accuracy and minimize cooperative administrative errors. In terms of responsiveness, service is faster because members can access information and services without having to come directly to the cooperative office(Umah & Kumalasari, 2023). Meanwhile, the assurance dimension increases through transparency of transaction information and transparency of digital-based services. This study also found that application-based communication and social media increase empathy aspects because

cooperative administrators can provide more flexible and personal service responses to members(Ayu et al., 2025).

In addition, digitalization of services also increases the modernization of cooperative facilities in the tangible dimension. Members no longer only assess the quality of service from the physical facilities of the cooperative office, but also from the quality of the digital system, ease of application, and accessibility of online services. This shows a paradigm shift in cooperative services from conventional systems to digital technology-based services(Shobirin & Muhammad, 2024).

The findings of this study are in line with research which states that digital transformation can increase the effectiveness of cooperative organizations by increasing service efficiency and the quality of organizational communication. Research on digital cooperative transformation explains that the use of digital technology can accelerate administrative processes, expand service access, and increase the participation of cooperative members. This research also supports the results of previous research which found that service quality has a positive effect on the satisfaction and loyalty of cooperative members. The quality of digital-based services is considered capable of providing a faster, more accurate, and more transparent service experience, thereby increasing member trust in the cooperative.

However, this research has differences with previous research. Most previous studies have focused more on general savings and loan cooperatives or cooperative-based MSMEs, while this study specifically examines digital transformation in university employee cooperatives. In addition, previous studies generally position digitalization only as an organizational administration tool, while this study positions digital transformation as a strategy to improve the quality of member services as a whole. This study also found that the success of cooperative digital transformation is not only influenced by technology, but also by the readiness of human resources and digital literacy of cooperative members. This finding strengthens research on organizational digital readiness which states that the success of an organization's digital transformation is greatly influenced by human adaptability to technological change(Febryansyah, 2021; Samsiyah et al., 2025).

Theoretically, this research strengthens the Digital Transformation theory which explains that digital technology is able to increase organizational effectiveness through work process efficiency, information integration, and improved service quality. This study

also expands the implementation of SERVQUAL theory in the context of digital cooperatives by showing that service quality is no longer only measured from direct interactions, but also from the quality of the digital service system used by the organization. In addition, this study provides a new contribution to the development of modern cooperative management science by integrating the concept of digital transformation and member service quality in the context of university cooperatives.

Practically, the results of this study can be a basis for the management of KPRI Makassar State University in designing a more effective and sustainable digital-based service strategy. Cooperative administrators need to improve the development of member service applications, strengthen cooperative information systems, and provide digital literacy training for members and cooperative managers. This research also provides implications for the government and cooperative institutions that digital transformation needs to be supported through strengthening technological infrastructure, increasing human resource competencies, and more integrated cooperative digitalization policies.

This study has several limitations. First, the research was only conducted on one research object, namely KPRI Makassar State University, so the research results cannot be generalized to all cooperatives in Indonesia. Second, the research uses a qualitative approach so that the research results emphasize more on in-depth understanding of the phenomenon rather than measuring the relationship between variables statistically. Third, this research is still limited to the aspect of member services and has not examined more broadly the influence of digital transformation on cooperative financial performance, organizational productivity, or cooperative competitiveness in the digital economy era. In addition, very rapid technological developments allow for changes in cooperative service systems in a relatively short time, so that ongoing further research is required.

CONCLUSION

This study shows that digital transformation at KPRI Makassar State University plays an important role in improving the quality of service to cooperative members. The implementation of administrative digitalization, online service systems, digital payments, technology-based communications, and member data integration can create faster, more effective, transparent, and easily accessible services. The research results show that digital transformation has a positive impact on all dimensions of service quality, namely reliability,

responsiveness, assurance, empathy, and tangibles. Service digitalization also increases member satisfaction because the service process becomes more practical, accurate, and flexible according to member needs in the digital era. In addition to providing positive impacts, this study also found several obstacles in implementing digital transformation of cooperatives, such as limited digital literacy of members, lack of human resources with information technology competencies, and limitations in the cooperative's digital infrastructure. However, overall, digital transformation has proven to be able to strengthen the quality of service relationships between cooperatives and members and support the modernization of university cooperative governance.

The contribution of this research to science lies in the development of digital transformation studies in the context of university cooperative management. This research expands the implementation of Digital Transformation theory and SERVQUAL theory by integrating the concept of digital technology-based cooperative services. In addition, this research offers the development of digital tangible dimensions as part of the quality of modern cooperative services, which includes the quality of digital systems, ease of application access, and transparency of online services. This finding provides a theoretical contribution to the development of a modern digital-based cooperative model which is still relatively limited in cooperative research in Indonesia.

Practically, the results of this study can serve as a reference for cooperative administrators, universities, and the government in designing cooperative digital transformation strategies that are oriented towards improving the quality of member services. Strengthening cooperative information systems, improving the digital competence of human resources, and developing more integrated digital services are important steps in supporting the sustainability of cooperatives in the Society 5.0 era.

Further research is recommended to expand the research object to various types of cooperatives in different regions in order to obtain more comprehensive results that can be generalized more widely. In addition, future research can use a quantitative or mixed methods approach to statistically measure the influence of digital transformation on member satisfaction, member loyalty, and cooperative financial performance. Further research can also develop cooperative digital transformation models based on artificial intelligence, big data, and mobile application-based service systems to address the challenges of future digital technology developments.

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