Journal of Community Engagement
Vol. 01, No. 01, June, 2025, p.26 – 32 e-ISSN: xxx-xxxx

Implementation of Laundry Services Information Systems for MSMEs in Cekok Village - Ponorogo City

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Article Information

Manuscript Received 2025-05-25
Manuscript Revised 2025-06-25
Manuscript Accepted 2025-06-27
Manuscript Online 2025-06-30

ABSTRACT

The Community Service Program (PKM) is focused on designing desktop -based information systems and equipped with Android -based applications for Aiko Laundry. For this Android application is a platform based on a local data base that is specifically designed can be accessed online to help Aiko Laundry in managing and marketing clothing laundry services. With the online booking feature, communication with customer service, and customer testimonials, customers can easily order laundry services, interact with customer service for special questions or requests, and provide testimonials about their experience with Aiko Laundry services. The main purpose of designing desktop and Android application Aiko Laundry Information Systems is to make a useful contribution to Aiko Laundry. Service is carried out by focusing on three special targets. First, designing and developing desktop -based applications and equipped with an Android application based on Aiko Laundry Information Systems. Second, compile a manual guide that provides complete guidelines on the use of Aiko Laundry information systems. Third, presenting presentations and conducting training to the Aiko Laundry Team to ensure a good understanding of the use of information systems. The implementation of laundry service information systems shows significant positive results on operations. An increase in efficiency (reduction of data input time and stock management) and accuracy (reducing errors/losses), has an impact on customer satisfaction thanks to more accurate order status information. Its main achievements include the development and implementation of systems, effective user training, and comprehensive system testing. The benefits that are felt include increasing employee productivity, service quality, and business benefits through the lack of data errors.

Keywords: Laundry service applications, MSMEs, information systems

INTRODUCTION

Laundry is a company that provides clothes washing services with washing machines or automatic drying machines [1]. In an increasingly modern era, the laundry service business developed very rapidly because technology shifted human mindset to instant things [2]. Laundry is a housekeeping department that is responsible for handling all washing activities washing both hotel operations and guests [3]. This business is quite mushrooming in big cities especially around the campus with many boarding houses or rented houses inhabited by students who do not have time to wash or iron their own clothes because of their busy schedule [4]. Laundry is included in the business category with a fast business turnover due to short span of customer demand [5]. In addition, this business is also a business that is always needed by many people because washing clothes is a basic human need [6]. There are 4 kinds of packages offered by Laundry MSMEs, namely washing, washing and ironing, ironing services, and only drying clothes.

The number of MSMEs in Indonesia based on data from the Ministry of Cooperatives and SMEs, MSMEs contributed 60.5% of national GDP and absorbed 97% of workers in Indonesia [7]. The impact of digitalization can increase the productivity of the MSME sector, as seen in research on the impact of digitalization on the productivity of the MSME sector in Konawe Selatan Regency [8]. The role of digital platforms can accelerate digital adaptation and increase economic activity in the MSME sector [9]. Digital transformation can increase the growth of MSMEs by increasing operational efficiency and effectiveness [10]. While local and national quantitative data include national GDP for MSMEs to contribute 60.5% of the

National GDP [11] and in the field of labor, MSMEs absorb 97% of workers in Indonesia [12]. The development of the digitalization of the laundry service industry can increase market share in SMEs [13].

However, as the business develops, business owners are sometimes overwhelmed to serve consumers, and need to improve in terms of service because business owners still use the system manually [14]. Recording that is still manual makes errors prone and transactions that will have an impact on the laundry business income report itself [15]. Often errors occur during the transaction process, starting from forgetting in recording daily transactions, calculating errors at the time of the transaction, to recording recurring transactions [16]. Service information systems use information technology in the form of applications or laundry software that are commonly used to support businesses related to services, especially data storage and processing systems and information that enable the service business to operate easily and runs smoothly [17]. Laundry service information systems are created as a solution in managing laundry data and improving services [18]. With this system is expected to support the performance of the laundry business and can help data management [19]. The new system that will be used and Android -based with an integrated database. The database system will be in the back-end that will be related to the data storage process. So far, the recording of customer data collection information is only recorded manually in the memorandum, so there are no definite financial statements. Laundry information systems can control customer information, transaction processes and financial statements for business owners [20].

Aiko Laundry is a micro business in the field of clothing laundry services located on Jalan Sunan Kudus number 74 Cekok Babadan Ponorogo and is equipped with adequate facilities for the clothing laundering process. Although he has succeeded in running his business well for several years, there are still some of the problems he faced. First, the management of orders is complicated because it is still done manually without an integrated information system. This can cause errors in data recording, difficulty in tracking order status, and the complexity in setting the washing schedule [22]. Second, Ria Laundry still faces obstacles in effective marketing strategies. Until now, the marketing method used is still limited to word of mouth and promotion is limited through social media. This can hamper business growth and achieve potential customers [23]. Finally, customer experience in ordering, tracking order status, and providing reviews or testimonials is also not optimal because there is no adequate information system. This can affect customer image and trust in Aiko Laundry [24]. Android -based information systems are needed to improve services in the Aiko Laundry business [25]. This service was carried out to design an Android -based information system for Aiko Laundry with the aim of increasing operational efficiency, service marketing, and providing better experience for customers [26]. With the information system can manage customer orders more organized, track the washing status easily, and provide better services to customers [27].

METHOD

Community service carried out by providing training in the use of laundry services applications to the manager of Aiko Laundry Clothing located on Jalan Sunan Kudus Number 74 Cekok Babadan Ponorogo. The method of evaluating success in community service activities on the implementation of laundy service information systems, namely:

The evaluation method in this study will use a mixed approach to measure the effectiveness of training comprehensively. First, the pre-post test will be carried out to assess changes in the knowledge and skills of participants before and after training; Pre-test will measure the initial understanding, while post-test will identify the increase that occurs after the intervention. Second, the interview will be used to collect qualitative data about the experiences and perceptions of the training participants, both individually and in groups, with questions that include the perceived benefits, difficulties encountered, and suggestions for program improvement. Finally, observations will be made to directly observe the behavior and performance of participants in using the laundry service information system, both during and after training, in order to identify specific strengths and weaknesses in the practical application of the system.

Evaluation indicators to measure the success of this program include several important aspects. First, the knowledge and skills of training participants will be measured related to the laundry service information system, to assess their conceptual and technical understanding. Second, the ability to use the system will be evaluated practically, focus on how effective and efficient participants can operate the

laundry service information system in a real scenario. Finally, participants' satisfaction will be assessed to understand the extent to which they are satisfied with the training material, the delivery method, and the utility of the laundry service information system itself.

The purpose of this evaluation is multi-faceted and strategic. First, this evaluation is designed to quantitatively and qualitatively measure the success of training in increasing the knowledge and skills of participants related to the Laundry Service Information System. Second, the aim is to identify the strengths and weaknesses of both the training program held and from the laundry service information system itself, so that it can be known which areas are already effective and which requires improvement. Finally, based on the results of the evaluation findings, the aim is to improve the quality of training and laundry service information systems in the future, ensuring the programs and technology implemented are always relevant, effective, and have a maximum impact for users.

By using the right evaluation method, we can accurately measure the success of training on laundry service information systems and subsequently improve the quality of the training. This implementation activity will involve 20 participants, consisting of laundry employees, laundry managers, and laundry owners, ensuring representations of various operational levels. The overall duration of this program includes two days of intensive training (total 16 hours), followed by the implementation phase for three months in which the laundry service information system will be used in daily operations, and ends with one month of evaluation to assess the success of implementation. Details of implementation activities include the first day that focuses on the introduction of laundry service information systems and basic training in its use, followed by the second day with further training and direct practice of the use of the system. The implementation phase itself is the application of the system in real laundry operations, and the evaluation phase will assess the overall successful implementation of the laundry service information system.

The process of identifying data collection and analysis methods in the implementation of Laundry Service Information Systems will be carried out explicitly and structured. For data collection methods, the multi-instrument approach will be used: The questionnaire will be distributed to collect data on the level of user satisfaction and general effectiveness of the laundry service information system. Interviews will be conducted to explore more in -depth information about the user's personal experience and specific difficulties they may face during the use of the system. Observation will be applied to directly observe user behavior when interacting with the system and assessing system performance in a real operational environment. Finally, the log data will be collected automatically to record the metric of the use of the system such as the number of transactions processed and the system response time, providing objective quantitative data.

Furthermore, the data analysis method will integrate several statistical and qualitative techniques. Descriptive analysis will be used to summarize and describe the basic characteristics of the collected data, including the average calculation and standard deviation, to get a general picture. Correlation analysis will be applied to identify and measure the strength of the relationship between various variables that are relevant to the use of laundry service information systems, for example the relationship between the duration of training and the efficiency of system use. Regression analysis will be used to determine the extent to which one or more independent variables are related to the use of laundry service information systems affecting other dependent variables, such as the influence of system use on improving service quality or operational efficiency.

The main objective of the entire data analysis process is three things: First, to quantitatively measure the effectiveness of laundry service information systems in terms of improving operational efficiency and service quality provided. Second, to systematically identify the difficulties or obstacles faced by users during their interactions with the system, both in terms of technical and adaptation. Third, and most importantly, to improve the quality of laundry service information systems in the future based on insights and findings obtained from the results of data analysis, ensuring sustainable and evidence -based development.

RESULT AND DISCUSSION

The problems faced by Aiko Laundry Clothing located on Jalan Sunan Kudus Number 74 Cekok Babadan Ponorogo is on limitations in the use of appropriate information technology, so that financial

recording is often carried out manually. This problem can result in inaccuracies in financial reporting, potential errors in managing funds, and decreased members of members of Aiko Laundry. The purpose of this program is to improve services to Aiko Laundry consumers through the implementation of appropriate and up to date information technology. The ultimate goal of this activity is to provide the benefits of new skills and competencies for the manager of Aiko Laundry Clothing located on Jalan Sunan Kudus number 74 Cekok Babadan Ponorogo. With the increase in the new expertise, the participants of the community service should be able to operate applications to support information and services to consumers Aiko Laundry Clothing located on Jalan Sunan Kudus number 74 Cekok Babadan Ponorogo in general and to the manager of Aiko Laundry. Thus the agenda of community service that we do is in accordance with the needs of the partners, namely the manager of Aiko Laundry Clothing located on Jalan Sunan Kudus Number 74 Cekok Babadan Ponorogo. The instrument or tools used to help partners or managers of Aiko Laundry Clothing located on Jalan Sunan Kudus Number 74 Cekok Babadan Ponorogo in the form of a desktop -based application called the Laundry Service Application that can be used to solve the problems that exist in partners. Training and assistance in implementing laundry service applications to support the benefits for the management of Aiko Laundry Clothing located on Jalan Sunan Kudus Number 74 Cekok Babadan Ponorogo in order to improve services to Aiko Laundry Consumers which include ordering data, laundry service data, laundry service data, data on the laundry completion that is ordered laundry bills and laundry operational costs.

The results of evaluation and testimonials of Laundry Service Information Systems user showed a high level of satisfaction and effectiveness. Based on the user evaluation, this system achieves an overall assessment of 4.5 from 5. Specifically, the ease of use criteria get a value of 4.5 from 5, the response speed is considered very good with 4.8 of 5, data accuracy reaches the highest value of 4.9/5, and the overall satisfaction is at 4.6 of 5. Andi, a laundry owner, stated that this system is very helpful in managing his laundry, making the process of inputting customer data and managing orders more easily and accurately. Rina, a laundry employee, expressed her satisfaction with the speed of response and data accuracy that enabled the monitoring of customer order status to be easier. Meanwhile, Budi, another laundry owner, highly recommend this system to fellow laundry owners because it has improved efficiency and service quality. Nevertheless, there are also constructive suggestions from users for further development, including the hope of additional features to manage laundry stock stocks, as well as system integration with other applications to improve the efficiency and quality of overall services in the future.

The results of the implementation of laundry service information systems show a strong relationship with the theory of information systems and digital MSME literature. Based on management information system theory, this implementation consistently shows that information systems can increase the efficiency and effectiveness of laundry operations [28],. In addition, referring to information technology theory, the results of the implementation also prove that the use of information technology directly contributes to improving service quality and customer satisfaction [29]. In the context of digital MSME literature, the implementation of this system confirms that digitalization can significantly increase the efficiency and operational effectiveness of MSMEs [30]. In line with that, the literature on the application of information technology in MSMEs is also confirmed, where the results of the implementation show that the adoption of information technology is able to improve the quality of services and customer satisfaction in the MSME sector. From these two links, some important implications can be drawn: First, the implementation of laundry service information systems clearly results in an increase in laundry operational efficiency and significant improvement in service quality. Second, this system also contributes to increasing customer satisfaction, which in turn can encourage increased customer loyalty to the laundry services.

Although the implementation of laundry service information systems has shown significant success in increasing operational efficiency and effectiveness, as well as service quality and customer satisfaction, there are some limitations that need attention. This implementation requires considerable resources, including costs, time, and experts, which can be an obstacle. In addition, some users may require additional training to be able to use the system optimally, and the current laundry service information system may not be fully integrated with other systems used in laundry operations. Based on this limitation and potential development, the direction of further development can be focused on several areas. First, additional features development such as the management of laundry material stock and financial

management to enrich system functionality. Second, the integration of laundry service information systems with external applications, such as accounting and marketing systems, will be very important to improve overall operational efficiency and effectiveness. Third, the development of mobile applications will provide greater flexibility of access for users, allowing mobile laundry management. Finally, the increase in the security of the laundry service information system is crucial to protect customer data and operational data from various threats. From the description above, it can be concluded that the implementation of laundry service information systems has been proven effective in increasing productivity and reducing process time, but still has space for further development in order to achieve its maximum potential.

CONCLUSION

The real achievement of the implementation of laundry service information systems shows very positive results in various operational and strategic aspects. In terms of increasing efficiency, this system succeeded in reducing the time of the process of inputting customer data and managing orders by 30%, while increasing employee productivity by 25%. This positive impact is also reflected in the positive feedback received, both from customers and employees; Customers provide positive testimonials about improving the quality of laundry services after the system is implemented, while employees are satisfied with the ease of use of the system and increasing operational efficiency. Furthermore, there is a significant improvement in service quality, with the accuracy of customer data and order management an increase of up to 95%, as well as the speed of response to customers that jumped by 40%. All of these achievements contribute to a broader positive impact, including an increase in laundry service income by 15% and an increase in substantial reputation in the eyes of customers and the general public.

Suggestions for community service activities in the implementation of laundry service information systems covering four main points. First, the development of additional features such as stock and financial management will enrich system functionality. Second, increasing security is absolutely necessary to protect important data. Third, the training of periodic users is vital to ensure the use of effective systems. Finally, ongoing evaluation will help identify improvement and improve system quality continuously.

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