



Digital Literacy and Community Digital Cultural Adaptation: A Study of the Use of the Ferizy Application at Ulee Lheue–Balohan Port

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Abstract: This study is motivated by the transformation of ferry transportation services from a manual system to a digital platform through the Ferizy application, which has generated various responses and challenges among users. The main problem of this research lies in the intergenerational gap in digital cultural adaptation and the technical constraints that affect the effectiveness of application usage. This study aims to analyze the process of community digital cultural adaptation in using the Ferizy application for the Ulee Lheue–Balohan ferry service. The research employs a qualitative approach with a descriptive design. Data were collected through interviews with 15 informants selected purposively, consisting of different generational groups as well as port officers as supporting informants. The findings indicate that levels of knowledge, adaptation processes, and challenges in using the Ferizy application vary across generations. The younger generation tends to adapt more quickly to digital technology, while the older generation faces difficulties, particularly in digital literacy and the use of application-based systems. In addition, technical issues such as network disruptions and system errors also affect service effectiveness. The study implies that the success of digital service transformation depends not only on technological availability but also on social readiness and the level of digital literacy within the community. Therefore, improvements in digital education and infrastructure support are essential to ensure equitable access and optimal use of the service.

Keywords: Digital cultural adaptation, Intergenerational differences, Digital literacy, Digital transformation, Ferry transportation services.

Abstrak: Penelitian ini dilatarbelakangi oleh perubahan sistem layanan penyeberangan dari model manual ke digital melalui aplikasi Ferizy yang memunculkan berbagai respons serta kendala di kalangan masyarakat pengguna. Masalah utama dalam penelitian ini adalah adanya kesenjangan

adaptasi budaya digital antar generasi serta hambatan teknis yang memengaruhi efektivitas penggunaan aplikasi. Penelitian ini bertujuan untuk menganalisis proses adaptasi budaya digital masyarakat dalam penggunaan aplikasi Ferizy pada layanan penyeberangan Ulee Lheue–Balohan. Metode yang digunakan adalah pendekatan kualitatif dengan desain deskriptif. Data dikumpulkan melalui wawancara terhadap 15 informan yang dipilih secara purposive, yang terdiri dari berbagai kelompok generasi serta petugas pelabuhan sebagai informan pendukung. Hasil penelitian menunjukkan bahwa tingkat pengetahuan, proses adaptasi, dan kendala penggunaan aplikasi Ferizy berbeda di setiap generasi. Generasi muda cenderung lebih cepat beradaptasi dengan teknologi digital, sementara generasi yang lebih tua mengalami kesulitan terutama terkait literasi digital dan penggunaan sistem berbasis aplikasi. Selain itu, faktor teknis seperti gangguan jaringan dan kesalahan sistem turut memengaruhi efektivitas layanan. Penelitian ini berimplikasi bahwa keberhasilan transformasi layanan digital tidak hanya ditentukan oleh ketersediaan teknologi, tetapi juga oleh kesiapan sosial masyarakat dan tingkat literasi digital. Oleh karena itu, diperlukan peningkatan edukasi digital serta dukungan infrastruktur untuk memastikan pemerataan akses dan penggunaan layanan secara optimal.

Kata Kunci: Kata Kunci: Adaptasi budaya digital, Perbedaan antargenerasi, Literasi digital, Transformasi digital, Layanan transportasi penyeberangan.

Introduction

The development of information and communication technology has brought fundamental changes to various aspects of social life, including the provision of public services. This transformation not only introduces new devices and systems but also reshapes social structures and patterns of interaction between institutions and society. Manuel Castells, in his concept of the network society (2005), explains that contemporary society is structured within digital networks interconnected through information flows based on technology (Bimantara et al.,^A 2026).^N In such a network society, the relationship between government and citizens is no longer entirely hierarchical and unidirectional but becomes more open, dynamic, and participatory in nature (Okvita et al., 2024). Digitalization does not merely modernize service systems but also transforms how people access, understand, and interact with public services.

In the context of public services, digital transformation drives a shift from conventional face-to-face service systems toward online-based services (Latuo & Nuryani, 2025). Whereas previously citizens had to be physically present to complete administrative processes, various services can now be accessed through applications and digital platforms. This shift brings greater time efficiency, procedural transparency, and convenience in monitoring service stages (Masse, 2017). However, behind these advantages, digitalization also demands societal readiness to adapt to new service mechanisms. In other words, the success of digital transformation is determined not only by technological sophistication but also by the social and cultural capacity of

society to adjust to such changes (Nugroho et al., 2025).

The implementation of this transformation is also evident in the ferry transportation sector in Indonesia. PT ASDP Indonesia Ferry (Persero), a state-owned enterprise engaged in ferry transportation services, responded to the challenges of digitalization by launching the Ferizy application in May 2020 (Nisa, 2026). This application introduces an online ticketing system that replaces the conventional manual ticket purchasing mechanism. Since the implementation of online ticketing, ferry service users, including those in the Aceh region, have been directed to book and pay for tickets digitally prior to departure ((Persero), n.d.).

This policy has also been implemented on the Ulee Lheue–Balohan route as the main connection between Banda Aceh and Sabang. Normatively, the online ticketing system through the Ferizy application is intended to improve service efficiency and reduce queues at ports. However, in practice, passengers who have already made digital bookings and payments are still required to queue at ticket counters to obtain physical tickets. This condition indicates that the implementation of the digital system has not yet fully optimized the service process as expected (Ayu et al., 2022).

This phenomenon suggests that digital transformation in public services does not solely depend on the availability of technological infrastructure and systems, but also on the readiness and ability of society to adapt to changes in service mechanisms (Kalam et al., 2026). Differences in digital literacy levels, technological readiness, and habitual patterns of accessing services directly are factors that may influence the effectiveness of digital system implementation in practice (Banjarnahor et al., 2023). In this context, generational differences become a significant aspect to be analyzed.

Generational differences constitute one of the key factors influencing the process of societal adaptation to digital service applications. Conceptually, Generation Z is often regarded as more adaptive to digital technology because they were born and raised in an environment closely associated with the use of digital devices and applications in daily life (Aryani et al., n.d.). Meanwhile, millennials and older generations such as Generation X and Baby Boomers generally require a more gradual adjustment process in dealing with relatively new digital systems (Restianty, n.d.).

These differences indicate that the level of adaptation to the use of the Ferizy application may vary across generations, making it an interesting issue to further investigate in the context of digital cultural adaptation in ferry services (Dewi, 2025). Differences in historical experiences of interacting with technology shape variations in acceptance patterns, usage behavior, and responses to digital service systems such as the Ferizy application. Without adequate adaptation processes, the effectiveness of digital transformation in ferry services may face various implementation challenges (Pendidikan et al., 2023). This highlights the importance of examining the process of intergenerational digital cultural adaptation in the use of the Ferizy application for the Ulee Lheue–Balohan ferry service (Kekalih &

Wahyuningdyah, 2022).

The phenomenon of differing public responses and levels of readiness in facing service digitalization indicates that digital transformation is not only related to system change but also to the process of innovation acceptance by individuals within a social system (Pratiisa, 2026). Therefore, to understand how society adopts and adapts to the use of the Ferizy application, this study employs the perspective of the Diffusion of Innovation Theory proposed by Everett Rogers. Rogers (1962) explains that innovation adoption is influenced by elements such as innovation, communication channels, time, and social systems, as well as characteristics including relative advantage, compatibility, and complexity. In this study, the theory is used to analyze differences in the level of adaptation across generations in the use of the Ferizy application (Mailin et al., 2022).

To date, studies on the digitalization of ferry transportation services have largely focused on system efficiency, institutional policy, and general technology acceptance. However, limited research has specifically examined the process of intergenerational digital cultural adaptation in the context of application-based ferry services. Therefore, this study aims to analyze in depth the dynamics of intergenerational digital cultural adaptation and to identify the social and cultural factors influencing the use of the Ferizy application in the Ulee Lheue–Balohan ferry service. Accordingly, this research is expected to contribute conceptually to the development of digital culture studies in the public service sector, as well as provide practical implications for improving the effectiveness of digital-based ferry service implementation.

Based on these conditions, a central question arises regarding how the process of intergenerational digital cultural adaptation occurs in the use of the Ferizy application for ferry services and what challenges or constraints influence the adjustment process to this digital-based service system. This question is relevant because digital transformation in public services is not only concerned with changes in technical mechanisms but also involves social and cultural dimensions that shape patterns of public behavior. Differences in generational characteristics, levels of digital literacy, and technological experience may generate variations in responses to application-based service innovations.

Method

This study employs a qualitative method with a descriptive approach. This approach was chosen because it is appropriate for gaining an in-depth understanding of the phenomenon of community digital cultural adaptation in the use of the Ferizy application in ferry transportation services (Waruwu, 2024). Qualitative research allows the researcher to explore experiences, perceptions, and social dynamics that occur in the process of acceptance and use of digital-based service systems (Fatimah et al., 2023).

The research was conducted at Ulee Lheue Port in Banda Aceh City and Balohan Port in Sabang City. These locations were selected because they

constitute the main ferry route that has implemented an online ticketing system through the Ferizy application. The research subjects consisted of Ferizy service users from the Acehnese community and tourists, as well as port officers and managing authorities involved in the implementation of the system. Informants were selected purposively based on their involvement and experience in using and managing the Ferizy application.

The selection of informants used purposive sampling, a technique for deliberately determining participants based on specific criteria relevant to the research needs. The criteria for informants in this study included users who had experience in using or were currently using the Ferizy application, represented different generational groups such as Generation Z, Millennials, and Baby Boomers, and had direct experience in purchasing tickets both digitally and manually. In addition to service users, this study also involved port officers directly engaged in ferry service operations and the implementation of the Ferizy application in the field. Selecting informants from different generational groups was intended to enable the researcher to observe differences in knowledge levels, adaptive capacity, and technological experience across age groups.

Interviews were conducted directly at the port or at locations mutually agreed upon with informants. During the interviews, the researcher recorded key points from respondents' answers and documented the process using audio recording devices with the informants' consent. This documentation was intended to facilitate data transcription and ensure the accuracy of the information obtained during the research. In addition, the researcher also collected supporting documentation in the form of photographs of service conditions, application usage in the port area, and interactions between users and service officers.

The number of informants in this study was 15 individuals, consisting of representatives from different generational groups and port officers. This number was determined based on the principle of data saturation in qualitative research, namely the point at which the data obtained from informants shows repetitive patterns and no longer produces significantly new information.

To ensure data validity, this study employed source triangulation and technique triangulation. Source triangulation was conducted by comparing information obtained from different groups of informants, such as Generation Z, Millennials, Baby Boomers, and port officers. This comparison was carried out to examine similarities and differences in user experiences across groups. Meanwhile, technique triangulation was conducted by comparing interview results with field observations and research documentation. Through this process, the researcher ensured that the data obtained accurately reflected real conditions in the field.

Data analysis was carried out in stages from the beginning of data collection until the completion of the research. The first stage was data reduction, which involved selecting, simplifying, and focusing data relevant to

the research objectives. At this stage, interview and observation data were categorized according to research focus, such as user knowledge levels, adaptation processes to the application, types of usage constraints, and the influence of social and cultural factors on the use of the Ferizy application. After data reduction, the next stage was data presentation in the form of narrative descriptions to facilitate understanding of patterns and relationships among findings. The presented data were then analyzed in depth to identify interconnections among categories. The final stage was conclusion drawing and verification, which involved formulating research findings based on patterns identified in the field and rechecking their validity through repeated review of interview results, observations, and documentation.

Results and Discussion

Results

The following is a list obtained from several informants representing different generational groups. This grouping aims to identify differences in social characteristics, experiences, and levels of digital literacy that influence the use of the Ferizy application in ferry transportation services. The informant data are as follows:

Table 1. List of Informants

Code	Age	Occupation	Origin	Generation
I1	21 years	Student	Sabang	Gen Z
I2	21 years	Student	Banda Aceh	Gen Z
I3	22 years	Student	Banda Aceh	Gen Z
I4	21 years	Student	Sabang	Gen Z
I5	21 years	Student	Sabang	Gen Z
I6	30 years	Bank Teller	Medan	Millennial Generation
I7	35 years	Private Employee	Sabang	Millennial Generation
I8	45 years	Housewife	Banda Aceh	Millennial Generation
I9	41 years	Housewife	Banda Aceh	Millennial Generation
I10	40 years	Trader	Sabang	Millennial Generation
I11	60 years	Fisherman	Sabang	Baby Boomers
I12	62 years	Housewife	Banda Aceh	Baby Boomers
I13	60 years	Housewife	Sabang	Baby Boomers
I14	40 years	Port Officer	Langsa	Millennial Generation
I15	44 years	General Manager	Pontianak	Millennial Generation

Based on the table above, the list of informants involved in this study concerns the use of the Ferizy application in the Ulee Lheue–Balohan ferry service. The study involved 15 informants consisting of ferry service users and port officers. The informants were selected using a purposive sampling technique based on specific criteria, such as having used the Ferizy application and having experience with both digital and manual ticketing

systems.

The informants were categorized into three generational groups, namely Generation Z, Millennials, and Baby Boomers, with diverse occupational backgrounds and places of origin. In addition, this study also included port officers and a General Manager to obtain information related to the implementation of the Ferizy application in ferry services. This grouping of informants aims to examine differences in experiences and levels of digital adaptation across generational groups.

Based on the research findings, the user adaptation process can be observed through several key aspects, namely knowledge of the Ferizy application, the adaptation process in using the application, and the challenges encountered during its use, all of which are interrelated and collectively provide a comprehensive understanding of how the community perceives, utilizes, and adjusts to digital technology in ferry transportation services; by examining these aspects, this study seeks to comprehensively describe the dynamics of community digital cultural adaptation in the use of the Ferizy application.

Knowledge of the Ferizy Application

The research findings indicate that public knowledge of the Ferizy application is not uniform, but rather shaped by experience, habits, and the level of engagement of each generational group in the use of technology. Among Generation Z (I1, I2, I3, I4, I5), knowledge of the application appears to be well developed and integrated into daily activities. This group generally understands the function of the application as a digital-based ferry ticket booking system that provides convenience, certainty, and efficiency in service processes. In addition, the application is also perceived as a means of reducing uncertainty in obtaining tickets compared to the manual system. This is reflected in informants' statements that "using the application is easier, making ticket booking more convenient and eliminating long queues at the port," and that the application makes the ticket purchasing process more certain (I1, I2, I3, I4, I5, interview April 2026). These findings show that Generation Z has reached a level of understanding that goes beyond recognition and extends to practical daily use of the application.

Meanwhile, among the Millennial Generation (I6, I7, I8, I9, I10), knowledge of the application shows more varied patterns. Some informants are familiar with and have used the application in their activities, particularly those with greater exposure to technology. However, others remain at the stage of merely knowing about the application without any direct usage experience. This is reflected in informants' statements that they had "heard about the application but have never tried using it themselves" (I6, I7, I8, I9, I10, interview April 2026). This variation illustrates that the process of understanding within the Millennial group develops gradually and is influenced by experience and the intensity of interaction with digital technology.

In contrast, the Baby Boomer Generation (I11, I12, I13) shows that knowledge of the application is largely formed through limited experience and established habits. Informants in this group are generally not accustomed to using the application and tend to feel more comfortable with purchasing tickets directly at the port. This condition is related to limitations in the use of digital devices as well as long-established behavioral patterns. This is reflected in informants' statements that "I do not really understand this application because I do not have an Android phone; I usually just buy tickets directly" (I11, I12, I13, interview April 2026). These findings indicate that this group's interaction with the application remains at a limited introductory stage.

Meanwhile, informants from port officers (I14, I15) demonstrate a more contextual form of knowledge due to their direct involvement in daily work practices. Their engagement in a service system that has been integrated digitally has made them familiar with the Ferizy application, although it initially required a period of adjustment. Their knowledge is not limited to basic usage but also includes an understanding of service flow, verification processes, and technical issues encountered in the field. This is reflected in informants' statements that "we have become accustomed to the Ferizy system because it is used in ticket service operations at the port, even though at the beginning it was somewhat difficult to adapt" (I14, I15, interview April 2026). Thus, knowledge in this group is formed through direct experience within the operational system.

The Adaptation Process in Using the Ferizy Application

The process of adapting to the use of the Ferizy application shows that changes in public behavior in adopting digital technology occur gradually and are influenced by a combination of individual, social, and structural factors. This adaptation pattern varies across generational groups in terms of learning methods, levels of independence, and the role of the surrounding environment in supporting the process.

Among Generation Z (I1, I2, I3, I4, I5), the adaptation process appears to be self-directed and integrated into daily technology use habits. Informants in this group generally learn to use the application through direct exploration of its features without relying on assistance from others. The process occurs naturally, starting from experimentation until they become accustomed to using the application in daily activities. These findings indicate that adaptation among Generation Z does not stop at the usage stage but has become part of their digital lifestyle.

"Initially, we just tried it out, and eventually we got used to using the application." (I1, I2, I3, I4, I5, Interview April 2026).

Meanwhile, among the Millennial Generation (I6, I7, I8, I9, I10), the adaptation process shows more varied patterns and is largely influenced by the social environment. Some informants began using the application after receiving assistance from family members or colleagues who introduced and guided them in using it. The learning process occurs gradually, moving from

dependency toward independent use. This condition indicates that social interaction plays an important role in accelerating technological adaptation among Millennials.

“At first I was helped, but over time I became able to use it on my own.” (I6, I7, I8, I9, I10, Interview April 2026).

In contrast, informants from port officers (I14, I15) demonstrate a more structured adaptation pattern due to direct job requirements. The adaptation process in this group is driven not only by personal needs but also by work systems that require the use of the application in service operations. As a result, the adjustment process takes place in a more structured and repetitive context, making the application part of daily work routines.

“We had no choice but to learn it because it is used in our daily work.” (I14, I15, Interview April 2026).

Meanwhile, among the Baby Boomer Generation (I11, I12, I13), the adaptation process follows a different pattern. Informants in this group tend not to explore the application independently and instead rely on assistance from others when needed. In addition, there is a tendency to continue using manual methods because they are considered more familiar and aligned with established habits. These findings indicate that adaptation in this group is still influenced by habitual factors, past experiences, and comfort with conventional service systems.

“I feel more comfortable buying tickets directly rather than using the application.” (I11, I12, I13, Interview April 2026).

Constraints in the Use of the Application

In the process of adapting to the Ferizy application, the community is faced with various obstacles that affect the level of use and acceptance of the technology. The challenges identified in this study are not only technical in nature but also include cognitive and structural aspects that influence the adoption of the application in daily life.

Technical issues such as network disruptions, system errors, and access congestion are among the most frequently experienced barriers by users, especially during periods of high demand. However, users with higher digital literacy tend to be able to adjust independently.

“Sometimes the application errors when it is busy, making it difficult to book tickets.” (I3, Interview 10/04/2026).

For some other users, difficulties also arise in understanding the application workflow, particularly in the booking and payment processes. This indicates that digital literacy plays an important role in the successful adoption of technology.

“Sometimes it is confusing at the beginning, especially when the payment fails.” (I7, Interview 09/04/2026).

This condition shows that the challenges faced by the Millennial group are not only related to the system itself but also to uneven levels of digital literacy. As a result, the adaptation process within this group takes longer and often requires assistance from others. In contrast to service users, informants from port officers face challenges that are more operational and systemic in nature. These include system disruptions during peak user traffic, user input errors, and system limitations in handling certain field conditions.

“The system sometimes has issues when many people access it.” (I14, Interview 14/04/2026).

“We are currently also working on providing a VIP feature.” (I15, Interview 14/04/2026).

This shows that the challenges do not only affect individual users but also impact overall service quality. Thus, the success of the Ferizy application implementation depends not only on user readiness but also on the readiness of the system and supporting infrastructure. Meanwhile, among the Baby Boomer group, the challenges faced are more dominant in non-technical aspects, particularly related to low digital literacy and limited access to technological devices. This indicates that the challenges in this group are fundamental in nature, significantly hindering the process of adaptation to digital technology. The issue is not only related to ability but also access, which leads this group to continue relying on manual methods for ticket purchasing.

The challenges in using the Ferizy application demonstrate that the technology adoption process is influenced by various factors, both from individuals and from the system itself. The differences in types of challenges across generations also reflect the existence of a digital divide in society, which affects varying levels of adaptation to digital innovation.

Discussion

This discussion section presents a further analysis of the research findings that have been described previously, by linking them to the conceptual framework and the theory used in this study. The interview data that have undergone reduction and categorization are then summarized in table form to clarify the patterns of findings based on generational groups and types of experiences emerging in the use of the Ferizy application.

The presentation in table form aims to demonstrate the relationship between the characteristics of each group and the categories of findings, which include aspects of knowledge, adaptation processes, and challenges encountered. Through this grouping, it can be observed how differences in experiences, habits, and interactions with technology shape diverse patterns of adaptation within society. The summary of these categorized findings is presented in the following table.

Table 2. Comparative Analysis of Generational Experiences in Using the Ferizy Application

Group	Description	Category
Generation Z	Ease of use, independent adaptation, and system disruptions	Perceived usefulness, adaptation process, technical constraints
Millennials	Awareness, social assistance, usage difficulties	Initial knowledge, assisted adaptation, cognitive constraints
Baby Boomers	Preference for manual methods, low digital literacy, limited access	Limited knowledge and access
Port Officers	Work demands, system overload	Cultural adaptation and system constraints

Table 2 presents the results of data categorization based on interview findings from each group of informants regarding the use of the Ferizy application. The data categorization was carried out through a process of reduction and thematic grouping based on in-depth interview results, which were analyzed using the qualitative data analysis technique proposed by Matthew B. Miles and A. Michael Huberman, consisting of data reduction, data display, and conclusion drawing. This categorization aims to facilitate the researcher in identifying patterns of digital cultural adaptation across generational groups and the factors influencing the use of the Ferizy application.

Based on Table 2, the Generation Z group shows a tendency toward faster adaptation to the use of the application. Informants in this group perceive the application as easy to use and capable of being learned independently, although technical issues such as system disruptions are still encountered. These findings indicate that Generation Z has a high perceived usefulness of digital technology and a stronger adaptive capacity compared to other generational groups.

Meanwhile, among the Millennial Generation, the process of using the application is strongly influenced by initial knowledge levels and support from the social environment. Some informants understood the application after receiving assistance from family members or colleagues, yet still experienced difficulties in certain stages of use. This condition indicates that adaptation within the Millennial group occurs gradually and is influenced by social factors as well as digital comprehension skills.

For the Baby Boomer group, the findings indicate a tendency to prefer manual systems over digital applications. Low digital literacy and limited access to devices and internet connectivity are the main factors influencing the adaptation process in this group. This shows that age-related factors and long-established habits of using conventional services remain barriers to the

acceptance of digital technology.

In contrast to service users, port officers demonstrate an adaptation pattern shaped by work demands and service operational systems. The use of the application has become part of their daily work routine, resulting in a more structured adaptation process. However, they also face constraints in the form of system overload during periods of high application usage. This finding shows that digital adaptation is influenced not only by individual capabilities but also by system conditions and supporting work structures.

Table 2 illustrates that the process of digital cultural adaptation in the use of the Ferizy application varies across informant groups. These differences are influenced by levels of digital literacy, technological experience, social support, and structural factors within the ferry service environment.

Integration of Digital Culture and Innovation Diffusion Concepts

In this study, the concept of digital cultural adaptation is understood as a process of changing societal behavioral patterns from conventional systems toward technology-based digital systems. This transformation not only involves technical skills but also changes in habits, values, and ways of interacting with service systems. Digital cultural adaptation does not merely refer to the ability to use an application, but also to the process of adjusting to service systems that are faster, more transparent, and technology-based. This indicates that digital transformation is not only technical in nature but also cultural.

When linked to Rogers' Diffusion of Innovation theory, this adaptation process is influenced not only by the stages of adoption (knowledge–persuasion–decision–implementation) but also by individuals' perceptions of the innovation itself, namely:

1. Relative advantage, where users perceive benefits such as time efficiency and reduced queues.
2. Compatibility, where acceptance levels are higher among groups already familiar with technology.
3. Complexity, where higher perceived difficulty—especially among older age groups—leads to lower levels of application adoption.

The research findings indicate that Generation Z has a high perception of relative advantage and a low perception of complexity, enabling faster progression to the implementation stage. In contrast, Baby Boomers exhibit low perceived compatibility and high perceived complexity, resulting in a slower adoption process.

The concept of digital cultural adaptation in this study is not only understood as an individual process but also as a social phenomenon influenced by societal structures and the development of communication technology. In the context of the use of the Ferizy application, the transformation of the service system from manual to digital reflects a cultural shift in public services, from face-to-face interaction-based systems to network-based digital systems. This condition aligns with Manuel Castells'

concept of the network society, which explains that the development of information technology has shaped new patterns of social interaction connected through digital systems. In a network society, the ability to access and use technology becomes an essential part of everyday social activities, including ferry transportation services.

The research findings indicate that generational differences are not the only factor determining the success of technological adaptation, but are also influenced by access, experience, and individuals' social positions in interacting with digital technology. Generation Z tends to adapt more easily because they have grown up alongside digital technology, while the Baby Boomer group shows a slower adaptation process due to limited experience and habitual use of conventional systems. These findings can be analyzed using Everett Rogers' Diffusion of Innovations theory, which explains that innovation adoption is influenced by levels of knowledge, experience, social environment, and individuals' ability to understand new technologies. In this study, the Millennial and Baby Boomer groups tend to require assistance from their social environment before eventually being able to use the application independently, indicating that the technology adoption process occurs gradually.

In addition, the resistance shown by the Baby Boomer group cannot be understood merely as rejection of technology, but is related to limited digital literacy, deeply rooted habits, limited access to devices, and low intensity of interaction with digital systems. This condition indicates the existence of a digital divide within society. According to Jan van Dijk, the digital divide is not only related to access to technology but also includes skills, capabilities, and opportunities to utilize technology effectively. In the context of this study, although some members of society already have access to smartphones and the internet, not all users possess the same ability to understand and operate the Ferizy application.

From the perspective of social change theory, the transformation of ferry services through Ferizy also demonstrates changes in societal behavior driven by technological development. This change is reflected in the shift from direct ticket purchasing culture to the use of online systems that are more practical and efficient. However, this process of social change does not occur uniformly because each social group has different levels of readiness to accept digital innovation. Thus, this study shows that digital cultural adaptation in the use of the Ferizy application is the result of interaction between technological development, social conditions of society, and individuals' ability to adjust to changes in service systems in the digital era.

The use of the Ferizy application in the Ulee Lheue-Balohan ferry service is influenced not only by the technical aspects of the digital system, but also by social and cultural factors embedded within the user community. These factors interact with one another in shaping patterns of acceptance and rejection toward digital innovation. In general, several key aspects influence this process, namely digital literacy, habitual use of conventional services, and

the level of trust in digital systems.

From a social perspective, community digital literacy is an important factor in determining the ability to use the application. In addition, the social environment also plays a role in encouraging technology adoption, where individuals tend to follow the practices of those around them. Furthermore, educational background and experience in using technology also influence the speed of user adaptation in understanding the Ferizy system.

Meanwhile, from a cultural perspective, several values and habits influence application usage patterns. People who are accustomed to purchasing tickets directly at counters still perceive conventional services as easier and more reliable. On the other hand, some users have begun to accept digital systems as they are considered more practical and efficient. In addition, access to devices and internet connectivity also serves as both a supporting factor and an obstacle in the application usage process.

Conclusion

The findings of this study indicate that community digital cultural adaptation in the use of the Ferizy application in the Ulee Lheue–Balohan ferry service reveals an intergenerational gap. This gap is influenced by levels of digital literacy, technological experience, and users' habitual patterns in accessing services. From the perspective of the Diffusion of Innovation theory, the adoption process is uneven, where younger generations tend to fall into the category of *early adopters* due to their familiarity with digital technology, while older generations are more likely to be classified as *late adopters* who still face both technical and cultural barriers. These findings confirm that the success of digital transformation is determined not only by technological readiness but also by the social readiness of society to accept and adapt to change. In addition, the challenges encountered in using the Ferizy application are not solely related to low digital literacy but are also influenced by structural factors such as limited internet connectivity, system disruptions, and application complexity. These conditions have contributed to the suboptimal implementation of digital services in practice.

Based on these findings, this study recommends the need for a more inclusive and user-centered digital transformation strategy. This can be achieved through continuous improvement of community digital literacy, more intensive socialization of application usage, simplification of the application interface and features, and enhancement of internet infrastructure quality. Furthermore, stronger collaboration between service providers and the community is necessary to support a more effective and sustainable adaptation process.

The limitation of this study lies in the relatively small number of informants and the restricted geographical scope, which means that the findings cannot be widely generalized. Therefore, future research is encouraged to involve a larger number of informants and a more diverse research setting in order to obtain a more comprehensive understanding of

digital cultural adaptation in public services.

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