

Strategizing Economic Revival in Mandalika through a One-Stop Digital Collaborative Marketing Platform Upholding Local Wisdom

Ario Yudo Husodo^{a1}, Nadiyah Agitha^{a2}, Fitri Bimantoro^{a3}, Nuraqilla Waidha Bintang Grendis^{b4}

^aDepartment of Informatics Engineering, University of Mataram, Indonesia
Jl. Majapahit no. 62 Mataram, West Nusa Tenggara

^bFaculty of Technical and Vocational Education (FPTV)
Universiti Tun Hussein Onn Malaysia Parit Raja, Johor, Malaysia

¹ario@unram.ac.id (Corresponding Author)

²nadiya@unram.ac.id

³bimo@unram.ac.id

⁴gb220145@siswa.uthm.edu.my

Abstract

In the digital transformation era, information technology plays a pivotal role in shaping economic landscapes and cultural preservation strategies. This research introduces an innovative approach to economic revitalization in Mandalika, Indonesia, through a One-Stop Digital Collaborative Marketing Platform, fully integrated with the NTBmall app, a key digital initiative by Dinas Perdagangan NTB for promoting local products. This symbiotic blend of cutting-edge digital solutions and Mandalika's rich local wisdom forms the core of our strategy, aiming to rejuvenate the region's economic vitality while safeguarding its cultural heritage. Utilizing the System Usability Scale (SUS) for evaluation, the study involved 23 street vendors and 7 Tourism Awareness Group (Pokdarwis: Kelompok Sadar Wisata). The results were compelling: street vendors recorded a usability score of 72.8, indicating good system functionality, while Pokdarwis achieved an outstanding score of 85, reflecting excellent usability. These outcomes highlight the platform's versatility in meeting diverse user needs and its significant potential in boosting Mandalika's economy. By merging innovative IT solutions with traditional values, this research not only propels economic growth in Mandalika but also sets a scalable and replicable model for similar developments globally, showcasing the transformative power of information technology in regional development.

Keywords: Digital Collaborative Platform, Local Wisdom, Economic Revival, Sustainable Growth, Cultural Reverence.

1. Introduction

Over the last decade, the globe experienced an accelerated pace in digital transformation, fundamentally altering how businesses operate and market their products and services. This wave of digitalization has not bypassed Indonesia, a country at the forefront of embracing technology to bolster economic growth and societal progress. Within this landscape, the Mandalika region, nestled in the picturesque island of Lombok, has blossomed into a vibrant tourist hub teeming with opportunities waiting to be harnessed through innovative digital strategies [1]. Mandalika, renowned for its rich cultural heritage, is on the cusp of a digital revolution, where integrating local wisdom with state-of-the-art marketing platforms can unlock unprecedented avenues for economic revitalization and cultural preservation.

The emergence of collaborative marketing platforms and the expanding worldwide digital scene pave the way for a revolutionary strategy for Mandalika local company promotion [2]. The notion of collaborative marketing has gained popularity recently and is based on several stakeholders collaborating to create a single marketing front through their combined efforts. The creation of a one-stop shop for digital collaborative marketing is envisioned against this background. This platform is intended to serve as the cornerstone for promoting local expertise through digital storytelling and fostering collaborations. [3].

Mandalika stands as a testimony to the region's vibrant heritage. It is this local wisdom that the proposed digital platform seeks to leverage, creating a symbiotic relationship between technology and tradition, thereby fostering a marketing approach that is not only innovative but also deeply rooted in the cultural ethos of the region [4]. The endeavor is grounded in the belief that a marketing strategy that respects and promotes local wisdom can offer a unique selling proposition, setting it apart in a competitive landscape [5]. However, despite the promising prospects, the current state of marketing platforms in Mandalika reveals a significant gap. Existing platforms operate in silos, failing to foster collaboration and synergy among different stakeholders. Moreover, the integration of local wisdom into these digital platforms remains largely untapped, representing a reservoir of potential that can steer the region towards economic resurgence and societal development [6]. The research delineated a strategy to bridge this gap, venturing into uncharted territories of harmonizing modern digital strategies with the rich tapestry of local traditions to foster economic growth [7]. Unlike previous studies that primarily focused on either technological advancements or cultural preservation in isolation, this study proposes an integrated approach that leverages digital collaborative marketing platforms to not only promote local products but also to embed the cultural essence of Mandalika within the digital marketplace.

Steering towards the objectives that guided this extensive exploration, this study sought to lay down a robust blueprint for a digital collaborative platform grounded in the principles of communal growth and cultural enrichment [8]. The envisioned platform would facilitate marketing collaborations and serve as a repository of Mandalika's cherished traditions, thereby crafting a narrative that is as enriching as it is commercially viable [9]. The initiative was driven by a desire to foster a community-driven approach to marketing, where local businesses, artisans, and stakeholders could find a harmonious space to collaborate and grow, painting a canvas that is vibrant with the colors of local wisdom and the strokes of modern technology [10].

The justifications for embarking on this research journey were manifold. At its core, the study was grounded in a realization of the untapped potential residing in the intricate mosaic of Mandalika's cultural heritage and the dynamic digital landscape [11]. By fostering a space where technology met tradition, the research aspired to craft a platform offering a revitalized approach to marketing, enhancing the economic landscape of Mandalika through a symbiotic relationship grounded in respect and reverence for local wisdom [12]. The endeavor held promise, not just as a beacon of innovation but as a strategy steering Mandalika towards a future brimming with economic prosperity and cultural recognition on a broader spectrum [13]. Yet, as with all ventures stepping into relatively unexplored domains, the study embraced both vast opportunities and inherent challenges. The scope of the research extended to the theoretical foundations and potential implications of the collaborative digital platform, delving deep into the realms of what could be achieved through a harmonious blend of technology and tradition [14]. It presented a vision where digital narratives could weave stories grounded in local wisdom, offering a unique selling proposition in a market saturated with generic marketing strategies [15]. Furthermore, the contribution and novelty of this research lie in its dual focus on economic revitalization and cultural preservation through implementing a One-Stop Digital Collaborative Marketing Platform. By utilizing the System Usability Scale (SUS) for rigorous evaluation, the research provides empirical evidence of the platform's efficacy in meeting diverse user needs, demonstrated by compelling usability scores from street vendors and the Tourism Awareness Group (Pokdarwis: Kelompok Sadar Wisata). This unique approach sets a scalable and replicable model for similar developments globally, showcasing the transformative power of information technology in regional development while respecting and promoting the unique cultural heritage of Mandalika.

This research paves the way for future explorations, setting the stage for further studies to actualize the platform and navigate the complex dynamics of digital marketing with an approach rooted in local wisdom [16]. A form of possibility that can be done is to apply a method that is easily understood by many parties. The method is design thinking [17]. This method emphasizes empathy for Mandalika's economic participants, using continuous iteration to innovate aligned with local wisdom. The paper will detail the development of the proposed digital collaborative marketing platform, guiding readers through relevant literature for theoretical context and the methodologies used for its conceptualization. The paper presents a detailed discussion on potential benefits and implications, concluding with synthesizing key findings. This offers comprehensive insights into innovative strategies leading Mandalika towards economic prosperity and cultural enrichment [18].

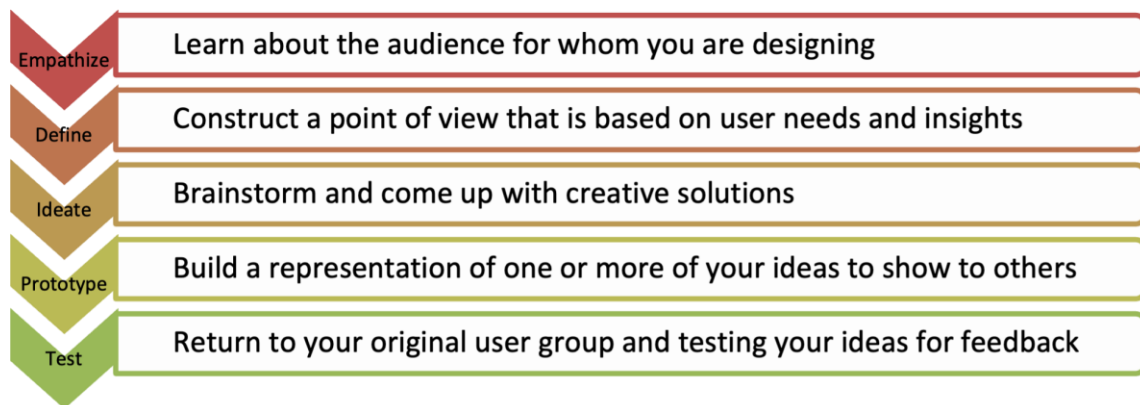


Figure 1. General 5-Step Design Thinking Process

2. Research Methods

In Mandalika, a region rich in culture and tradition, developing a digital marketing platform required a method focused on empathizing with end-users—local artisans, businesses, and the community. The methodology chosen was Design Thinking, a human-centric approach aligning with the goal of creating a platform reflective of Mandalika's local wisdom. Characterized by iterative stages of understanding, defining, ideating, prototyping, and testing, this approach aimed to deliver a technologically sound solution infused with local sensibilities, fostering a digital ecosystem in harmony with Mandalika's cultural essence.

2.1. Justification of the Choice of Method

This study aimed to digitally manifest Mandalika's cultural heritage, not just as a marketing tool but as a vibrant cultural representation. A deep user immersion method was essential, emphasizing empathy and understanding users' needs and aspirations. Design Thinking was chosen for its structured, yet flexible approach, ideal for creating a platform infused with local wisdom. This approach prioritizes understanding user context and needs at the core of the design process. Design Thinking led to an exploratory and iterative journey, with a focus on continuous feedback from end-users to ensure the platform's dynamism and responsiveness. It fostered collaboration, allowing diverse stakeholders to share ideas, making the platform genuinely reflective of Mandalika's community. The methodology embraced immersive research methods, such as ethnographic studies and in-depth interviews, which are vital for capturing the local essence and ensuring the platform serves as a digital home rich in Mandalika's narratives and traditions. Overall, Design Thinking was chosen to seamlessly blend technology with tradition, creating a space for Mandalika's stories to resonate in a modern context, engaging users in a way that honors and enriches the local cultural heritage.

2.2. Justification of the Choice of Method

In our quest to develop a collaborative marketing platform embodying Mandalika's local wisdom, the Design Thinking methodology was pivotal [19], guiding us through stages that encouraged innovation while honoring the region's cultural richness. As depicted in Figure 1, we explore Design Thinking's phases, each enriching the platform's conceptualization.

2.2.1. Empathize

The research delved into Mandalika's essence in this phase, engaging closely with its culture and traditions [20]. This involved qualitative techniques like interviews, focus groups, and ethnographic studies to understand the local community deeply. Interacting with artisans and businesses, the research gathered insights into Mandalika's vibrant life, aiming to create a platform that serves not merely as a tool but as a digital home resonating with local wisdom.

2.2.2. Define

Following the empathize phase's deep dive into Mandalika's cultural and economic landscape, the project moved to the definition stage. This pivotal phase involved synthesizing the collected data into clear problem statements and user needs. Through detailed analysis, the team identified patterns, extracted stories, and drew correlations to pinpoint the core challenges the platform sought to solve [21]. This stage featured numerous brainstorming sessions with a multidisciplinary team of researchers, designers, and local stakeholders. Together, they transformed the research findings into actionable insights, fostering a collaborative atmosphere where diverse perspectives merged. This rich insight compilation guided the platform's development, ensuring it remained focused yet deeply connected with the vibrant community it aimed to support.

2.2.3. Ideate

Entering the ideation phase, the team engaged in dynamic brainstorming and collaborative workshops, diving into creative exploration to devise innovative solutions that resonate with Mandalika's local wisdom. This stage saw the initiation of design sprints, a process encouraging quick prototyping of ideas inspired by insights from earlier phases. It was a fertile ground for creativity, where technology and local knowledge merged to conceive solutions bridging tradition with modernity, aiming to reflect Mandalika's rich cultural essence in the envisioned platform. [22].

2.2.4. Prototype

As ideas solidified in the ideation phase, the project moved to prototyping, turning concepts into tangible prototypes and offering a preview of the envisioned digital platform. A team of designers, developers, and local experts collaborated to create initial models, from wireframes to interactive prototypes, each bringing the platform closer to reality [23]. The prototype process involved 30 local craftsmen, one business owner, and 15 community representatives. Feedback from these stakeholders was crucial in refining the prototypes, blending technology with tradition to mirror Mandalika's cultural vibrancy. The iterative process aimed to create an intuitive and user-friendly platform—a space both familiar and innovative, where Mandalika's stories find modern expression. Local craftsmen provided insights that enabled the platform to incorporate features such as information technology usage in sales, tracking best-selling items, and viewing sales reports. The business owner's input focused on enhancing sales capabilities, which were integrated to support increased business activity. Community representatives contributed to the platform's functionality by suggesting features that would allow them to manage activities in the Modern Market, monitor sales by street vendors, and assist vendors in sales and promotion efforts. This comprehensive feedback ensured a user experience deeply resonant with the community, fostering a digital environment where tradition and modern technology coalesce seamlessly [24].

2.2.5. Test

In the Design Thinking process's final stage, the project entered the testing phase, where prototypes were presented to a select user group for feedback. This phase was crucial for refining the platform, ensuring it resonated with users' needs and preferences. Through rigorous usability testing, users interacted with the platform in real scenarios, providing feedback via focus groups, interviews, and surveys. This feedback was analyzed to pinpoint strengths and areas for improvement, leading to continuous refinements [25]. The testing phase engaged users as co-creators, integrating their feedback to develop a platform that merges technology with Mandalika's cultural heritage. This effort aimed to seamlessly unite tradition and innovation, anchoring the experience in local wisdom. The culmination of the Design Thinking process unveiled a digital marketing platform deeply reflective of Mandalika's culture. Through comprehensive understanding, creativity, and rigorous testing, the platform emerged as more than just a marketing tool—it became a digital hub for the community, translating Mandalika's vibrant culture into a contemporary medium. This digital space honors and showcases local wisdom, offering a user experience that is both enriching and culturally immersive. [26].



Figure 2. Smart Booth Implementation

3. Result and Discussion

The project, influenced by Design Thinking, resulted in an Android app—a digital marketing platform that integrates with the NTB mall app (ntbmall.com), showcasing West Nusa Tenggara's economy and culture. It emphasizes local artisans' products, merging technology with the region's vibrancy. This section explains the detailed results and analysis related to our research.

3.1. Product Analysis Through the Lens of Design Thinking

Embarking on the mission to craft a collaborative marketing platform that reverberates with the rich cultural tapestry of Mandalika Lombok, it was imperative to employ a methodology that is deeply grounded in understanding and empathizing with the local community [27]. The Design Thinking approach served as the scaffolding for this project, with each phase echoing a deep respect and understanding of Mandalika's heritage. Let us delve into each phase to understand how the vibrant Mandalika culture was woven into the very fabric of the digital platform.

a. Empathize

In the empathize phase, the team ventured into the heart of Mandalika, absorbing the vibrant cultural ethos that characterizes Lombok's society. This deep connection facilitated the incorporation of features that resonate with the narratives, traditions, and local wisdom of Mandalika Lombok. This phase fostered a foundation grounded in authenticity and respect for the rich cultural tapestry of Mandalika. At the empathize stage, it is done to several people who represent each user involved in the system. These people include street vendors, tourism awareness groups, and tourists. Stages passed by observation, interviews and forum group discussions.

b. Define

As the journey transitioned into the define stage, the core of Mandalika Lombok's culture was brought to the fore. This phase was characterized by defining the structural elements of the app in a way that mirrors the organizational structure of traditional Mandalika markets, fostering a digital space where the local wisdom and traditional marketplace ethos found a modern expression. Here, the vibrant narratives of Mandalika took center stage, guiding the framework of a platform that is deeply respectful and representative of Mandalika's rich heritage. At the define stage, problem-solving is also carried out for users

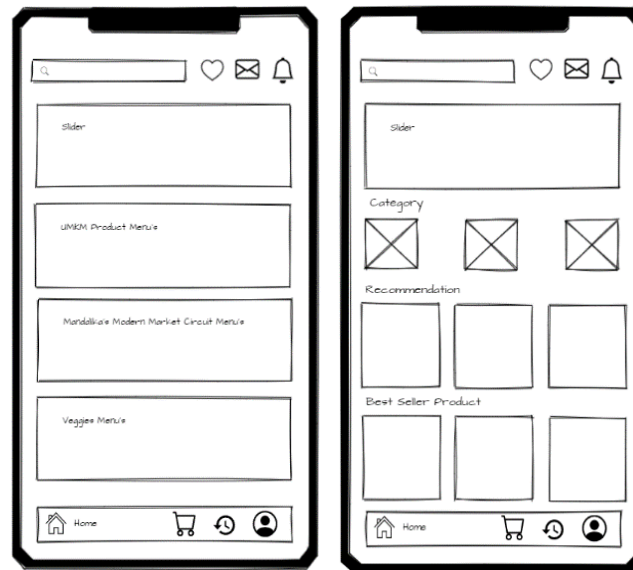


Figure 3. Mock up implementation of the application

who will be involved in the system and application. The problems that are solved are as follows:

1. For Street Vendors
 Street vendors get a booth that can be used to sell their merchandise. The booth is also not an ordinary booth, but a smart booth that is integrated with the NTB Mall application. The picture of the smart booth can be seen in Figure 2.
2. For the Tourism Awareness Group
 The tourism awareness group is the person in charge of implementing activities to realize economic defense in the Mandalika Lombok region. The number of members of the Tourism Awareness Group (PokDarwis) involved is 30 people with an adequate understanding of technology. Tourism awareness groups need a system that will assist in monitoring street vendors' financial records.
3. For tourists
 Tourists who will vacation in Mandalika Lombok are domestic and foreign tourists with various backgrounds. Tourists will get a shopping experience in one stop collaborative marketing, which will help tourists in getting local crafts using only technology.

c. Ideate

During the ideate phase, the team embraced the rich cultural narratives of Mandalika Lombok, drawing inspiration from the vibrant traditions, local arts, and crafts to ideate features that offer a rich and immersive user experience [28]. Whether it was incorporating elements of traditional Mandalika design into the user interface or crafting features that echo the vibrant rhythms of Mandalika's cultural landscape, this phase fostered innovation grounded in tradition.

d. Prototype

The digital platform's deep integration of Mandalika Lombok's rich cultural fabric was demonstrated throughout the development phase. Features were developed through iterative procedures, each aspect reflecting the rich cultural traditions and traditional wisdom of Lombok, to provide users a glimpse into the vivid world of Mandalika. It was a cooperative area where history and technology collided, a digital environment that accurately captured the rich cultural legacy of Mandalika Lombok. Low fidelity prototyping

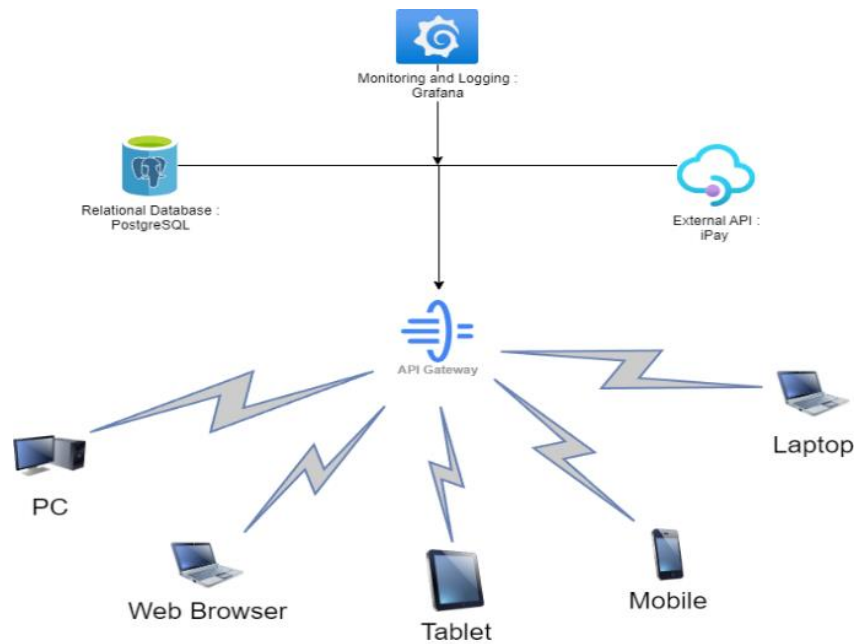


Figure 4. Dashboard and Personalized Recommendation Pages

is the method used at this stage of development. The low-fidelity prototype approach was chosen since it is more comprehensible for a wider range of consumers. Figure 3 displays some instances of mock up prototypes that have been created.

e. Test

In the testing phase, the collaborative marketing platform underwent rigorous evaluations, with the vibrant community of Mandalika Lombok becoming a pivotal part of the refinement process. Here, the people of Mandalika were not just users but became co-creators, their insights and feedback serving as the guiding force in honing a platform that stands as a digital embodiment of Mandalika Lombok's rich cultural heritage, promising an enriching user experience grounded in local wisdom.

As we reflect upon the journey undertaken through the lens of Design Thinking, it is evident that the collaborative marketing platform stands as a harmonious marriage of tradition and technology. Each phase of the approach nurtured a product that reverberates with the vibrant rhythms of Mandalika Lombok's rich cultural tapestry, offering a digital space where the local wisdom finds a modern expression, promising a user experience that is not only enriching but deeply rooted in the cultural heritage of Mandalika Lombok.

3.2. Integration with the NTB Mall Application

The project's integration with the NTB Mall app, inspired by Design Thinking, has created a cohesive digital ecosystem that enhances user experiences and showcases local businesses with a story-driven approach. This not only personalizes shopping but also infuses it with Mandalika's local wisdom, allowing users to discover the stories behind products. Virtual market booths mirror Mandalika's vibrant markets, offering a digital representation of physical stalls and highlighting Mandalika's cultural heritage. The platform improves user experience with easy navigation across booths, fostering personal connections and simplifying shopping with a single transaction feature for purchases from multiple booths. Figure 4 shows the integration architecture our proposed system by using APIs for integration. This advancement supports the local economy and takes a significant step towards an immersive, user-friendly digital marketplace enriched with local culture and craftsmanship.

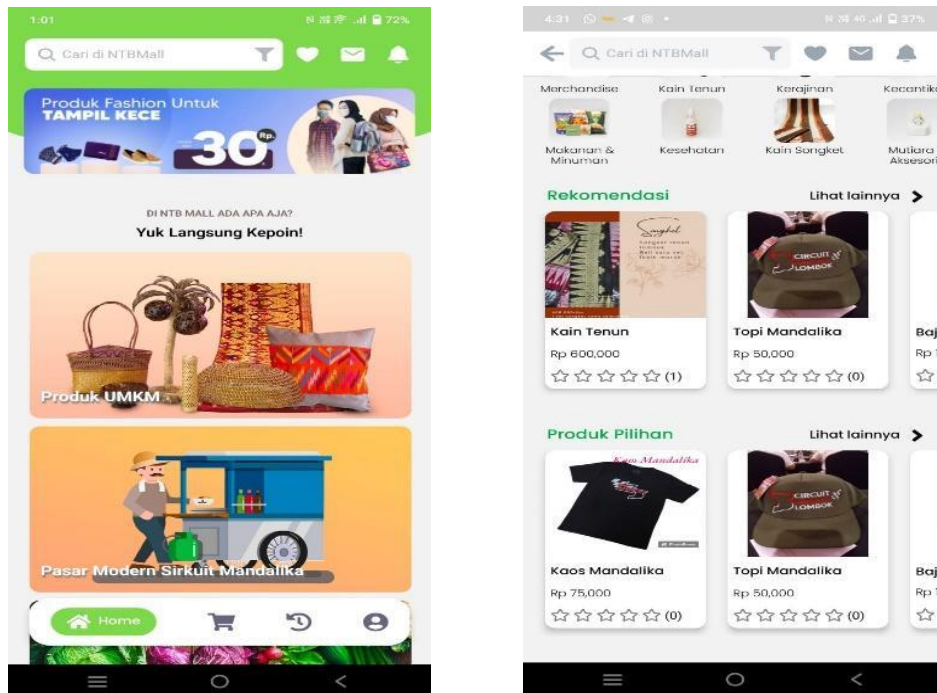


Figure 5. Dashboard and Personalized Recommendation Pages

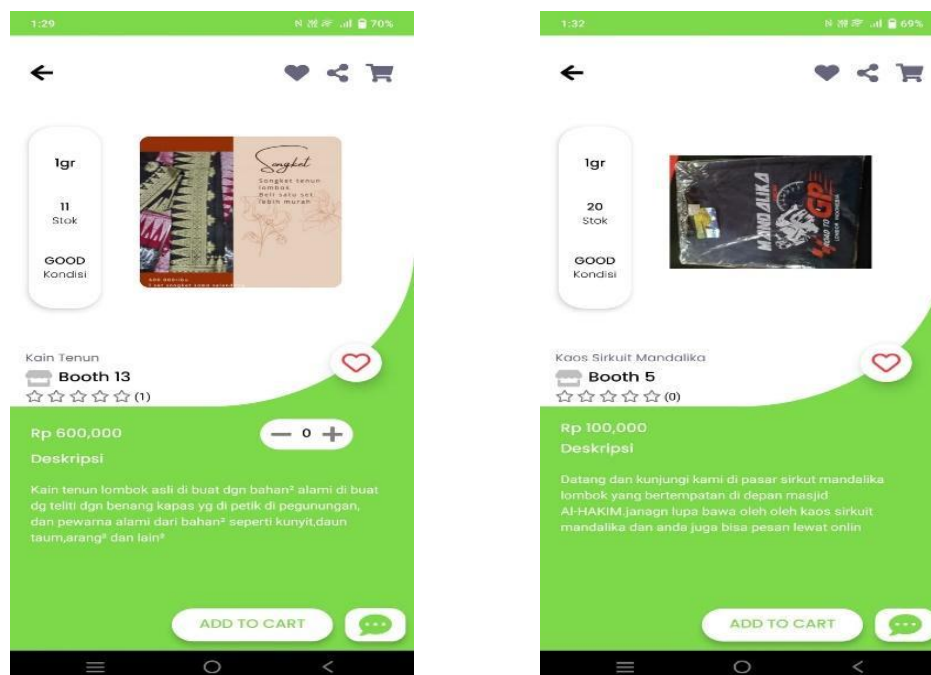


Figure 6. Story Telling Feature Pages.

The integration brings forth additional benefits including:

- a. **Personalized Recommendations:** Leveraging data analytics, the application offers personalized recommendations, guiding users to products that align with their preferences and shopping history, thereby facilitating a tailored shopping experience. Figure 5 shows an example of how our personalized recommendation pages look.

- b. Storytelling Feature: Each product comes with a story, a narrative that delves into the origins of the product, the craftsmanship involved, and the local wisdom it embodies, offering a shopping experience that is rich and immersive. Figure 6 shows the example of how our storytelling feature pages look.
- c. Secure Payment Gateways: Ensuring a safe and secure shopping experience with integrated secure payment gateways, fostering trust and reliability in the digital marketplace. Figure 7 shows how we integrate our system with a secure payment method for customers.

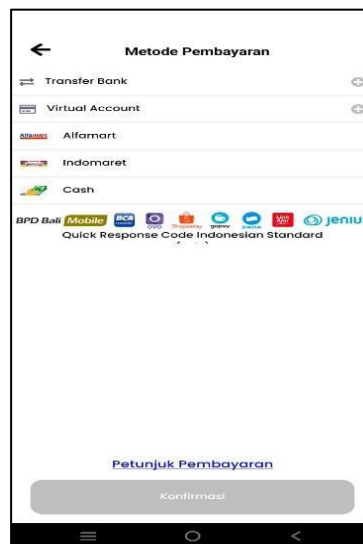


Figure 7. Payment Gateways Page.

- d. Booth sales: "Selling in a booth" is the implementation of defining user personas. Thirty street vendors have been provided with their respective booths for selling. The booths have been tailored to meet their needs. Figure 8 shows details of the carts that customers can choose from when shopping.

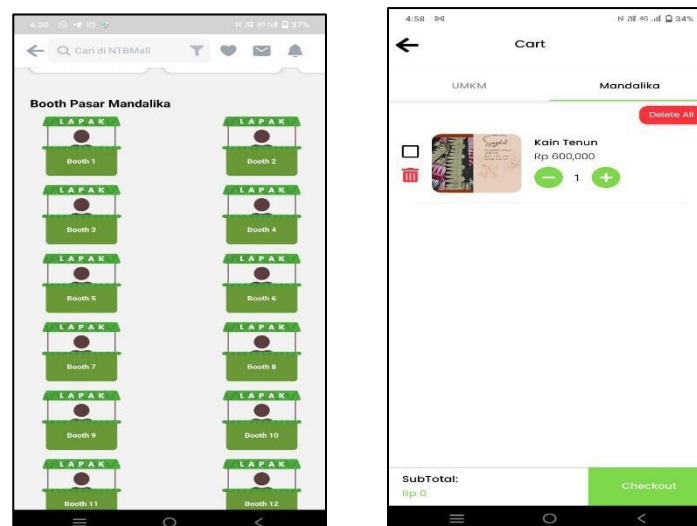


Figure 8. Community Forums Pages

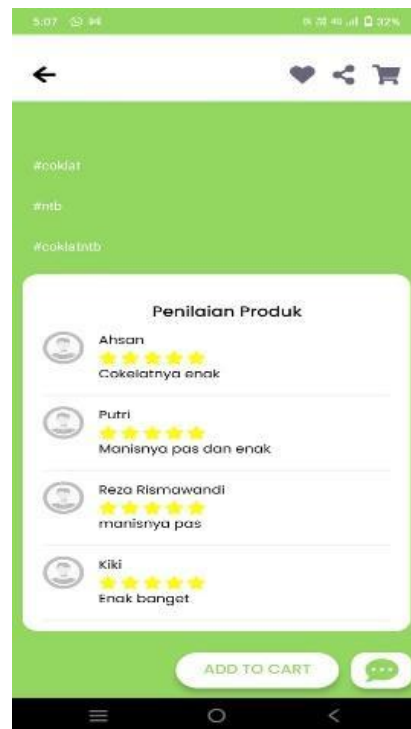


Figure 9. Feedback and Reviews Page

- e. Feedback and Reviews: Users can share feedback and reviews, fostering a transparent and collaborative digital space where constructive feedback encourages continuous improvement and celebrates excellence in craftsmanship. Figure 9 shows our feedback and reviews page.

In essence, the integration with the NTB Mall application stands as a monumental achievement in the journey of crafting a digital collaborative marketing platform. It brings to the fore a harmonious blend of tradition and technology, offering a digital marketplace that is not just a shopping platform but a vibrant community space where the rich narratives of Mandalika come alive, fostering connections, nurturing local businesses, and offering a shopping experience that is both enriching and deeply respectful of the local wisdom.

3.3. System Usability Scale Analysis

In the testing phase, the System Usability Scale (SUS) method is employed. SUS is a testing approach used to evaluate the usability of a system. Among the advantages of SUS is its flexibility and adaptability to user needs [29]. SUS can also accommodate user requirements based on their perceptions of the product [30]. In this study, testing was conducted from the perspective of street vendors and Tourism Awareness Group (Pokdarwis). The users who conducted testing from the perspective of street vendors amounted to 23 individuals, while for Tourism Awareness Group (Pokdarwis), there were 7 individuals. The questions posed to both user groups were filtered based on their needs and understanding. The questions were also adjusted according to the guidelines provided by the System Usability Scale (SUS). The results of the testing are as follows:

- For street vendors, the obtained score is 72.8. According to the guidelines provided by SUS, a score within the range of 70-84 indicates good usability of the system.
- For Tourism Awareness Group (PokDarWis), the obtained score is 85. This score falls within the SUS range, signifying that the system has achieved excellent usability.

The results obtained from the System Usability Scale (SUS) testing present a compelling case for the profound impact of information technology in societal development, particularly in the context of local economies. The high SUS scores - 72.8 for street vendors and an exceptional 85 for Tourism Awareness Groups (PokDarWis) - are not merely numerical values but a testament to the platform's effectiveness in meeting the specific needs of its users. This indicates a successful integration of technology with local cultural nuances, which is a critical factor in the adoption and sustainability of IT solutions in community-centric markets.

Moreover, the platform's ability to accommodate and reflect the perceptions and requirements of its diverse user base highlights its versatility and user-centric design. This is particularly important in a setting like Mandalika Lombok, where the richness of local culture and tradition forms an integral part of the marketplace dynamics. By facilitating a digital space that is not only transactional but also community-driven and story-centric, the platform significantly enhances the visibility and marketability of local products. This is crucial in bridging the gap between local businesses and a broader audience, offering an immersive shopping experience that is rooted in authenticity and local wisdom.

The research emphasizes the critical role of customized IT solutions in spurring economic growth and cultural preservation. The platform exemplifies the potential of technology to empower communities, enhance local economies, and safeguard cultural heritage, establishing a standard for future technology projects focused on societal improvement. The findings reveal that the platform is not only beneficial for society by bringing Mandalika Lombok's vibrant stories to life and fostering community connections but also by celebrating its rich cultural legacy. It transforms into a digital marketplace that transcends mere transactions, promoting community engagement, storytelling, and showcasing the meticulous craftsmanship behind each product, thus providing a deeply engaging and culturally rich shopping experience. Additionally, the platform is invaluable for local businesses, offering them a wider audience while incorporating Mandalika Lombok's unique narratives into every interaction, creating a marketplace that is authentic and deeply rooted in local wisdom.

4. Conclusion

As this exploration concludes, we've seen how a collaborative marketing platform, integrated with the NTB Mall app, represents a significant step in merging technology with Mandalika Lombok's cultural heritage. This journey, rooted in the Design Thinking approach, has yielded a digital space that vibrates with the essence of Mandalika Lombok's culture, embedding its rich traditions, stories, and wisdom into the digital realm. The integration with the NTB Mall app marks a harmonious fusion of tradition and modernity, creating a marketplace that not only facilitates transactions but also offers a rich, immersive shopping experience that celebrates the region's cultural heritage. Features like virtual market booths and storytelling elements transform the marketplace into a space that's both deeply personal and connected to Mandalika's cultural roots.

The platform's warm reception from the Mandalika community, supported by positive feedback and encouraging data, highlights its potential to create a vibrant, collaborative digital ecosystem that honors Mandalika Lombok's narratives and traditions. This is evidenced by the results of the System Usability Scale (SUS) testing, which yielded scores of 72.8 for street vendors and 85 for the Tourism Awareness Group (Pokdarwis), indicating that the application is well-received and effectively meets their needs. It stands as a digital home for the community, where local wisdom is respected and celebrated. Looking ahead, the platform is poised to invigorate the local economy, embodying innovation that mirrors the cultural vibrancy of Mandalika Lombok. It's envisioned not merely as a marketing tool but as a digital haven for the community, a testament to the power of blending technology with tradition. This research points towards a future where technology bridges communities to their cultural heritage, fostering a digital space that's respectful, representative, and enriching, grounded in the vibrant cultural heritage of Mandalika Lombok.

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