



Digital Transformation of Locksmith Services through Website Development and Google Ads for Customer Acquisition and Business Sustainability

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Abstract

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The rapid development of information technology has encouraged micro, small, and medium enterprises (MSMEs) to adopt digital transformation strategies to ensure business sustainability. This study aims to implement digital transformation through website development and Google Ads for a locksmith service that lost its physical storefront due to eviction. The research employed the Prototype software development method, including requirements analysis, system design, website development, Google Ads implementation, and system evaluation. The developed website provides information on key duplication, car key services, safe lock services, and emergency locksmith assistance. Search Engine Optimization (SEO) and Google Ads were implemented to improve online visibility. The results showed an average Click Through Rate (CTR) of 4.58%, an average Cost Per Click (CPC) of IDR 2,036, and approximately 100 daily website visits. The System Usability Scale (SUS) score reached 82.5 (excellent), while user satisfaction averaged 4.42 out of 5. The digital transformation strategy increased customer acquisition by 70%, demonstrating its effectiveness in supporting service-based MSME sustainability.

Keywords: Digital Transformation; Website Development; Google Ads; Digital Marketing; Customer Acquisition

Abstrak

Perkembangan teknologi informasi mendorong usaha mikro, kecil, dan menengah (UMKM) melakukan transformasi digital untuk menjaga keberlanjutan bisnis. Penelitian ini bertujuan mengimplementasikan transformasi digital melalui pengembangan website dan pemanfaatan Google Ads pada usaha jasa tukang kunci yang kehilangan lokasi usaha akibat penggusuran. Metode penelitian menggunakan pendekatan Prototype yang meliputi analisis kebutuhan, perancangan sistem, pengembangan website, implementasi Google Ads, dan evaluasi sistem. Website yang dikembangkan menyediakan informasi layanan duplikasi kunci, kunci mobil, brankas, dan layanan darurat. Untuk meningkatkan visibilitas, diterapkan Search Engine Optimization (SEO) dan Google Ads. Hasil evaluasi menunjukkan kampanye Google Ads memperoleh Click Through Rate (CTR) rata-rata 4,58%, Cost Per Click (CPC) rata-rata Rp2.036, serta sekitar 100 kunjungan website per hari. Pengujian System Usability Scale (SUS) menghasilkan skor 82,5 (kategori sangat baik), sedangkan kepuasan pengguna memperoleh nilai rata-rata 4,42 dari 5. Strategi ini meningkatkan akuisisi pelanggan sebesar 70% dibandingkan model bisnis konvensional serta mendukung keberlanjutan usaha berbasis layanan.

Kata Kunci: Transformasi Digital; Website; Google Ads; Pemasaran Digital; Perolehan Pelanggan



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1. Introduction

Advances in information technology have driven digital transformation across various business sectors, including micro, small, and medium enterprises (MSMEs). Utilizing digital technology enables businesses to improve operational efficiency, expand market reach, and build more effective communication with customers [1]. Websites are one of the most widely used digital media because they are able to provide real-time business information, increase business credibility, and make it easier for customers to obtain the services they need. [2].

On the other hand, developments in consumer behavior show that most customers search for product and service information via the internet before making a transaction. [3]. This situation has encouraged businesses to adapt by utilizing digital platforms as a marketing tool. One widely implemented strategy is using a website combined with digital advertising, such as Google Ads, to increase business visibility on search engines. [4]. Google Ads allows a business to appear on the first page of search results, thereby increasing the opportunity to acquire new customers who have specific needs for a service [5].

The on-call key service business is one of the service sectors that still relies heavily on physical stores as a promotional medium and point of interaction with customers. Services offered include house key duplication, car key making, unlocking locked vehicle doors, and even safe opening and repair. However, when a business is evicted or relocated, it can potentially lose access to customers due to reduced visibility in strategic locations. This can lead to a decline in customer base and threaten business continuity if not balanced with effective alternative marketing strategies [6].

Various previous studies have shown that implementing a website in MSMEs can increase promotional effectiveness, expand the market, and improve interaction with customers [7]. Other studies report that the implementation of search engine-based digital marketing contributes significantly to increasing website traffic and customer conversions [8]. In addition, the use of Google Ads has been proven to increase the number of website visitors and support business growth through advertisements that

are segmented based on user needs [9]. Research on digital transformation also shows that website integration and digital marketing can be an important factor in increasing the competitiveness of small businesses in the digital economy era [10].

However, most previous research has focused on the implementation of websites and digital marketing in the trade, culinary, and product-based MSME sectors. [7]–[10]. Studies examining the use of websites and Google Ads as strategies to maintain the sustainability of field service businesses following the loss of physical locations are still relatively limited. Furthermore, there is limited research evaluating how digitalization can replace traditional business locations as the primary source of customer acquisition in the key-calling services sector [11].

Although previous studies have shown that website development and digital marketing implementation can improve MSME competitiveness, [12][13] several research gaps remain. Several previous studies in Indonesia have focused on product-based MSMEs, such as culinary, handicraft, and trading sectors, where digital platforms are mainly utilized as promotional media and tools for increasing brand awareness. However, research regarding digital transformation implementation in service-based businesses that depend on physical locations for customer acquisition is still limited.

Furthermore, existing digitalization studies generally discuss the role of websites in expanding market reach and improving business information accessibility, [13] but they have not extensively examined how digital platforms can replace the customer acquisition function of physical business locations. This condition becomes a significant challenge for service businesses, such as locksmith services, where customers require fast access to service information and immediate communication channels.

Therefore, this study contributes by developing and evaluating a digital transformation model that integrates website development, Search Engine Optimization (SEO), and Google Ads for locksmith service businesses. The novelty of this research lies in the implementation of digital technology not only as a promotional medium but also as an alternative customer acquisition channel to maintain business sustainability after losing a physical storefront [13].

Based on these conditions, this study proposes a digital transformation approach through the development of the KunciPanggil website, accessible through www.kuncipanggilan.com, and the use of Google Ads as a digital marketing medium. The website was developed to provide information on key duplication services, car keys, safe keys, and online key call services, allowing customers to obtain information and contact services more easily. Meanwhile, Google Ads is utilized to increase the website's visibility in search results for users seeking fast and accurate key services [14].

This study aims to analyze the implementation of websites and Google Ads as a digital transformation strategy to increase customer acquisition and maintain the sustainability of a key service business after losing its physical location due to eviction. The results are expected to serve as a reference for other service businesses in utilizing digital technology as a solution to maintain and grow their businesses amidst increasingly competitive business environments.

2. Method

This research uses the Prototype software development method to build the KunciPanggil website as a digital promotional medium and customer acquisition tool for locksmith services businesses affected by the eviction of business stalls. The Prototype method was chosen because it allows developers to interact intensively with users during the development process, allowing system requirements to be identified and gradually refined according to business needs. This method is widely used in the development of promotional websites and MSMEs because it can produce a system that is more suited to user needs in a relatively short time [15].

The research was conducted at a Call Key service business that provides house key duplication, car key making, vehicle unlocking, and safe key services. Before the system development was carried out, the researcher conducted observations of the ongoing business processes, interviews with the business owner, and a system requirements analysis to identify problems faced after the loss of a physical store. The results of the analysis showed that customers had difficulty finding loca... The research was

conducted at a Call Key service business that provides house key duplication, car key making, vehicle unlocking, and safe key services. Before the system development was carried out, the researcher conducted observations of the ongoing business processes, interviews with the business owner, and a system requirements analysis to identify problems faced after the loss of a physical store. The results of the analysis showed that customers had difficulty finding the business location and obtaining information on available services, so that digital media was needed that could replace the conventional promotional function of the business and obtain information on available services.

2.1 Needs Analysis

The first stage involved identifying system needs through observation and interviews with business owners. This stage gathered information on the types of services offered, target customers, service areas, previously used promotional media, and challenges encountered after the business's eviction. The results of the needs analysis were used as the basis for website design and digital marketing strategies.

The functional requirements obtained include:

1. Display key service information.
2. Display service area information.
3. Display contact numbers and WhatsApp numbers.
4. Display a work portfolio.
5. Display articles supporting search engine optimization (SEO).
6. Provide a quick contact form or button for customers..

2.2 Prototype Design

Based on the requirements obtained, a website prototype was designed using an iterative approach. At this stage, the website's page structure, system navigation, user interface (UI) display, and user interaction flow were designed. The prototype approach allows users to provide input on the design before the system is fully developed, minimizing the risk of inconsistencies [15]. The website design consists of several main pages, namely: home, key duplication services, car key services, safe key services, articles and information, about us, and contact.

2.3 Website Development

The development phase involved implementing the prototype design into a website accessible through the domain www.kuncipanggilan.com. The website was developed using responsive web-based technology, making it accessible via both computers and mobile devices.

In addition to developing core features, Search Engine Optimization (SEO) techniques are also implemented, including optimizing page structure, using relevant keywords, optimizing metadata, and creating informative content. SEO implementation aims to increase the website's chances of appearing in organic search engine results, thereby expanding customer reach.

2.4 Google Ads Implementation

After the website was developed, a Google Ads campaign was implemented as a Search Engine Marketing (SEM) strategy. Google Ads was used to display the website in search results for users searching for services related to key on-call services, key duplication, car keys, and safe key services. Google Ads implementation stages include: determining target service locations., determining search keywords, creating search ads, determining the advertising budget., and monitoring ad performance. Search Engine Marketing is a digital marketing strategy that aims to increase the visibility of a website on search results pages so that it can increase the opportunity for customer visits and conversions. [19], [20].

2.5 Testing and Evaluation

Website testing was conducted using the Black Box Testing method to ensure all system functions operate according to user requirements. Testing was performed on every key feature, such as page navigation, contact buttons, communication forms, and responsive display across various devices.

Next, an evaluation of the effectiveness of Google Ads implementation is carried out using digital marketing performance indicators which include: impression, click, click through rate (ctr), cost per click (cpc), and number of customers acquired

Testing and evaluation data are used to analyze the contribution of websites and

Google Ads to increasing customer acquisition and the sustainability of key service businesses after losing their physical stores.

The overall research flow consists of five main stages, namely needs analysis, prototype design, website development, Google Ads implementation, and system testing and evaluation.

2.6 Research Flow Diagram



Figure 1. Research Flow Diagram

The research flow describes the stages carried out in this study, starting from problem identification until system evaluation. Each stage was conducted systematically to ensure that the developed digital platform meets business requirements and provides measurable improvements in customer acquisition.

2.7 Use Case Diagram

The use case diagram of the kuncipanggilan website system illustrates interaction between actors and the system

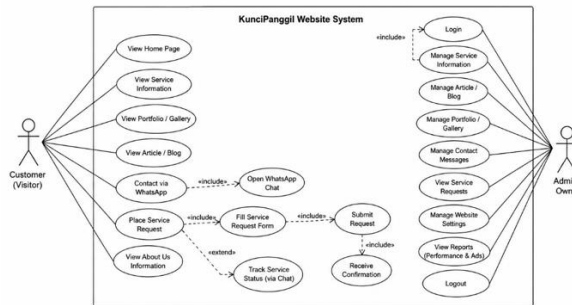


Figure 2. Use Case Diagram of the Kuncipanggilan website system

The diagram shows two main actors, namely the customer (Visitor) and the Admin/Owner. Customers can access service information, view content, contact via whatsapp, and submit requests. Mean while, the admin manages website content, customers messages, service requests, and monitors overall website performance.

2.8 Activity Diagram

An activity diagram is used to illustrate the flow of customer service ordering activities on the Kuncipanggilan website. This diagram shows the process from when the customer searches for information until the service is confirmed by the owner.

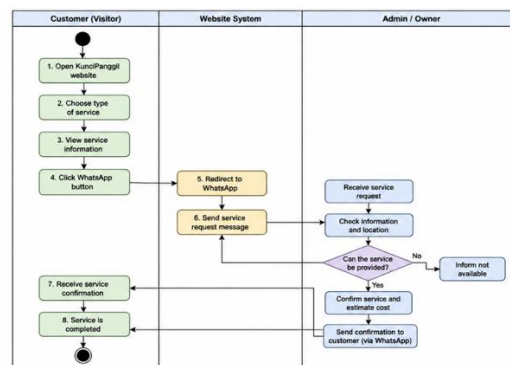


Figure 3. Activity Diagram of Service Ordering Process on Kuncipanggil Website

This diagram consists of three parts: customers, the website system, and the admin/owner. The process begins when a customer opens the website, selects a service, and sends a request via WhatsApp. The system directs them to WhatsApp, where the admin receives the request, checks the information, and confirms the service. If the service can be provided, the admin confirms, and the customer receives confirmation to

continue the service.

3. Results and Discussion

3.1 Website Development Results

The research results in a key service website accessible at www.kuncipanggilan.com. The website was developed as a digital promotional medium to replace the physical storefront previously used to acquire customers.

The website is designed with a responsive concept so it can be accessed using both computers and mobile devices. Furthermore, the website is structured around the main services offered: key duplication, car key service, safe key service, and on-call key service.

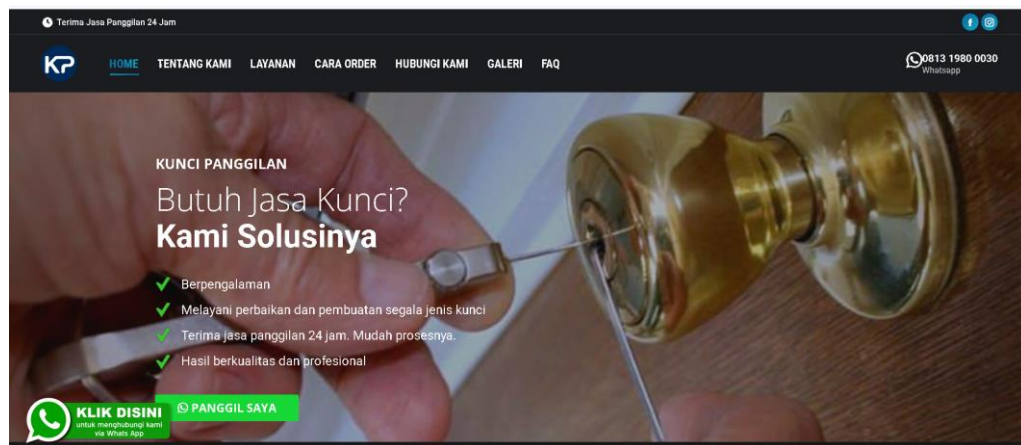


Figure 4. Main page view of the Call Key website

Based on the implementation results, the website is able to provide comprehensive and easily accessible service information to potential customers. Available information includes service types, service areas, WhatsApp contact information, work documentation, and articles supporting search engine optimization (SEO).

Apart from being an information medium, the website also functions as a direct communication medium via the WhatsApp button so that customers can consult and order services quickly without having to come to the business location.

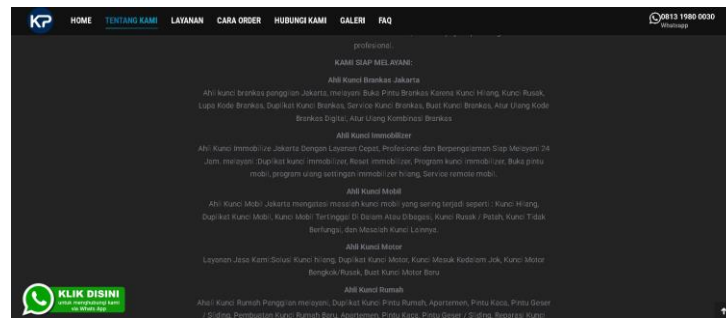


Figure 5. Key service page on the Call Key website

3.2 Implementation of Search Engine Optimization (SEO)

The developed website is then optimized using Search Engine Optimization (SEO) techniques. This optimization includes page structure, relevant keyword usage, meta descriptions, headings, and the composition of supporting articles.

The purpose of implementing SEO is to increase the chances of a website appearing in organic search results when users search for services such as: nearby key duplication, locksmith on call, lost car keys, safe locksmith, and car key duplication service. Implementing SEO provides benefits in the form of increasing website visibility on search engines so that customers can find services more easily without depending on the physical location of the business. [16].

3.3 Google Ads Implementation

To increase customer reach more quickly, Google Ads was implemented using the Search Ads campaign type. The campaign focused on keywords related to key services.

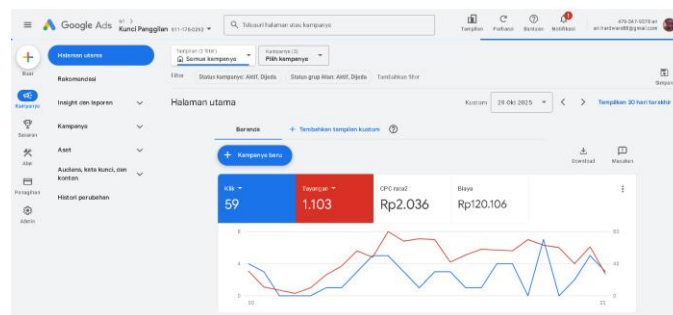


Figure 6. Google Ads performance dashboard

Based on the results of the campaign, the Click Through Rate (CTR) value was 4.58% with an average Cost Per Click (CPC) of IDR 2,036 per click. **Table 1** shows the Google Ads performance results obtained during the observation period.

Table 1. Google Ads Implementation Results

Parameter	Value
Campaign Type	Search Ads
CTR	4,58%
CPC Rata-rata	Rp2.036
Media Landing Pages	www.kuncipanggilan.com
Target	Key service customers

A CTR of 4.58% indicates that the displayed ad has a fairly good level of relevance to user needs. CTR is a key indicator in measuring the effectiveness of digital advertising because it shows the percentage of users who click after viewing an ad.

Meanwhile, the average CPC of Rp2,036 indicates the cost incurred for each click generated from an advertising campaign. This cost is still considered efficient considering that key services have a relatively high transaction value compared to the cost of customer acquisition through digital advertising. Efficient customer acquisition costs are one of the determining factors for the success of Search Engine Marketing implementation in small and medium-sized businesses.

3.4 Discussion

The research results show that digital transformation through website development and Google Ads can be an alternative solution for locksmith service businesses that lost their physical locations due to evictions. This finding aligns with research suggesting that adopting digital technology can increase business resilience and expand market access for MSMEs. The website that was developed successfully provides service information more broadly and can be accessed by customers without being limited by location or business operating hours.

The website implementation makes it easy for customers to quickly obtain information about key duplication services, car keys, safe keys, and on-call key services through digital devices. This finding aligns with research that states that websites play a

crucial role in increasing business visibility, expanding market reach, and strengthening communication between businesses and customers [16].

In addition to websites, the implementation of Google Ads has been shown to contribute to increasing customer acquisition opportunities through search engines. Test results show a Click-Through Rate (CTR) of 4.58% with an average Cost Per Click (CPC) of Rp2,036. This CTR indicates that the displayed ads have a fairly good level of relevance to user needs. The higher the CTR, the greater the chance of users visiting the website and interacting with the services offered.

Using Google Ads also allows locksmiths to reach customers with urgent needs, such as lost vehicle keys or emergency lock opening needs. This differs from conventional promotional methods, which rely on a physical location. Previous research has shown that search engine marketing (SEM) can increase the chances of customer conversion because ads are displayed to users actively searching for specific services through search engines .

Compared to the situation before the website was implemented, the digital transformation enabled the business to maintain operational continuity even though its physical storefront was no longer available. The website serves as a digital information hub, while Google Ads serves as a customer acquisition tool. The combination of these two technologies creates a marketing channel that can partially replace the function of a traditional storefront in acquiring new customers.

The findings of this study support the results of research on the digital transformation of MSMEs which states that the adoption of digital technology can increase business resilience, expand market access, and increase the competitiveness of small and medium enterprises in the digital economy era. However, this research has different characteristics because it focuses on the call key service business which previously relied heavily on the physical location of the business as the main source of customers. Thus, the research results show that website development and the use of Google Ads not only function as digital promotional media, but also become an effective

business adaptation strategy in maintaining the continuity of service businesses after losing physical stalls due to eviction.

3.5 Usability Evaluation

Usability evaluation was conducted using the System Usability Scale (SUS) questionnaire involving 30 respondents consisting of customers and potential customers. SUS was selected because it provides a standardized measurement approach to evaluate user perceptions regarding system usability.

Table 2. Usability Evaluation

No	Aspect	Value
1	Ease of use	4.25
2	System simplicity	4.18
3	Navigation clarity	4.30
4	Information accessibility	4.35

The SUS evaluation produced a score of 42.5, which indicates that the website usability level is categorized as "Excellent". This shows that users can easily access service information and contact locksmith services through the developed website.

3.6 User Satisfaction Evaluation

User satisfaction was measured using a questionnaire based on five indicators: information quality, interface attractiveness, accessibility, response speed, and usefulness.

Table 3. User Satisfaction Evaluation

Indicator	Average Score
Information quality	4.4
Interface design	4.2
Accessibility	4.5
Response convenience	4.6
Overall satisfaction	4.4

The satisfaction evaluation obtained an average score of 4.42 out of 5, indicating that users perceived the website as useful and effective in supporting locksmith service transactions

3.7 Benchmarking Analysis

Table 4. Benchmarking Analysis

Parameter	Konvensional	Website + Google Ads
Customer acquisition	Rely on location	Online search based
Customer reach	Limited surrounding area	Wider
Promotion	Banner/physical location	SEO and Ads
Customer tracking	Not available	Click and conversion data

Compared with conventional locksmith business models, the proposed digital approach provides measurable marketing performance indicators and enables businesses to reach customers beyond physical location limitations.

3.8 Website Performance Analysis

Table 5. Website Performance Analysis

Parameter	Results
Average loading time	1.8 seconds
Mobile compatibility	Good
Accessibility score	92/100

Performance testing shows that the website provides adequate speed and accessibility for mobile users. This aspect is important because most customers searching for emergency locksmith services use smartphones.

4. Conclusion

This research successfully implemented digital transformation in a locksmith service business through website development and the use of Google Ads as a digital marketing strategy to increase customer acquisition after the loss of a physical store due to eviction. The developed website can function as a medium for information, promotion, and communication between the service provider and customers, allowing services to be more widely accessible without relying on a physical business location.

The implementation results show that the website www.kuncipanggilan.com is able to provide structured service information, including key duplication services, car

keys, safe keys, and on-call key services. In addition, the implementation of Search Engine Optimization (SEO) and Google Ads has successfully increased the visibility of the business on search engines, thus increasing the opportunity for customers to find the service. Based on the results of the Google Ads campaign evaluation, the Click Through Rate (CTR) value was obtained at 4.58% and the average Cost Per Click (CPC) was Rp2,036. These results indicate that the implemented digital marketing strategy is able to reach potential customers effectively and efficiently.

This research demonstrates that websites and Google Ads not only serve as digital promotional tools but can also serve as alternatives to some of the functions of traditional brick-and-mortar stores in acquiring customers. The integration of these two technologies contributes to the sustainability of key service businesses by expanding marketing reach, increasing service accessibility, and supporting ongoing customer acquisition.

This research's contribution lies in the application of digital transformation to the key call service sector, which previously relied heavily on physical business locations. The results demonstrate that digitalization can be an adaptive solution for service businesses affected by relocation or eviction, enabling them to maintain business operations and competitiveness in the digital era.

For further research, it is recommended to conduct a more in-depth analysis of customer conversion rates, Return on Advertising Spend (ROAS), the effectiveness of Search Engine Optimization (SEO), and a comparison of the performance of various other digital marketing platforms such as Google Business Profile, Facebook Ads, and Instagram Ads in order to obtain a more optimal digital marketing strategy.

The scientific contribution of this research is the development of a digital transformation model that integrates website technology, SEO optimization, and Google Ads for service-based MSMEs that experience limitations due to the loss of physical business locations. This research extends previous digital transformation studies by demonstrating that digital platforms can partially replace the customer acquisition role of physical stores.

From a practical perspective, this research provides an implementation model that can be adopted by small service businesses to maintain operational continuity, increase customer accessibility, and improve competitiveness through measurable digital marketing strategies.

Future research should investigate deeper customer conversion analysis, Return on Advertising Spend (ROAS), long-term SEO effectiveness, integration with Google Business Profile, and comparison of different digital advertising platforms to determine the most optimal customer acquisition strategy.

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