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Dajawonta: A Convenient Platform for Skilled Services

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ABSTACT: This study presents **DajawonTa**, a web and mobile-based platform designed to connect residents of Cantilan with verified skilled service providers. The system enables service browsing, booking, communication, and transaction management through a user-friendly interface. Developed using PHP, MySQL, HTML, CSS, and JavaScript, the platform was evaluated using the ISO/IEC 25010 quality model. Results from users, service providers, and IT experts showed an overall **acceptable to highly acceptable** performance across functionality, usability, reliability, security, and portability. The findings indicate that DajawonTa effectively improves service accessibility and supports community-based digital service management.

I. INTRODUCTION

The rapid growth of digital technologies has transformed how communities access essential services. However, rural and semi-urban areas often lack centralized platforms for finding reliable skilled workers. In Cantilan, Surigao Del Sur, residents commonly depend on word-of-mouth and social media to locate electricians, plumbers, and other service providers, resulting in inefficiency and uncertainty.

To address this issue, **DajawonTa** was developed as a localized digital platform that connects residents with verified skilled workers through web and mobile applications. The platform aims to simplify service discovery, booking, and communication while supporting local workers' visibility and income opportunities. This study evaluates the system's performance, usability, and acceptability to determine its effectiveness as a community-based digital solution.
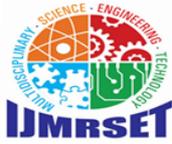
II. LITERATURE SURVEY

Digital platforms have become essential tools for improving access to skilled services by connecting clients and service providers through centralized and technology-driven systems. In many communities, particularly at the municipal level, residents continue to rely on informal methods such as personal referrals to locate skilled workers, resulting in limited choices, delays, and uncertainty in service quality. Studies emphasize that digitizing service discovery and transaction processes significantly enhances accessibility, efficiency, and transparency, especially in local service markets.

Research on digital service platforms shows that online and mobile-based systems reduce transaction time and improve coordination between users and service providers. Bötzow highlighted that home maintenance platforms streamline service requests and increase customer satisfaction by providing structured service listings and reliable worker information [1]. These findings demonstrate how digital platforms can overcome inefficiencies associated with traditional service-seeking practices, supporting the development of a localized skilled-services platform such as DajawonTa.

Mobile technology further enhances service accessibility, particularly in semi-urban and rural areas. Al Kendi found that mobile home repair applications improved inclusivity and user engagement by allowing clients to request services conveniently through handheld devices [2]. This supports the integration of mobile-responsive features in DajawonTa to ensure broader reach and usability among community members.

Studies on informal skilled labor emphasize that digital platforms improve worker visibility and income opportunities. Kayaoglu noted that skilled workers benefit from online marketplaces that provide rating systems and client feedback, fostering trust and accountability [3]. These mechanisms are essential components of DajawonTa, as they promote service quality and transparency.

Local system development studies also confirm the effectiveness of web-based maintenance and service platforms. Ruaya demonstrated that online booking and communication features improved service reliability and reduced delays [4]. Similarly, Tandoc *et al.* emphasized that rating and review systems enhance trust between users and service providers in skilled service platforms [5]. These findings collectively establish a strong foundation for the design and implementation of DajawonTa.

Table1. Summary of Relevant Literatures

No.	Paper Title	Author Name	Key Points	Remarks
1	HomeServe: Redefining Home Maintenance	Bötzow (2021)	Digital platforms improved efficiency and accessibility in home maintenance services through centralized service listings and structured requests [1]	Supports the use of an online platform for skilled services
2	Mobile Home Repair Applications for Inclusive Service Delivery	Al Kendi (2022)	Mobile-based applications increased accessibility and user engagement, particularly in local and semi-urban communities [2]	Justifies mobile integration in DajawonTa
3	Informal Skilled Labor and Digital Platforms	Kayaoglu (2021)	Digital marketplaces enhanced visibility, accountability, and income opportunities for skilled workers through rating systems [3]	Supports the inclusion of rating and review mechanisms
4	Development of an Online Home Maintenance System	Ruaya (2023)	Web-based booking and communication features improved service reliability and reduced transaction delays [4]	Supports booking and communication features of the system
5	HandyFix: A Digital Platform for Skilled Services	Tandoc *et al.* (2023)	Rating and review systems increased trust, transparency, and service quality in skilled service platforms [5]	Reinforces trust-building features in DajawonTa
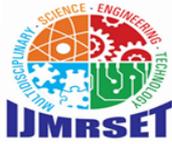
In conclusion, the reviewed literature indicates that digital and mobile-based platforms significantly improve accessibility, efficiency, and trust in skilled service delivery. Prior studies confirm that centralized service systems with booking, communication, and evaluation features effectively address the limitations of traditional service-seeking methods. **DajawonTa** builds upon these findings by providing a localized, secure, and user-friendly platform tailored to the skilled service needs of the community.

III. METHODOLOGY

Research Design
This study utilized a **developmental-descriptive research design**, integrating the practical development of an information system with a formal evaluation of its performance. The **DajawonTa platform** was developed using the **Agile Software Development Life Cycle (SDLC)**, which provided an iterative and flexible framework for system development.

The developmental phase progressed from requirements analysis and user interface design to the implementation of core system functionalities, including user registration and authentication, service listing and categorization, booking and scheduling, in-app communication, notifications, and rating and review features. These functionalities were continuously refined through sprint-based development and testing.

Following system deployment, a descriptive phase was conducted to gather empirical data on the effectiveness, usability, and overall performance of the DajawonTa platform.

Instrument
To measure the software quality of DajawonTa, this study adopted the ISO/IEC 25010 software quality framework to ensure compliance with internationally recognized standards. A **five-point** Likert scale questionnaire was administered to selected respondents to obtain quantitative feedback on key software quality characteristics, namely functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability, and portability.

Each questionnaire item was rated using a five-point scale, with responses ranging from
1 = Not Acceptable to **4 = Highly Acceptable**.

Data Collection and Participants
The study involved 32 respondents who were either users of skilled services or individuals knowledgeable about information systems and digital platforms. The respondents included IT practitioners**,** skilled service providers, and potential platform **users** from the Municipality of Cantilan.

This diverse group of participants ensured that the evaluation of DajawonTa captured both technical perspectives and actual user experiences, providing a balanced assessment of system functionality and usability.

Data Analysis
Data gathered from surveys, interviews, and system evaluations were analyzed using appropriate statistical and descriptive techniques. The following treatments were applied:
1.Weighted Mean – Computed to determine the overall evaluation scores for each software quality characteristic based on the ISO/IEC 25010 model, including functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability, and portability.
2.Scale Interpretation – Respondents' ratings were interpreted using a descriptive scale: (4.21–5.00 = Highly Acceptable, 3.41–4.20 = Acceptable, 2.61–3.40 = Moderately Acceptable, 1.81–2.60 = Less Acceptable, 1.00–1.80 = Not Acceptable).
3.Qualitative Data Analysis – Responses from interviews and open-ended survey questions were categorized and summarized to identify patterns, trends, and insights related to system usage and user satisfaction.
4.Triangulation – Data obtained from surveys, interviews, and system observations were cross-validated to ensure the reliability and consistency of the findings.

IV. RESULTS & DISCUSSION

System Overview The DajawonTa platform was developed to help clients find reliable skilled service providers and allow local workers to showcase their skills. Available as a mobile and web application, it enables users to register, browse services, book appointments, and manage payments, while administrators oversee operations. All data and transactions are securely stored, ensuring reliability and accessibility. Evaluation results showed the system performed well across ISO/IEC 25010 quality attributes, with users rating it highly for functionality, usability, reliability, and security, demonstrating that DajawonTa is an effective and dependable solution for skilled service management.

Performance Evaluation The system results from 32 respondents revealed that DajawonTa achieved an overall **Acceptable to Highly Acceptable** rating across all ISO 25010 criteria. Functionality (WM = 4.1) and usability (WM = 4.2) confirmed that users could efficiently perform tasks with minimal assistance. Reliability and security showed strong results, indicating system stability and data protection.

Table2. Performance Evaluation System Tabulation

Category No.	Category	Result	Verbal Interpretation
1	Functional Suitability	4.1	Acceptable
2	Performance Efficiency	4.3	Acceptable
3	Compatibility	4.3	Acceptable
4	Usability	4.2	Acceptable
5	Reliability	4.4	Acceptable
6	Security	4.5	Highly Acceptable
7	Maintainability	4.6	Highly Acceptable
8	Portability	4.6	Highly Acceptable
Overall Weighted Mean		4.3	Acceptable

V. CONCLUSION

The study concluded that DajawonTa effectively improved the process of connecting clients with skilled service providers by automating booking and scheduling activities, addressing limitations of manual service-seeking methods such as delays, miscommunication, and inefficiencies. The results confirmed that the platform is technically sound, user-friendly, and beneficial to its target users, demonstrating its potential as a practical digital solution for promoting local skilled services and supporting community-based economic activity.

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