



E-FIND SERVICE SYSTEM IN MISAMIS OCCIDENTAL

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ABSTRACT

This study presents the development and evaluation of the e-Find Service System, an online platform designed to streamline the search and hiring process for service providers in Misamis Occidental. In a region where accessing reliable workers quickly can be challenging, this system addresses local employment needs by providing a centralized platform that enables users to search for, compare, and hire service providers based on specific criteria. Developed using a Modified Waterfall Model, the system prioritizes functionality, reliability, usability, and adaptability. Feedback from sixty end users confirms the system's effectiveness in connecting clients with workers, benefiting both groups by facilitating local job opportunities and making the hiring process more efficient. The findings underscore the advantages of moving from traditional to digital methods for service coordination, highlighting the system's relevance in promoting accessible employment within Misamis Occidental.

Keywords: *e-Find Service System, service, workers, clients, digital labor platforms, employment accessibility*

INTRODUCTION

Work plays a fundamental role in shaping personal identity, social bonds, and community contribution, impacting overall well-being and economic stability (Blustein, 2019). However, as the global employment landscape shifts with the rise of gig work, freelance platforms, and remote jobs—trends accelerated by the COVID-19 pandemic—

workers face increasing instability in income and employment. Employers also struggle to find skilled, reliable workers, particularly on short notice, making efficient labor matching more critical than ever (Stephany et al., 2020; Gibbs et al., 2021).

In the Philippines, the pandemic underscored the viability of freelancing and online work as alternative employment options. Many have turned to digital platforms that offer flexible work arrangements, a trend encouraged by increased digital connectivity. These platforms provide a combination of flexibility and risk, offering adaptable but sometimes unstable work conditions (Soriano, 2022). For regions like Misamis Occidental, structured access to digital job platforms could significantly benefit local workers and employers by facilitating efficient labor matching and strengthening the local gig economy.

The e-Find Service System was developed to meet these needs, providing an accessible online platform that streamlines the hiring process, promotes local job opportunities, and reduces the challenges involved in finding skilled service providers. Research on digital labor platforms identifies common challenges, such as lack of formal recognition, high competition, and job instability, especially in developing regions. In response, the e-Find Service System aims to establish a dependable, user-friendly environment that secures and facilitates transactions between clients and workers, thus addressing a critical gap in Misamis Occidental's local job market (Holtz et al., 2022).

The e-Find platform also reflects findings from the literature on algorithmic management, which shows that online labor platforms, through reputation systems and behavioral nudges, can efficiently manage workforce engagement while supporting workers' adaptability to varying demands (Taylor & Francis, 2022). Further, the COVID-19 pandemic drove a global shift to remote work, with teleworking rates rising dramatically, a shift that many found challenging to balance alongside home responsibilities (Troll et al., 2021; Isometrics & Global Workplace Analytics, 2021). In this context, digital labor platforms with user-centric designs offer considerable advantages, streamlining the job-matching process and improving accessibility to local service providers (Investopedia, 2022).

For Misamis Occidental, where employment coordination remains largely manual, the e-Find Service System provides an innovative, reliable solution that aligns with research findings advocating for accessible, structured digital job platforms. By prioritizing usability, reliability, and accessibility, the e-Find Service System addresses an urgent demand for streamlined job facilitation as the local economy adapts to a digital-first employment landscape (Ramonette et al., 2022; Otto et al., 2022).

Research Questions

This study sought to determine the feasibility and effectiveness of the proposed e-Find Service System in addressing the challenges faced by workers and clients in Misamis Occidental. Specifically, it examined the acceptability of this online platform as a tool for improving the ease and efficiency of locating and hiring service providers, with a

focus on enhancing income stability for workers and reducing the time spent by clients searching for available workers.

1. How do customers find available workers?
2. What challenges do workers face when dealing with clients?
3. Can workers negotiate their compensation with clients?
4. Do workers meet their expected income?
5. What common issues do clients face in finding available workers?
6. Are there any protocols or regulations for finding workers or clients?
7. Are workers registered on any government platform for home services?
8. Do workers possess the necessary gadgets for effective service delivery?

METHODOLOGY

The study was conducted in Misamis Occidental, Philippines, targeting key user groups: administrators, workers, and clients of the e-Find Service System. A 10% sampling method was selected for each user group, resulting in five administrators, twenty-seven workers, and twenty-eight clients. This sample size was chosen to ensure that the data collected would be manageable yet representative of the overall population. A 10% sample provides a balanced approach that captures the experiences and feedback of a cross-section of users, helping to assess system functionality accurately while maintaining a feasible scope for a pilot study.

The system was evaluated according to the ISO/IEC 9126 standards, which provide a framework for assessing software quality based on key attributes, including functionality, reliability, usability, efficiency, maintainability, and portability. These criteria ensure that the e-Find Service System meets essential quality standards and addresses the needs of various user groups. The study employed a structured evaluation instrument aligned with these ISO standards to gather comprehensive feedback from users on their experience with the system.

The evaluation instrument used a 5-point Likert scale, allowing users to rate their experience in each of the ISO 9126 categories. Ratings ranged from Poor (1) to Excellent (5), with interpretations as follows:

Scale	Range	Interpretation
5	4.6-5.0	Excellent
4	3.6-4.5	Very Satisfactory
3	2.6-3.5	Satisfactory
2	1.6-2.5	Needs Improvement
1	1.0-1.5	Poor

Table 1. 5-point Likert Scale for Evaluation

The weighted means of these ratings were calculated to provide an overall assessment of system performance across different user groups.

While the evaluation demonstrated the e-Find Service System's effectiveness, several limitations could impact its broader implementation. First, the system's reliance on internet connectivity may limit accessibility, especially for users in remote or underserved areas with unstable internet access. This limitation could affect the platform's reach and effectiveness. Additionally, users' varying levels of technological literacy may influence their ability to navigate the system effectively, which could reduce user satisfaction and engagement. These issues underscore the need for future studies to explore simplified interfaces or offline functionality to accommodate different levels of digital proficiency, alongside training or support for users less familiar with digital platforms.

RESULTS

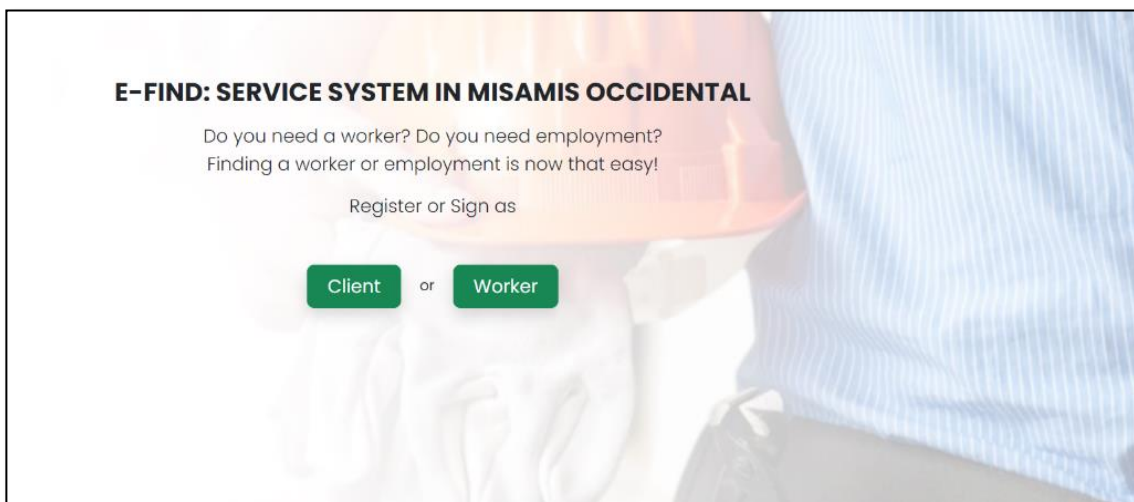


Figure 1. Main Page

Figure 1 displays the main entry point for all users, showing distinct URLs for admin, worker, and client access. This separation streamlines the system's operations by directing each user group to specific areas tailored to their interactions with the platform.

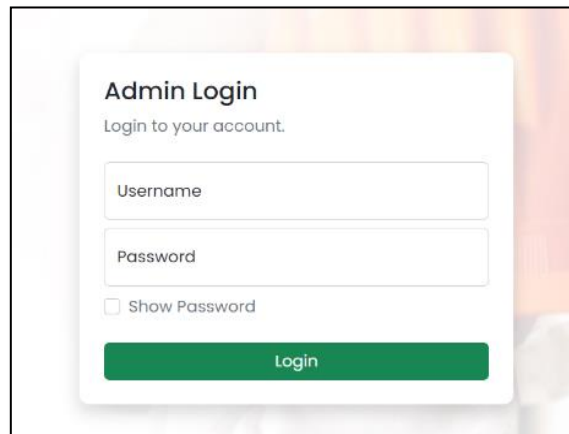


Figure 2. Admin Login

Figure 2 illustrates the Admin Login Page for the e-Find Service System, designed with secure login fields for username and password. This interface ensures that only authorized administrators can access core functionalities, with built-in error messaging to guide users in resolving access issues. After logging in, administrators are directed to a comprehensive dashboard for managing user accounts, subscriptions, system activities, and reports, supporting efficient control within the system.

Admin Evaluation	Weighted Mean	Interpretation
Functionality	5.0	Excellent
Reliability	4.8	Excellent
Usability	4.8	Excellent
Efficiency	4.5	Excellent
Maintainability	4.8	Excellent
Portability	4.8	Excellent

Table 2. Overall system evaluation of Admin

Administrators rated the system highly across all criteria, with functionality scoring a perfect 5.0 ("Excellent"), indicating that the system fully supports their needs. Other aspects such as reliability, usability, maintainability, and portability were also rated as "Excellent," confirming the system's robustness and ease of management.

Worker Evaluation	Weighted Mean	Interpretation
Functionality	4.7	Excellent
Reliability	4.5	Excellent
Usability	4.6	Excellent
Efficiency	4.5	Excellent
Maintainability	4.4	Excellent
Portability	4.6	Excellent

Table 3. Overall system evaluation of Worker

Workers provided positive feedback, rating functionality, usability, and portability as "Excellent" (weighted mean: 4.6 or above). Reliability and efficiency were rated as "Very Satisfactory" (4.5), while maintainability received a rating of "Very Satisfactory" (4.4), highlighting minor opportunities for improvement in the system's upkeep.

Client Evaluation	Weighted Mean	Interpretation
Functionality	4.5	Excellent
Reliability	4.5	Excellent
Usability	4.5	Excellent
Efficiency	4.6	Excellent
Maintainability	4.3	Very Satisfactory
Portability	4.6	Excellent

Table 4. Overall system evaluation of Client

Clients also evaluated the system favorably, with functionality, reliability, and usability consistently rated as "Excellent" (4.5), reflecting a seamless user experience. Efficiency and portability scored slightly higher, with a weighted mean of 4.6 ("Excellent"). Maintainability was rated as "Very Satisfactory" (4.3), suggesting that some users identified minor areas for improvement in system maintenance or troubleshooting.

DISCUSSION

The e-Find Service System's high ratings in functionality, usability, and efficiency align with findings from similar studies on digital labor platforms, indicating that it effectively meets user needs and provides a seamless experience. For example, platforms such as Upwork and Freelancer have demonstrated the advantages of user-friendly interfaces and efficient job-matching algorithms in connecting clients and freelance workers. These systems, like e-Find, prioritize ease of navigation and reliability, which contribute significantly to user satisfaction and engagement. Additionally, Grab and TaskRabbit, two platforms operating in service provision, have shown that user trust and repeat engagement increase when systems are dependable and accessible. e-Find distinguishes itself by adapting these successful characteristics to a local context in Misamis Occidental, providing a platform that promotes local economic inclusion while leveraging best practices in digital labor facilitation. By offering features tailored to the needs of Misamis Occidental's workforce and clients, e-Find not only competes with but potentially surpasses these global platforms in terms of relevance and accessibility for its target users.

The “Very Satisfactory” rating for maintainability, while positive, suggests room for further improvement. Practical measures to enhance maintainability could include implementing automated update mechanisms and more robust diagnostic tools. Automated updates would ensure that all users have access to the latest features and security patches without manual intervention, reducing the workload on administrators and lowering the risk of system vulnerabilities. Adding diagnostic tools that can quickly identify and alert administrators to potential issues would streamline troubleshooting processes, minimizing system downtime and enhancing overall user experience. Additionally, providing documentation and training materials for administrators could further ease the system’s maintenance, ensuring consistent performance and potentially elevating the maintainability rating to “Excellent.”

Conclusions

The study concludes that the e-Find Service System effectively addresses key challenges in locating and hiring service providers in Misamis Occidental. By offering a user-friendly, reliable, and efficient platform, the system enables clients to quickly find qualified workers while providing job opportunities that enhance income stability for workers in the region. Evaluations across functionality, usability, efficiency, maintainability, and portability were consistently rated as “Excellent” or “Very Satisfactory” by administrators, workers, and clients, underscoring the platform’s capability to meet user needs and support local economic inclusion.

Given the system’s success in Misamis Occidental, expanding e-Find to other regions could benefit a wider demographic, particularly in areas with similar employment challenges. However, scalability will require careful consideration of varying local job markets and digital access levels. Differences in digital literacy, internet connectivity, and regional job demands could influence user engagement and system performance in new locations. Addressing these factors—such as through region-specific customization, simplified user interfaces, or offline functionality—will be essential to ensuring the system’s effectiveness and adaptability across diverse areas.

Recommendations

The findings of the e-Find Service System in Misamis Occidental present valuable applications and point toward areas for further research. The system’s high ratings in usability, functionality, and reliability suggest it can significantly improve the local job-matching experience by making it easier for clients to find qualified workers and for workers to gain additional income opportunities. These results imply that the system could be expanded to other regions, potentially benefiting a wider demographic. Testing with larger, more diverse samples across different regions would provide further insight into the system’s adaptability and scalability.

Future research might also explore integrating a mobile application, which could complement the web-based system, particularly in areas with high mobile user engagement. Additionally, if there are any unexpected variations in responses, such as in

the efficiency or maintainability ratings, further studies could investigate these discrepancies. This would involve examining user feedback in detail to identify underlying factors and ensure that the system remains responsive to user needs. These steps could help enhance the system's performance and broaden its applicability, ensuring it meets the requirements of both clients and workers effectively.

Compliance with Ethical Standards

The study ensured that all participants, including administrators, clients, and workers, were fully informed of the purpose and nature of the research. Confidentiality and data privacy were maintained to protect participant information, with system data handling procedures designed to prevent unauthorized access. The researchers adhered to ethical guidelines in data collection and analysis, avoiding biases and ensuring accuracy in reporting findings. These measures underscore the commitment to ethical standards, promoting trustworthiness and integrity in both the study and the resulting system application.

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