

DIGITAL-BASED PUBLIC SERVICE TRANSFORMATION THROUGH THE SIAPKERJA APPLICATION AT THE MINISTRY OF MANPOWER OF THE REPUBLIC OF INDONESIA: A FIVE-DIMENSION SERVICE QUALITY ANALYSIS

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Abstract

The digital era has driven the Ministry of Manpower of the Republic of Indonesia to launch SIAPkerja (Employment Service Information and Application System) as an integrated employment service platform. This study evaluates the transformation of public services through SIAPkerja using the five dimensions of public service quality (tangibles, reliability, responsiveness, assurance, empathy) as an analytical framework. The method employed is qualitative descriptive, utilizing in-depth interviews, participatory observation, and documentation for data collection. The findings indicate that SIAPkerja improves the accessibility and responsiveness of employment services, although it still faces challenges such as limited digital infrastructure in remote areas. The implementation of SIAPkerja also supports good governance principles through data integration and regular monitoring by the Ministry. This study concludes that SIAPkerja has enhanced the quality of technology-based public services, though recommendations for improving human resource capacity and infrastructure remain essential.

Keywords: public service digitalization, SIAPkerja, public service quality, service quality, Ministerial Regulation No. 17 of 2024.

1. Introduction

Digital transformation has become an inevitability in the implementation of modern governance, including in the employment sector. Public demands for fast, transparent, and responsive services can no longer be met through conventional administrative approaches. As information technology evolves, governments around the world are racing to develop digital service systems that enhance bureaucratic efficiency and reinforce public accountability (Dwiyanto, 2023). In Indonesia, bureaucratic reform through public service digitalization is being strengthened through the Electronic-Based Government System (SPBE) agenda, which positions technology-based services as a key instrument in reinforcing good governance.

Within this context, the Ministry of Manpower of the Republic of Indonesia has launched SIAPkerja (Employment Service Information and Application System), a national digital ecosystem aimed at fully integrating employment services – from vocational training and job placement to social security and industrial relations. According to Ministerial Regulation No. 17 of 2024, SIAPkerja is established as the main pillar of employment public service transformation and as a strategic instrument to support the national labor data integration. However, its implementation faces significant challenges, including disparities in technology access, limited digital infrastructure in remote areas, and low levels of digital literacy among the public and implementing officials. These issues raise critical questions regarding the effectiveness and quality of SIAPkerja as the new face of employment public services.

This study focuses on evaluating how the quality of public services has significantly changed during the shift from manual to digital systems. This evaluation is especially important as SIAPkerja impacts millions of job seekers and employers in Indonesia. Without a corresponding improvement in service quality, digitalization risks becoming mere bureaucratic formalism with little public value. Therefore, an academic assessment of the service quality dimensions in SIAPkerja is essential – not only to evaluate the application’s performance but also to reflect the success of digital bureaucratic reform in the employment sector.

Previous studies on technology-based public services have mostly concentrated on technical aspects of information systems or general user satisfaction. In contrast, research on SIAPkerja’s service quality using the five SERVQUAL dimensions (tangibles, reliability, responsiveness, assurance, empathy) remains very limited. These dimensions are crucial in shaping public perception of the success of digital service reform. Additionally, existing studies tend to describe SIAPkerja narratively without applying an evaluative approach based on service quality theory or its alignment with good governance principles and relevant regulations (Ministerial Regulation No. 17 of 2024). This highlights a research gap in viewing SIAPkerja not merely as an application system, but as a strategic public service instrument with measurable quality.

The novelty of this study lies in its application of the five-dimensional SERVQUAL framework in the context of a national digital employment system, directly linked to government policy through Ministerial Regulation No. 17 of 2024. Rather than merely assessing general user satisfaction, the research offers a multidimensional analysis of SIAPkerja’s performance as a strategic public service platform, with emphasis on its role in promoting transparency, accountability, and digital bureaucratic effectiveness. Utilizing a qualitative descriptive methodology and source triangulation, the study provides a scientifically grounded mapping of SIAPkerja’s strengths and weaknesses.

Research Objectives:

1. To analyze the quality of public services in the implementation of the SIAPkerja application based on the five SERVQUAL dimensions.
2. To identify challenges in the digitalization of employment services and their impact on good governance principles.
3. To evaluate the compliance of SIAPkerja's implementation with Ministerial Regulation No. 17 of 2024.
4. To provide policy recommendations for strengthening digital-based public services in the employment sector.

Significance and Benefits of the Study:

Theoretically, this study enriches the literature on digital public services in Indonesia, particularly in the application of service quality frameworks in national application-based systems. It fills a gap in evaluative research on the SIAPkerja system, which has thus far been explored mainly descriptively. Practically, the findings may serve as a basis for the Ministry of Manpower to improve the system, design HR training programs, and formulate data-driven digital service policies. Furthermore, this research could serve as a reference for other ministries and institutions in developing quality-oriented digital public service systems that prioritize user satisfaction and equity.

2. Methodology

Research Approach and Type This study adopts a qualitative approach with a descriptive-analytical research type. A qualitative approach was selected to gain an in-depth understanding of how public service quality is implemented through the SIAPkerja application by the Ministry of Manpower of the Republic of Indonesia. Qualitative descriptive research aims to describe phenomena contextually and holistically, focusing on the meanings behind actions, processes, and interactions among the actors involved in the use and administration of digital-based services (Miles & Huberman, 2014; Moleong, 2021). In this context, SIAPkerja is not merely viewed as a technological product, but as a public service entity whose quality can be measured through user interactions, institutional structures, and labor data management policies. Hence, the qualitative approach enables the researcher to capture the complexity and dynamics of digital public services more comprehensively.

Informant Selection Technique

Informants in this study were selected using purposive sampling, a non-probabilistic technique where participants are chosen intentionally based on their relevance, competence, and direct involvement in the implementation or

usage of the SIAPkerja application. The informant criteria included:

- Officials and technical staff from the Ministry of Manpower (particularly those managing information systems and public services)
- SIAPkerja users, including job seekers, training participants, and employers who have actively used the application for at least the past three months
- Technical staff from regional manpower offices who assist the public in accessing SIAPkerja

The number of informants was determined using the saturation point principle, where data collection was halted once the information became repetitive and no longer provided significant new insights (Patton, 2015).

Informant Category	Number
Central SIAPkerja Officials/Managers	3 People
System Developers/Technical Staff	1 People
SIAPkerja Users (Job Seekers, Trainers, Employers)	3 People
Regional Labor Office Staff	4 People
Public Service/Digitalization Experts (for triangulation)	2 People

Data Collection Techniques

Three primary data collection techniques were used:

1. In-depth Interviews

Conducted semi-structurally with open-ended question guides based on the five dimensions of public service quality (Parasuraman et al., 1988): tangibles, reliability, responsiveness, assurance, and empathy. Interviews were conducted with both key informants and triangulation sources to explore their perceptions, experiences, and evaluations of SIAPkerja services. All interviews were recorded and transcribed for deeper analysis.

2. Participatory Observation

The researcher observed the use of SIAPkerja from both the user (front-end) and administrator (back-end) perspectives, including interaction documentation, staff responses, and service workflows. Observations were conducted both online (platform access) and offline (visits to the Ministry and regional labor offices).

3. Document Study

Documents analyzed included:

- a) Ministerial Regulation No. 17 of 2024
 - b) SIAPkerja user manuals
 - c) Internal evaluation reports from the Ministry of Manpower
 - d) Relevant academic articles and publications
- This technique aimed to deepen understanding of the policies, operational standards, and system frameworks of SIAPkerja.

Triangulation Techniques

To ensure data validity and reliability, the study employed data and source triangulation as outlined by Miles and Huberman (2014):

- a) **Technique Triangulation:** Comparing data obtained through interviews, observations, and documents to assess consistency and convergence of findings.
- b) **Source Triangulation:** Using diverse informant types (central government, regional offices, and users) to view the phenomenon from different perspectives.
- c) **Time Triangulation:** Observing the stability of services and application responses at different times (e.g., before and after peak working hours).

These triangulation steps ensure that data interpretation is objective, in-depth, and reflects accurate empirical realities.

Data Analysis Technique

Data were analyzed using Miles & Huberman's (2014) interactive model, consisting of three main stages:

1. **Data Reduction:** Selecting, categorizing, and simplifying data from interviews, observations, and documentation, focused on the five service quality dimensions.
2. **Data Display:** Organizing the reduced data into thematic matrices and analytical narratives to identify relationship patterns among the dimensions of SIAPkerja's service quality.
3. **Conclusion Drawing and Verification:** Conclusions were drawn based on patterns, trends, and key findings from multiple data sources, then verified iteratively to produce valid thematic syntheses.

3. Results and Discussion

Research Problem 1: How is the implementation of the SIAPkerja application in improving the quality of public employment services at the Indonesian Ministry of Manpower? The implementation of SIAPkerja by the Ministry of Manpower shows significant progress in shifting public service delivery from conventional to digital-based models. Based on in-depth interviews and observation of user interactions with the app, it was found that SIAPkerja has successfully integrated various strategic services – such as vocational training, job placement, and professional certification – into a single, unified digital ecosystem.

This implementation is marked by the presence of core features: SkillHub, SertiHub, KarirHub, and BizHub, which together represent the essential needs of the labor sector. Field data indicate that users experience greater efficiency in accessing training information and job vacancies, which previously required manual visits to employment offices.

Specifically, SIAPkerja's implementation enhances public service effectiveness through:

- **Reduced service time**, shrinking average processing times (for example, certification of training) from three days to under one day.
- **24/7 service availability**, enabling job seekers and employers to access services without being tied to office hours.
- **Standardized processes**, since the digital system minimizes subjectivity in manual service delivery.

Academically, these findings support Zeithaml et al. (2006), affirming that digitalization can increase both efficiency and users' perceived value of services, provided the system remains consistent, accessible, and includes feedback mechanisms.

Research Problem 2: What are the strengths and challenges encountered in the implementation of SIAPkerja?

Strengths (Implementation Advantages)

Evaluated using the five dimensions of service quality (Parasuraman et al., 1988), SIAPkerja performs well:

1. Tangible:

The user-friendly SIAPkerja interface simplifies access, understanding, and navigation. Interactive guides, a chatbot, and clear data visualizations enhance system usability. Role-based dashboards (for users, trainers, government staff) further strengthen clarity in information delivery.

2. **Reliability:**

The system consistently delivers accurate job postings, training schedules, and certification processing. Interview feedback highlights rare data entry errors and timely system notifications.

3. **Responsiveness:**

Fast support via Helpdesk and AI-powered FAQs provide effective assistance. Technical complaints are typically resolved within 2–6 hours—faster than traditional manual systems.

4. **Assurance:**

Verified logins using national ID (NIK) and active email ensure user authentication and data security. A user privacy agreement before usage also reinforces safety and public trust.

5. **Empathy:**

Personalized features—such as training history, competency-based job recommendations, and an event calendar—show that SIAPkerja considers user experience, not just administrative needs.

Challenges (Implementation Barriers)

Notwithstanding its success, several challenges emerged:

- **Infrastructure and network issues:** Internet disruptions and server overloads remain common complaints, especially outside Java.
- **Digital literacy gap:** Some users, particularly aged 45 and older, struggle to navigate SIAPkerja.
- **Internal HR training:** Regional office staff often lack technical skills to resolve application issues, leading to slow escalation to central support.
- **Account duplication and NIK synchronization:** Migrating users sometimes experience duplicate accounts, indicating weak interoperability across agencies.

These findings suggest SIAPkerja is in a digitally enabled governance transition phase, requiring technical policy support, public education, and enhanced digital infrastructure.

Research Problem 3: How does SIAPkerja contribute to the principles of good governance in public service?

SIAPkerja inherently embodies core values of good governance: transparency, accountability, efficiency, and public participation.

- **Transparency:**

The system openly displays all employment-related data—training programs, job openings, registration statuses—fulfilling information

openness as mandated by Law No. 14 of 2008.

- **Accountability:** Reporting tools, activity logs, and post-service feedback mechanisms provide a digital audit trail for the Ministry. Biannual evaluations by the technical unit enforce structural accountability (as required by Ministerial Regulation 17 of 2024, Article 15).
- **Efficiency and Effectiveness:** Digital services reduce administrative burdens and service time, eliminating the need for physical office visits.
- **Participation:** The public is encouraged to register for training, upload portfolios, and provide feedback—strengthening active involvement in national workforce development.

Theoretically, SIAPkerja reflects a new “collaborative e-governance” paradigm (Janssen & Estevez, 2013), where citizens are not just passive users but partners in shaping public policy and service evaluation.

Research Problem 4: How suitable is the implementation of SIAPkerja in relation to Ministerial Regulation No. 17 of

2024? An analysis of Regulation No. 17/2024 shows that SIAPkerja is a strategic instrument for delivering on its mandates. Articles 1 and 2 define SIAPkerja as a “digital ecosystem integrating all national employment services.”

Field findings confirm SIAPkerja’s alignment with regulatory mandates:

- **Service integration:** All employment domains (training, placement, oversight, industrial relations) are accessible via SIAPkerja—meeting Article 4 requirements.
- **Single employment data:** The app collects and displays interoperable data, in line with the One Data Indonesia principles (Article 3).
- **System interoperability:** SIAPkerja connects with Dukcapil, BPJS Ketenagakerjaan, and partner training platforms via APIs.
- **Monitoring and evaluation:** The Ministry conducts regular system assessments per Article 15’s requirements.

Thus, SIAPkerja not only aligns with national policy frameworks but also serves as a practical example of digital public service reform embedded in formal law.

Further Discussion: Theoretical and Conceptual Analysis

To fully assess SIAPkerja’s role in modern public employment service, we examine key

themes:

1. **Service Quality via SERVQUAL**

Based on Parasuraman, Zeithaml, and Berry's five dimensions (1988), SIAPkerja performs strongly across most indicators. Notable gaps include accessibility for people with disabilities and local language support. To strengthen, it is suggested to adopt universal design principles and offer multi-language options.

2. **e-Government: Technocratic vs. Participatory Approaches**

Under Layne & Lee's (2001) four-stage model of e-Government maturity (catalogue → transaction → vertical integration → horizontal integration), SIAPkerja qualifies as "horizontal integration" – bridging multiple service domains and agencies (e.g. Dukcapil, BPJS, BNSP). Its public engagement features reflect a shift from closed bureaucracy to collaborative governance (Janssen & Estevez, 2013). Nonetheless, Indonesia still faces challenges with bureaucratic resistance, digital inequity among regions, and limited regional budgets.

3. **Good Governance Contributions**

- a) **Transparency:** Open visibility into training, job postings, and certification.
- b) **Accountability:** Feedback channels and periodic reviews.
- c) **Efficiency:** Reduced administrative overhead and time.
- d) **Public Participation:** Active user involvement and input.

These aspects support Osborne & Gaebler's (1992) view that modern bureaucracy should be citizen- and results-driven rather than rule- and center-focused.

4. **Policy Synergy & Single Data Initiative**

SIAPkerja underpins national digital policy frameworks, especially Ministerial Regulation No. 17/2024 and Presidential Regulation No. 132/2022 on Digital Government (SPBE), which mandate system integration, data interoperability, and cross-sector efficiency. As such, SIAPkerja could serve as a model for integrated digital services in vocational education, MSMEs, or social security. Achieving this, however, requires sustained inter-sectoral cooperation and funding.

5. **Academic & Practical Implications**

Academically, the research confirms the continuing relevance of SERVQUAL for evaluating digital public services in Indonesia, expanding its validity beyond private sectors. Practically, the findings provide strategic recommendations for the Ministry – improving system design,

enhancing digital literacy among local operators, and extending public campaigns to foster inclusive, efficient, citizen-centric digital services. Other regions and ministries may use this as a reference when developing their own digital service systems.

Summary Table: Service Quality Evaluation (SERVQUAL)

Dimension	Key Indicators	SIAPkerja Achievement	Challenges	Recommendations
Tangible	Interface, dashboard	User-friendly UI, interactive visuals	Disability access, local language	Universal design, multi-language support
Reliability	Data, notifications	Accurate data, real-time updates	NIK data synchronization	API auditing and optimization
Responsiveness	Helpdesk, FAQ	Responsive AI helpdesk during office hours	Slow response outside hours	Hybrid live agent 24/7, regional staff training
Dimension	Key Indicators	SIAPkerja Achievement	Challenges	Recommendations
Assurance	Login, privacy	NIK verification, privacy terms	Low user awareness	Digital literacy and security training
Empathy	Personalization, reminders	Tailored recommendations, notifications	Limited empathy in edge-cases	AI-empathy chatbot, local call-center integration

Critical Weakness Analysis

- **Responsiveness** remains critical: for issues reported outside business hours, response is slow; chatbots handle only standard FAQs, limiting support for complex needs— especially for vulnerable groups in 3T areas (underprivileged, frontier, and outer regions). A 24/7 hybrid support system (AI + human agents) is recommended.
- **Empathy** also needs strengthening: suggested improvements include integrating empathetic AI chatbots, local call-centers, and more personalized services for the elderly and people with disabilities.

In essence, digitalization doesn't diminish the importance of empathy or assurance—it expands them into data protection and personalized service. This study underlines that e-Government success depends not just on technological sophistication but also on organizational readiness and user capacity. Practically, the research offers strategic input for the Ministry of Manpower to improve SIAPkerja's design, enhance regional operator training, and implement broad digital literacy initiatives. It also serves as a reference model for other ministries and regions aiming to build digital public services that are efficient, inclusive, and aligned with good governance principles.

4. Conclusion

The transformation of public services in the employment sector through the SIAPkerja application has shown significant progress in terms of digital bureaucracy effectiveness and the improvement of public service quality. Based on the analysis of the five service quality dimensions (SERVQUAL), SIAPkerja has proven capable of delivering a tangible, user-friendly system, maintaining reliability in presenting consistent data, being responsive to user needs, offering assurance through data security guarantees, and demonstrating empathy through personalized service features.

From a good governance perspective, SIAPkerja has addressed the needs for transparency, efficiency, and public participation. The system not only fulfills technocratic requirements but also enhances the state's legitimacy in delivering accountable and inclusive public services. This study specifically affirms that SIAPkerja complies with the mandates of Ministerial Regulation No. 17 of 2024, in terms of service integration, data interoperability, and public service performance evaluation systems.

Nevertheless, several challenges still need to be addressed, such as limited digital infrastructure in certain regions, low digital literacy among users, and the suboptimal readiness of technical human resources in regional offices. These challenges highlight that the success of digital transformation relies not only on system design but also on institutional preparedness and the digital culture of society.

Strategic Recommendations

Based on the findings and discussion, this study proposes the following strategies:

1. Strengthening Digital Infrastructure

The central government, in coordination with local governments, must accelerate the equitable distribution of internet network infrastructure and access to supporting hardware, particularly in underdeveloped,

frontier, and outermost (3T) regions.

2. Improving Public Digital Literacy

The Ministry of Manpower should develop SIAPkerja usage training modules based on community outreach or integrate them into vocational training programs, to improve public skills in utilizing the application effectively.

3. Training and Certification for Local Technical Personnel

Regional government staff need to be regularly trained in the technical operations of SIAPkerja, including troubleshooting, data validation, and digital service delivery.

4. Service Feature Enhancement

Further development of AI-based chatbot services, live chat features, and integration of notification systems via WhatsApp or SMS Gateway is necessary to strengthen the **empathy** and **responsiveness** dimensions of the platform.

5. Cross-Policy and System Integration

SIAPkerja should be strategically expanded beyond being a platform for employment services into a **collaborative hub** connected to sectors such as education, industrial training, and social protection systems – aligning with the vision of **government-as-a- platform**.

6. Sustainable Evaluation and System Auditing

The government needs to develop a **real-time, data-based public service performance dashboard** – an interactive visualization system that continuously presents up-to-date, live data on public service performance. This system should assist the government, service managers, and the public in continuously and adaptively monitoring the quality and effectiveness of SIAPkerja services in response to user dynamics.

5. Closing

By implementing the above strategies, SIAPkerja will not only function as an employment service application but also evolve into a platform for institutional transformation and digital-based public service performance in Indonesia. This study is expected to contribute meaningfully to the

development of national digital policy and serve as both a scientific and practical reference in realizing high-quality, inclusive, and sustainable public services.

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