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The Role of Information Technology In Public SafetyDevelopment Strategy For The Activity Service Information System (SIAP) Application In Agribusiness Services

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Abstract

The utilization of information technology is a key factor in improving the efficiency and transparency of services in the agribusiness sector. This study aims to formulate a development strategy for the Service Activity Information System (SIAP) application to optimize service quality for stakeholders. The research method used is qualitative descriptive with the SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis instrument. The results indicate that the SIAP application is positioned in Quadrant I (Progressive Strategy) on the SWOT matrix, suggesting that the organization possesses significant internal strengths and substantial external opportunities for expansion. Based on this positioning, the study recommends two primary strategies first Intensive Digitalization-Based Service Expansion which focuses on developing more diverse and user-friendly service features to reach a broader user base, Second Strengthening Legitimacy through the Integration of the One Data Policy, to ensure information synchronization and data validity across all levels of agribusiness administration.

Key words: Development Strategy, SWOT, Agribusiness Services

INTRODUCTION

The agribusiness sector is currently facing massive pressure for digital transformation to enhance the efficiency and transparency of services for stakeholders. Digitalization is not merely the adoption of technology but a crucial strategy to mitigate logistical and informational barriers that have long hindered the competitiveness of the agricultural sector in the global market (Harahap et al., 2024) . In the context of public

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services in the agricultural sector, the integration of information technology tools is vital for accelerating the dissemination of agricultural standards to farmers and business operators. The optimization of digital-based services is expected to create an agribusiness ecosystem that is more responsive and accountable to the needs of the field sector (Srikandi, 2025)

In response to these challenges, digital transformation in the agricultural sector is no longer merely an innovation but a strategic necessity. Digital innovation enables data-driven services, process automation, and information transparency (Nurhidayanti, 2025) . A concrete example is the development of the Service Activity Information System (SIAP) by the Gorontalo Agricultural Modernization Assembly Center (BRMP) in Gorontalo, designed as a digital platform to support agribusiness services more efficiently and transparently.

Although the SIAP application holds significant potential, its success heavily depends on the organization's ability to identify the dynamics of both internal and external environments. Field observations reveal a gap between the features provided and user expectations and satisfaction. Without a comprehensive mapping of strengths and weaknesses, application development tends to be piecemeal and unsustainable. This underscores the urgency of conducting an in-depth study on the application's strategic positioning in addressing market opportunities and threats from competition as well as ever-changing regulations.

METHODOLOGY

The research was conducted in Gorontalo Province, with the Gorontalo Agricultural Modernization Assembly Center (BRMP) serving as the agency developing this application. The study period was from January to March 2026. The respondents were all active users, totaling 112 individuals after data collection. The analysis utilized the SWOT method, a tool for formulating corporate strategic factors. According to Santiani et al. (2025), SWOT is a strategic analysis tool that combines internal factors (strengths and weaknesses) and external factors (opportunities and threats). To address the challenges faced, problem identification can be conducted using SWOT analysis. Thus, influencing factors can be analyzed so that appropriate strategies can be formulated. In this study, several types of analysis were employed, including:

1. Input Stage

In conducting SWOT analysis, a model comprising the Internal Factor Analysis Summary (IFAS) Matrix and the External Factor Analysis Summary (EFAS) Matrix is used. This model is employed to evaluate the internal and external factors influencing the company's performance. Consequently, an appropriate strategy can be formulated based on the evaluation of these factors.

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2. Matching Stage

The matching process consists of several stages. The first stage involves identifying the company's strengths and weaknesses. The second stage involves identifying opportunities and threats originating from outside the company. Then, the third stage involves pairing these four factors in pairs. These factor pairs will yield S-O, W-O, S-T, or W-T strategies that align with the company's conditions. Santiani (2025) notes that by pairing the values of the two factors in the SWOT matrix, an organization can generate the most suitable strategy to implement moving forward to achieve effective, efficient, and sustainable performance in line with current conditions. This aims to optimize efforts in achieving those objectives.

Next, at this stage, analysis and decision-making are conducted using the SWOT matrix approach. In this approach, each relationship is provided with an appropriate strategic solution. 66 With this matrix, the company can clearly see how to adapt to the external opportunities and threats it faces using its strengths and weaknesses (Rangkuti, 2013). There are four strategic alternatives in this matrix, namely:

a. The SO strategy is formulated in line with the company's core vision, where all potential is maximized to seize and optimize existing opportunities.
b. The ST strategy is a tactic that focuses on leveraging the company's internal strengths to address any emerging challenges
c. The WO strategy is implemented by maximizing potential opportunities and reducing vulnerabilities within the company.
d. The WT strategy involves defensive actions to minimize vulnerabilities and avoid risks from existing threats

RESEARCH AND RESULTS

In an effort to optimize the role of the Service Activity Information System (SIAP) as a pillar of agribusiness service digitization in Gorontalo, a comprehensive evaluation is needed to map the application's current strategic position. Through a SWOT analysis approach, the system's effectiveness can be assessed not only in terms of technological functionality but also from managerial and user adaptation perspectives in the field. An in-depth identification of internal factors including the system's strengths and weaknesses which are then compared with external factors such as market opportunities and threats, serves as the primary foundation for formulating a precise development strategy. Below is a detailed breakdown of the strategic SWOT ( ) factors influencing the sustainability and future development of the SIAP application

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A. Identification of Strengths, Weaknesses, Opportunities, and Threats

a. Strengths

Strengths are defined as the internal resources, capabilities, or competitive advantages possessed by SIAP in agribusiness services that provide added value

1. SIAP Facilitates Access to Agribusiness Information

The SIAP application serves as a digital bridge that mitigates information asymmetry barriers in the agribusiness sector of the Gorontalo region. Within the framework of information systems theory, ease of access is a key determinant in technology adoption by users. By integrating various standardized agricultural data into a single platform, SIAP transforms information dissemination from a conventional, sporadic model into a structured and centralized digital model.

2. SIAP Assists in Agribusiness Decision-Making

SIAP functions as a Decision Support System (DSS) that provides an accurate database to support strategic decision-making. In agribusiness management, which is fraught with uncertainty, the availability of relevant and up-to-date data is essential to minimize operational risks. This system processes raw data into information that is useful for managers in determining service policies and for farmers in planning their farming activities.

3. SIAP Accelerates Service Processes

Accelerating services through digitalization is a manifestation of operational efficiency, which is a primary requirement in modern public administration. The SIAP application automates workflows that were previously manual and bureaucratic, making them more streamlined and responsive. The reduction of redundant procedures through this digital system significantly cuts waiting times at every stage of agribusiness services provided by BRMP Gorontalo.

4. SIAP Supports Service Transparency

Transparency is a key pillar of good governance that is systematically integrated into the SIAP application. By providing a digital audit trail for every service transaction, this system creates a control mechanism that is open to all parties. Transparency of information regarding procedures, requirements, and costs minimizes the opportunity for misconduct and ensures that every user receives equal treatment.

b. Weaknesses

Within the SWOT analysis framework, Weaknesses are defined as limitations, shortcomings, or deficits in internal resources that hinder SIAP from achieving its objectives optimally.

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1. **SIAP Features Are Still Limited**

The maturity of an information system is largely determined by the comprehensiveness of its features in accommodating user needs. In the early development phase, limitations in the operational features of the SIAP application can hinder the achievement of holistic service integration. The gap between user expectations regarding digital agribusiness services and the actual functionality available within the system may reduce the relative utility of the application in the eyes of stakeholders.

2. **SIAP Awareness Remains Low**

The success of information technology implementation depends not only on the quality of technical infrastructure but also on the level of user literacy and awareness. Inadequate outreach creates an information gap regarding the existence and tangible benefits of the SIAP application. Without a structured dissemination strategy, a digital innovation is likely to stagnate due to low penetration rates among the target audience—in this case, agribusiness actors and internal agency staff.

3. **SIAP Technical Support Remains Limited**

Technical support is a pillar ensuring the operational sustainability of an information system. The availability of competent human resources in IT management and robust hardware infrastructure is an absolute requirement for the stability of digital services. Limitations in this area often make the system vulnerable to technical disruptions that can reduce the reliability of the service in the eyes of users.

4. **Utilization of SIAP Is Not Yet Optimal**

Suboptimal system utilization reflects a situation where the functional capabilities of the application are not fully utilized by all organizational elements or external users. This is often the cumulative result of limited features, a lack of awareness, and technical barriers. Ineffective system utilization prevents the expected efficiency gains from the digitalization process from being optimally achieved in line with the initial development objectives.

c. Threats

Threat Factors are defined as external conditions or trends beyond the organization's control, yet have the potential to hinder goal achievement, reduce performance, or even threaten the sustainability of a system.

1. **More Competitive Similar Applications**

In the digital economy ecosystem, the threat of substitution is a variable that can diminish the relevance of an information system. The emergence of other agribusiness digital platforms, whether developed by the private sector or global research institutions, creates a competitive environment in the provision of data and services. If competitor platforms are

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able to offer higher added value, a more intuitive interface, or more comprehensive features, then the SIAP application risks losing its potential user base.

2. User Digital Literacy Remains Low

The effectiveness of a technological innovation heavily depends on the readiness of human resources to operate it, a concept known as e-readiness. Low digital literacy among agribusiness stakeholders poses a structural barrier that hinders the transfer of benefits from the SIAP application to end-users. The gap in ability to access, understand, and process digital information means that the advanced features of the system cannot be fully utilized by the majority of target users.

3. Resistance to Technology Adoption

Resistance to change is a psychosocial phenomenon in which individuals or groups tend to cling to conventional work patterns and feel threatened by the presence of new systems. In change management, reluctance to shift from offline to online methods often stems from comfort with old procedures or fear of losing personal control. This resistance poses a serious threat to the sustainability of SIAP as it can trigger passive or active rejection of the system's use.

4. Dependence on IT Infrastructure

The operational sustainability of digital information systems is highly dependent on the stability of external supporting infrastructure, such as telecommunications networks and the electricity supply. This dependency creates systemic vulnerabilities, where the performance of the SIAP application is not entirely under the control of BRMP Gorontalo. Disruptions at internet service providers (ISPs) or instability in regional infrastructure will directly result in service outages.

d. Opportunities

Opportunities are factors beyond the control of BRMP Gorontalo that, if leveraged appropriately, can accelerate the success of the SIAP application in serving the agribusiness sector.

1. Technological Developments Supporting SIAP

The acceleration of innovation in the field of information and communication technology (ICT) provides a strong technical foundation for the evolution of public service information systems. Technological advancements such as cloud computing, big data analytics, and microservices-based software architecture enable the SIAP application to be developed into a more scalable and robust platform. This technological transformation is not merely a change in tools but the provision of new capabilities to process and disseminate standardized agricultural instrument data with greater precision.

2. Growing Demand for Digital Agribusiness Services

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Shifts in market behavior and rising stakeholder expectations for fast, transparent, and accessible services from anywhere are creating significant demand for digital agribusiness platforms. This dynamic is driven by the need for technical standard certainty within the agricultural supply chain to meet global market qualifications. Growing awareness of the importance of data in agricultural economic activities positions information systems like SIAP as a primary necessity for modern agribusiness operators.

3. Government Policy Support for Digitalization

Government regulatory support and strategic policies serve as enabling factors that provide a legal framework and direction for the development of information systems within public institutions. National policies such as "One Data Indonesia" and the "Making Indonesia 4.0" roadmap in the agricultural sector provide a strong impetus for local government units to undertake digital transformation. This policy framework creates momentum for system developers to align local innovations with more accountable national public service standards.

4. ICT Infrastructure Continues to Expand

The provision of more equitable and high-quality telecommunications infrastructure is an absolute prerequisite for the operational success of web- or mobile-based information systems. The expansion of broadband networks, increased 4G/5G signal coverage, and programs to provide internet access in remote areas offer broader distribution channels for digital service . Maturing ICT infrastructure minimizes technical access barriers, which have long been the primary obstacle to technology adoption in the agricultural sector.

B. Analysis of Internal and External Strategic Factors

After conducting an in-depth identification of the organization's internal and external conditions, the next step in this study is to perform weighting and ranking using the IFAS (Internal Factor Analysis Strategy) matrix. This stage aims to measure the extent to which the strengths of the SIAP application can be optimized, while also evaluating the significance of weaknesses that remain operational barriers.

Table 1. Results of the Internal Factor Analysis Strategy (IFAS)

Internal Factors	Weight	Rank	Score
Strengths			
SIAP facilitates access to agribusiness information	0.25	3.98	1.00
SIAP helps with agribusiness decision-making	0.25	3.82	0.95
SIAP speeds up service processes	0.25	3.86	0.95

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SIAP supports service transparency	0.25	3.98	1.01
Total Strength			**3.91**
Weakness			
SIAP features are still limited	0.18	3.43	0.84
Public awareness of SIAP is still lacking	0.15	3.48	0.87
Technical support for SIAP remains limited	0.14	3.34	0.84
Utilization of SIAP is not yet optimal	0.18	3.36	0.85
Total Weaknesses			**3.40**
Total IFAS		**0.51**	

Source: Processed Primary Data, 2026

Based on the table, it can be seen that the total strength in internal factors is weighted at 3.91 and the total weakness at 3.40. These values indicate that in its efforts to implement the strategy, agribusiness services through the SIAP application are above average in terms of overall internal strength.

In addition to reviewing internal aspects, the formulation of the SIAP development strategy also requires an evaluation of variables beyond the organization's control using the EFAS (External Factor Analysis Strategy) matrix.

Table 2. Results of the External Factor Analysis Strategy (EFAS)

External Factors	Weight	Rank	Score
Opportunity			
Technological developments support SIAP	0.25	3.98	0.99
Demand for digital agribusiness services is increasing	0.25	3.98	0.99
Government policy support for digitalization	0.25	4.02	1.02
ICT infrastructure is growing	0.25	3.96	0.98
Total Opportunities			**3.99**
Threats			
Similar apps are more competitive	0.26	3.52	0.92
Users' digital literacy is still low	0.24	3.46	0.85
Resistance to using technology	0.25	3.46	0.85
Dependence on IT infrastructure	0.25	3.52	0.88
Total Threat			**3.40**
Total EFAS		**0.50**	

Source: Processed Primary Data, 2026

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Based on the table, it can be seen that the total opportunities in external factors are weighted at 3.99 and the total threats are weighted at 3.40. These values indicate that, in its efforts to implement the strategy, the application of SIAP in providing agribusiness services is above average in terms of overall external strengths.

Next, calculations were performed beyond the table above to determine the most appropriate strategy for the development of SIAP in agribusiness services. Based on this difference, the coordinate points were determined as shown in the following figure

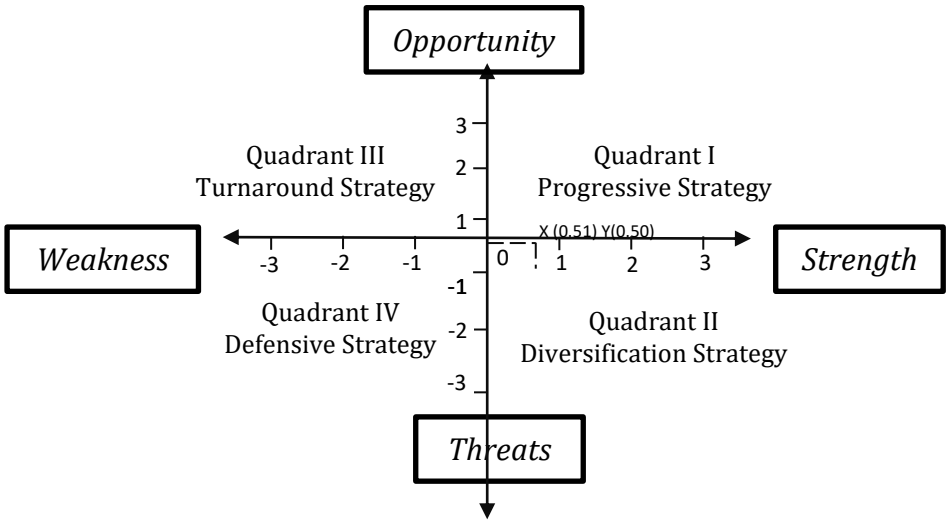


Figure 1. SWOT Diagram

Source: Primary Data, Processed, 2026

Figure 1 above shows that the score for the strengths factor is 3.91 and for the weaknesses factor is 3.40, so the difference between these values is 0.51; meanwhile, the score for the opportunities factor is 3.99 and for the threats factor is 3.40, so the difference between these values is 0.50. These difference values can form a coordinate point, namely (0.51 : 0.50). Thus, the coordinate position of the SIAP application lies in Quadrant I, which is theoretically known as the Progressive position.

C. SWOT Matrix

The SWOT matrix is a tool used to organize strategic factors. This matrix can clearly illustrate how external opportunities and threats can be aligned with existing strengths and weaknesses.

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Table 3. SWOT Matrix

External Factors / Internal Factors	Opportunities	Threats
Strengths	**SO Strategy**: 1. Expansion of Services Based on Intensive Digitalization 2. Strengthening Legitimacy through One Data Policy Integration	**ST Strategy**: 1. Education Based on Added Value and Data Credibility 2. Strengthening System Reliability and Rapid Response
Weakness	**WO Strategy:** 1. Modernization and Expansion of Features Based on Technological Trends 2. Optimizing Outreach Through Government Policy Support	**WT Strategy:** 1. Feature Restructuring and Adaptive Guidance. 2. Strengthening Self-Sustaining Infrastructure and Mitigating Competition.

Source: Processed Primary Data, 2026

The SWOT matrix in the table above yields four alternative strategies that can inform decisions regarding the procurement of sustainable goods and services in response to real-world conditions

a) Strength-Opportunities Strategy

The primary focus is to utilize all internal Strengths to maximize external Opportunities.

1. Massive Digitalization-Based Service Expansion

The strategy of massive digitalization-based service expansion essentially aims to eliminate geographical barriers in the dissemination of agricultural tools, particularly by transforming conventional models into a digital ecosystem that reaches remote areas. The implementation of this strategy requires integration between scalable application functionality and adequate ICT infrastructure to ensure sustainable access for users in remote areas. This aligns with the argument by Ridwan et al. (2025) regarding the efficiency of information distribution in public sector through structured technology penetration, as well as Muamar (2025) emphasis that software innovation must be accompanied by infrastructure readiness

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to mitigate the digital divide. By optimizing bandwidth-efficient features, the SIAP application can maintain operational stability in areas with limited connectivity.

From a managerial perspective, digital acceleration via the SIAP platform serves as a tool to enhance organizational productivity and bureaucratic efficiency without a proportional increase in human resources. This automation enables administrative processes to run faster and more accurately, which, according to Abidin et al. (2026), is a key prerequisite for Agribusiness 4.0 transformation and improved public satisfaction. However, the success of this expansion heavily depends on the sustainability of adaptive and user-centric innovations. As emphasized by Widjaja and Samuel (2025), this strategy must be supported by real-time data updates to ensure the information generated remains relevant to decision-makers, thereby creating tangible economic impacts for the broader agribusiness community.

2. Strengthening Legitimacy through the Integration of the One Data Policy

The strategy to strengthen legitimacy through the integration of the One Data Indonesia (SDI) policy aims to align data standards in the SIAP application with the national regulatory framework, to create accountable and credible data governance. By adopting SDI principles, the SIAP application gains a strong legal foundation as a reference platform for standard agricultural instruments, which directly enhances stakeholders' confidence in the validity of the information. This aligns with the argument by Yuliana and Anita (2026) that inter-agency data integration is an absolute prerequisite for building digital legitimacy. Furthermore, the existence of standardized and interconnected data serves as a pillar supporting decision-making that minimizes data duplication and enhances the accuracy of policy analysis. As stated by Saepudin et al. (2025), the implementation of this policy provides an opportunity for local institutions to strengthen their position as authorities for high-quality and accountable data in the agribusiness sector.

From a sociopolitical perspective, the legitimacy gained through the One Data ecosystem helps institutions mitigate resistance to technology and policy changes, as users feel safer conducting transactions on(2025) a system with legal certainty. Emphasizes that public trust in government information systems heavily depends on the integration of these systems with higher regulatory standards to ensure procedural certainty. Therefore, the sustainability of this integration requires continuous technical and managerial synchronization to ensure that innovations in the SIAP application remain relevant and stay within the applicable legal framework. This harmonization, according to Lukman and Fiulaizi (2026), not only improves internal efficiency but also strengthens the organization's position as an institution that is adaptive to modern evidence-based governance standards, while simultaneously facilitating cross-sectoral coordination in regional agricultural development.

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b) Strength-Threats Strategy

The Diversification Strategy aims to utilize all the organization's internal strengths to counter, mitigate, or minimize the impact of emerging external threats.

1. Value-Added and Data Credibility-Based Education

The value-added education strategy for the SIAP application focuses on communicating tangible benefits (perceived usefulness) to reduce user resistance by translating technical features into practical economic value for the agribusiness community. In this context, the success of technology implementation is heavily determined by the institution's ability to emphasize that operational efficiency and farm profitability are highly dependent on data accuracy, as highlighted by Kurniawati and Utami (2025). Beyond added value, data credibility serves as a cornerstone in building user loyalty, where the provision of valid and certified agricultural tools offers security assurances to agribusiness stakeholders in making strategic decisions. According to Maulan and Fitriani (2025), data integrity and accountability are the primary determinants of digital trust, distinguishing official government platforms from commercial platforms whose validity has not yet been tested.

The integration of structured education and data credibility serves as a tool to gradually improve the public's digital literacy, thereby empowering users to navigate bureaucratic transformation. Sajiah and Theuayo (2026) emphasize that evidence based education can accelerate farmers' learning curves and transform negative perceptions of digitalization into a more adaptive attitude. By focusing on substantive aspects, this strategy ensures that the SIAP application is not merely used as an administrative formality but as a catalyst for the development of a smarter agribusiness sector. This synergy between system quality and information quality, as explained by Arjang et al. (2025), will ultimately create a long-term impact on strengthening regional competitiveness in the era of national information openness.

2. Strengthening System Reliability and Rapid Response

The strategy for strengthening system reliability focuses on providing digital infrastructure with high availability to ensure the continuity of public services in the agribusiness sector. The reliability of this architecture is a key determinant in maintaining user retention, especially when the system faces high fluctuations in access load (Kusuma & Zahra, 2025). Beyond technical aspects, system responsiveness is a critical variable in streamlining bureaucratic processes, as the system's speed in responding to user inputs in real-time can reduce negative perceptions regarding technological complexity. As noted by Depriyani (2025), the response speed of digital services has a positive correlation with public satisfaction, as time efficiency is the primary motivation for the public to fully transition from conventional administrative processes to more dynamic digital platforms.

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The integration of reliability and rapid response also serves as a mitigation strategy against the limitations of telecommunications infrastructure in regions with uneven connectivity. Through code optimization and data compression, the system is expected to remain resilient and capable of adapting to external disruptions, ensuring service quality does not degrade significantly (Salam dkk., 2024). From a managerial perspective, strengthening this aspect requires clear standard operating procedures regarding routine maintenance and incident handling to reinforce the institution's professional image. Synergy between stable technology and responsive technical support, according to Suvianti et al. (2025), is the key to ensuring that digital transformation in the agribusiness sector delivers sustainable functional impacts on agricultural productivity across the board.

c) Weakness-Opportunity Strategy

The combination of Weaknesses and Opportunities is referred to as the Turn-around Strategy. This strategy focuses on efforts to minimize internal weaknesses to capture existing external opportunities.

1. Modernization and Expansion of Features Based on Technology Trends

The feature modernization strategy aims to align the information system architecture with the latest technological advancements to enhance the flexibility and scalability of services within the SIAP application. Through a modular and adaptive design approach, feature limitations can be addressed by adopting the microservices concept, which allows for partial updates without disrupting the overall system stability, ensuring services remain relevant to the dynamic needs of society (Kamal, 2025). This feature expansion also includes the integration of Artificial Intelligence (AI) and Data Analytics, which enables the transformation of raw data into strategic insights for agribusiness stakeholders. According to Khuluq and Sriyono (2025), integrating smart technologies into the agricultural sector's public service platform can significantly enhance the application's utility, as the system can provide precise recommendations tailored to real-world conditions in the field.

Leveraging the mobile-first technology trend is a crucial pillar for reaching highly mobile users, given that the majority of agribusiness stakeholders currently interact via mobile devices. Modernizing interfaces focused on mobile user experience is an absolute prerequisite for improving service accessibility and inclusivity, particularly in regions with limited access to desktop devices (Anwar & Verawati, 2025). Strategically, investing in regular feature updates is a sustained effort to maintain an organization's digital sustainability amid the tide of national ICT disruption. As emphasized by Srikandi (2025), modernizing features based on current trends is not merely an effort to keep up with the times, but a strategic necessity

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to ensure bureaucratic efficiency, service transparency, and to minimize the risk of system obsolescence that could hinder the competitiveness of the regional agribusiness sector.

2. Optimizing Outreach Through Government Policy Support

A socialization optimization strategy integrated with government policy aims to transform digitalization initiatives from merely voluntary choices into formally recognized standard operating procedures. By leveraging legal frameworks such as the Electronic-Based Government System (SPBE) regulations, agencies can reinforce the urgency of using the SIAP application through the creation of a mandatory environment. This aligns with Rani's (2024) argument that the effectiveness of public innovation dissemination heavily depends on policy interventions capable of addressing structural dissemination barriers through clear managerial directives. Furthermore, this policy support provides a formal channel for continuous training programs through synergy with routine regional outreach agendas. According to Widyawana et al. (2025), cross-sectoral collaboration driven by central government policies can significantly expand the reach of digital education by leveraging existing bureaucratic infrastructure, thereby making the communication of technology's benefits to target groups more efficient.

From a managerial perspective, linking app usage to performance indicators or public service fulfillment requirements serves as a mitigation against budget and personnel constraints in the large-scale rollout of the system. This strategy represents a form of strategic efficiency, where the government's legitimacy acts as a catalyst accelerating the technology adoption curve through strong compliance effects without requiring high commercial marketing costs (Adriana dkk., 2022). The successful synchronization between the socialization strategy and this policy framework ensures that the use of the SIAP application becomes an integral part of local government services, thereby minimizing the risk of system neglect due to information gaps through continuous monitoring. As explained by Lako et al. (2015), this harmonization not only increases user participation but also strengthens the organization's position as an accountable institution in consistently carrying out the mandate of national digital transformation in the agribusiness sector.

d) Weakness-Threats Strategy

The combination of Weaknesses and Threats is technically referred to as a Defensive Strategy. This strategy is designed to minimize internal weaknesses while avoiding or mitigating the impact of external threats to prevent system failure.

1. Feature Restructuring and Adaptive Guidance

The feature restructuring strategy for the SIAP application focuses on simplifying the information architecture through a user-centered design approach to address functional

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limitations and reduce navigation complexity for users with limited technical skills. This is crucial for creating a lighter and more intuitive system, in line with the findings of Setiawan (2026) , who emphasize that prioritizing usability in government agencies is highly effective in reducing resistance from user groups who are not yet digitally independent. To complement these system updates, an adaptive support model is needed to bridge the gap between system capabilities and operational understanding in the field. Through a human-centered and flexible approach to user demographics, this strategy minimizes barriers to technological transition. As emphasized by Hombore (2025), the success of digital transformation, particularly in the rural e-government sector , heavily depends on the role of change agents who consistently provide ongoing technical guidance.

From a change management perspective, the integration of feature simplification and responsive technical support aims to build confidence and create a digital comfort zone for stakeholders. Huda (2025) notes that system simplification, coupled with persuasive education, has proven effective in increasing user retention on public service platforms that were previously considered complex. This strategy not only ensures the system's sustainability amid competition from similar applications but also ensures that future feature development remains grounded in real-world feedback and challenges. According to Susuenohaji et al. (2025), the synergy between periodic feature evaluations and intensive mentoring is the key to mitigating information system failures while ensuring that technology investments deliver significant functional impacts on improving agribusiness service quality.

2. Strengthening Self-Reliant Infrastructure and Competitive Mitigation

The strategy for strengthening self-reliant infrastructure aims to reduce the information system's reliance on third parties to ensure consistent service availability for agribusiness users within the BPSIP Gorontalo environment. By maintaining full internal control over servers and security protocols, the organization can achieve higher operational resilience in mitigating technical failure risks beyond managerial control. This aligns with the argument by Juniansyah et al. (2026), who state that ICT infrastructure self-reliance is an absolute prerequisite for government agencies to maintain service continuity. Operationally, this step requires allocating resources to routine maintenance and strengthening cybersecurity to protect sensitive agribusiness data assets. According to Widodo & Astuti (2024), gradually strengthening local infrastructure capacity provides dual protection: ensuring service continuity against external network disruptions while reinforcing the organization's position as a professional and secure public service provider.

This infrastructure independence serves as the primary foundation in a competitive mitigation strategy, particularly to highlight SIAP's credibility as a platform with legal

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legitimacy amidst the proliferation of private agritech applications. In a competitive digital ecosystem, user retention heavily depends on perceptions of system reliability; repeated infrastructure failures can trigger user migration to competitor platforms that are perceived as more technically robust (Putri dkk., 2025). Therefore, successfully mitigating competition through a robust system enables organizations not merely to react to market threats but to lead digital service standards in their region through tangible performance evidence. As explained by Febriyansyah et al. (2026), investment in self-reliant infrastructure and measurable mitigation strategies is key for public institutions to maintain their relevance, ensuring that the digital transformation undertaken can provide stable functional benefits for the entire agribusiness ecosystem.

CONCLUSION

Based on the discussion, it can be concluded that the SWOT analysis results have coordinates x (0.51) and y (0.50), placing them in Quadrant I, which represents a progressive strategy. Therefore, two strategies can be employed by leveraging the strengths of the SIAP application and existing opportunities: the expansion of services through intensive digitalization and the strengthening of legitimacy via the integration of a single-data policy.

Digital service expansion is carried out on a massive scale by integrating scalable application functionalities and robust ICT infrastructure. This aims to ensure sustainable access for users, including communities in remote areas. Through the SIAP platform, digital acceleration serves as a strategic instrument to boost organizational productivity and create bureaucratic efficiency, ensuring that performance improvements remain optimal without relying on a proportional increase in human resources.

The strengthening of the SIAP application's position is achieved through integration with the One Data Indonesia (SDI) policy. By adopting this principle, the platform has a solid legal foundation as a standard reference for agricultural instruments, which automatically enhances stakeholders' confidence in the validity of the information presented. To ensure this innovation remains relevant and compliant with legal frameworks, continuous technical and managerial synchronization is required to maintain the sustainability of this integration.

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