

Developing Sapawarga As Value Orchestration Platform Using Service Science Perspective (Case Study Of West Java Provincial Government)

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ABSTRACT

SAPAWARGA, part of the *Jabar Super Apps* initiative, aims to enhance public service access in West Java by integrating various government services into a single platform. Despite its potential, *SAPAWARGA* faces challenges such as low user acquisition, with only 2.82 million registered users in 2024, far below its target market of 4 million. This research aims to identify issues related to user acquisition and engagement on *SAPAWARGA* and to develop strategies to align the platform with user expectations. The study also aims to provide actionable recommendations to enhance *SAPAWARGA*'s effectiveness and engagement. A *Service Science* approach was adopted, applying frameworks such as *Value Co-Creation* and *Value Orchestration Platform (VOP)* to explore alignment strategies. The *Customer Empathy Map* was used to understand user perspectives more deeply. Qualitative methods, including interviews with users and service providers, were used to gather insights and provide actionable recommendations for improving the platform. The research identified that *SAPAWARGA*'s design, low stakeholder collaboration, and suboptimal resource integration contributed to low user engagement. Users expressed a desire for a more user-friendly and relevant platform. *SAPAWARGA* has significant potential but needs improvements in service design, stakeholder collaboration, and resource integration. These changes will help increase user engagement and enhance its impact. The study provides recommendations for improving *SAPAWARGA*'s service design, fostering collaboration, and optimizing resource integration to create a more engaging and effective digital public service platform.

Keywords: service science, value co-creation, value orchestration platform

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INTRODUCTION

Digital transformation has become one of the government's main focuses in improving the quality of public services (Abdussamad et al., 2024). People's expectations for quicker, easier, and more effective services are growing along with the number of people using mobile devices and the internet. According to *Datareportal Reports* (2024), more than 66.5% of Indonesia's population are active internet users. The data also highlights that 99.3% of internet users aged 16 to 64 own a smartphone, reflecting the critical role of mobile technology in daily activities. Meanwhile, the number of mobile device connections reaches 126.8% of the total population.

Among Indonesia's largest population regions, West Java faces difficulties in providing equal and efficient public services. West Java has an important opportunity for the adoption of digital services because 70.58% of its 50,025,605 population are between the ages of 15 and 64 (BPS, 2023). In addition, 70.37% of West Java residents primarily use mobile devices to access digital services, and 71.12% of them have internet connection (BPS, 2022). These statistics demonstrate the critical role that technology-based solutions play in providing public services that are more responsive to the needs of the community (Becker & Jaakkola, 2020).

The West Java Provincial Government developed *SAPAWARGA* as part of the larger *Jabar Super Apps* program to help address these problems (Hollebeek et al., 2019). The app

is meant to be a single place where people can access a range of public services, share their thoughts or concerns, and stay up to date on important news. In addition to making it easier for the public to access services, *SAPAWARGA* also aims to make the government more efficient by streamlining administrative tasks and making it easier for people to see how their feedback and complaints are handled.

However, internal data as of September 4, 2024, shows that user acquisition reached only 2,820,038 users, which is below its *Serviceable Obtainable Market (SOM)* of 4 million users. Also, only 288,445 users are weekly active users, representing just 10.23% of the total registered users. This gap indicates that, although the initial adoption rate is quite high, the number of users who utilize the service consistently is still far from the actual market potential. In comparison, *SAPAWARGA* has a potential *Total Addressable Market (TAM)* of 35 million users, representing the province's productive population aged 15-64 years, which reflects a huge opportunity to increase active user engagement.

In addition, usage data shows a concerning trend: the majority of user activity is concentrated on one feature-service, namely motor vehicle tax payment (*SAMBARA*), as the page with the highest number of visitors at 21 million visits, while in second place is the news page (*Jabar Hari Ini*), which is only accessed by 1.5 million visits. This gap indicates a misalignment between the platform's offerings and users' expectations, weakening its role as a comprehensive public service center.

This also raises questions about whether the platform fulfills its purpose as a super app—a platform designed to integrate various government services into a single application (Osterwalder et al., 2015; Pigneur et al., 2014). According to Lusch & Nambisan (2015), a successful digital platform must enable value co-creation between service providers and users by leveraging a diverse and interconnected service ecosystem. If users only focus on one service, the ecosystem's full value potential cannot be realized. There is a mismatch between the government's objectives in designing this platform and the real needs of the community as users. These challenges point to the need for a data-driven approach to understand users' needs and ensure that the services provided match their expectations. Maglio et al. (2008) state that *Service Science* gives us an opportunity to look at how public service providers and users collaborate to create shared value from multiple perspectives. The idea of value co-creation is at its foundation (Kijima & Arai, 2016; Novani, 2016). This means that value comes from both parties collaborating and interacting with each other on a daily basis. This method helps *SAPAWARGA* transform into a *Value Orchestration Platform*. This kind of platform brings together important groups like government agencies, the public, and technology partners to create a service ecosystem that is adaptive and sustainable Lusch & Nambisan (2015). The idea not only provides digital public services, but also encourages innovation by enabling people to share resources and work together to make improvements.

By applying this theory, this study aims to identify factors that lead to low levels of user engagement, evaluate the gap between government expectations and community needs, and propose a more effective development model (Osterwalder et al., 2015). Through this approach, *SAPAWARGA* can be maximized to meet the needs of an increasingly digital-savvy West Java community.

METHOD

The research focused on the strategies utilized to accomplish the objectives. The research methods ensured that the information collected and analyzed provided a systematic and organized answer to the research questions. The following Research Design diagram provides an overall picture of the steps taken in this research.

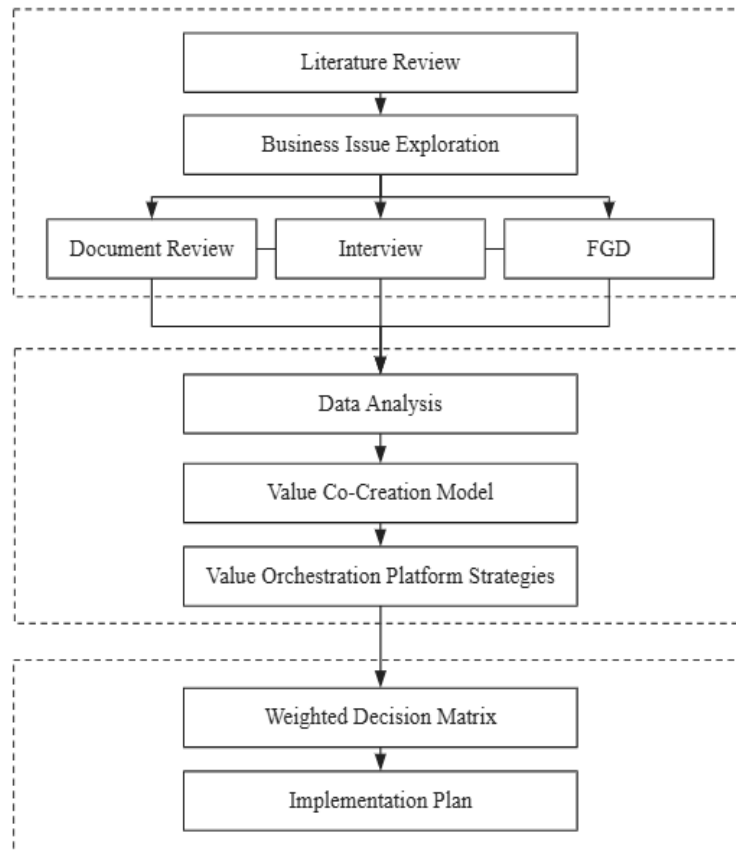


Figure 1. Research Design

The first stage focused on understanding business problems through literature reviews, business problem exploration, document reviews, interviews, and focus group discussions (FGD). The second stage involved data analysis to develop a *Value Co-Creation Model* and *Value Orchestration Platform Strategy*. The third phase applied a *Weighted Decision Matrix* to prioritize proposed strategies, resulting in a well-defined *Implementation Plan*. This final step provided actionable recommendations based on a structured decision-making approach.

The data collection method relied on primary and secondary data through a mixed-methods approach, utilizing in-depth interviews and observations to explore interactions between users, providers, and platform developers.

Table 1. Interviewee List

| No | Initial Name | Position | Reason to be interview |
|----|--------------|--|--|
| 1 | PY | Provider - Pt. Head of Organizational Bureau of West Java Provincial | Play a role in formulating general policies and coordinating administrations related to public services in West Java Province. |

| No | Initial Name | Position | Reason to be interview |
|----|--------------|--|--|
| 2 | AGGP | Provider - Secretary of Communication and Informatics Agency of West Java Provincial | Role in accelerating digital transformation through the development of an integrated governance and public service ecosystem in West Java Province. |
| 3 | RH | Provider - Head of Service Management of Geospatial Data and Information Unit (known as Jabar Digital Service) | Unit under Diskominfo that is responsible for developing digital products in West Java Provincial Government |
| 4 | RH | User - Private Company Staff | Provides a user perspective with high digital literacy and experience in using public service platforms, valuable for evaluating usability and feature relevance |
| 5 | AM | User - Civil Servant | Represents internal government users who are both service consumers and part of the public administration ecosystem, offering dual insight into needs and usability |
| 6 | LIP | User - Housewife, Job Seeker | Represents everyday citizen users with general digital skills and multiple daily service needs, useful for identifying accessibility and utility gaps in the platform. |

The data analysis method in this research used a mixed-methods approach. Data obtained from interviews were analyzed to identify key themes, relationship patterns, and perspectives relevant to user needs, platform effectiveness, and *SAPAWARGA*'s value orchestration strategy.

Customer Empathy Maps were created based on data collected through interviews. Each map captured users' behaviors, emotions, and expectations by categorizing findings into four quadrants: what users say and do, think and feel, hear, and see (Sinansari et al., 2023).

The research integrated the *Value Co-Creation Process* to analyze how users, government agencies, and service providers collaboratively created value on *SAPAWARGA* as the orchestration platform. The analysis focused on four key phases: *Co-Experience*, *Co-Definition*, *Co-Elevation*, and *Co-Development*.

Additionally, the study applied *Value Orchestration Platform Strategies* to explore how *SAPAWARGA* managed interactions between stakeholders, including provincial and local governments. The strategies centered on three key areas: *Involvement*, *Curation*, and *Empowerment*.

RESULTS AND DISCUSSION

Customer Empathy Mapping

This research also maps the providers experience to align and co-create value. The effectiveness of a service depends not only on capturing the needs and problems of its users, but also on understanding the challenges and motivations of those who develop, design, and implement the services used by users.

In the case of *SAPAWARGA*, the empathy mapping of providers and users helps ensure that the platform is user-centered while considering the operational reality and challenges of the service delivery process. By mapping user and provider perspectives, this research will identify areas for co-creation, innovation, and improvement, ensuring that the *SAPAWARGA*

platform becomes an adaptive and sustainable value orchestration platform that benefits all stakeholders involved.

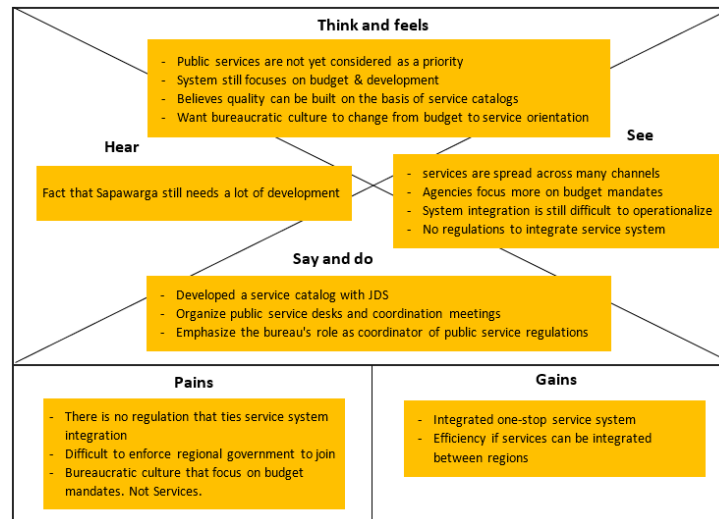


Figure 2. Empathy Maps of PY

Based of the figure above, PY as the Head of Organizational Bureau see that public services currently are not a top priority in the government bureaucracy. The existing system is still more focused on budget and development, while service quality is expected by him to be built through an organized service catalogue. He wants a change in bureaucratic culture, where service orientation becomes more important than budget mandates.

PY has taken several actions, such as developing a service catalogue and encouraging coordination between relevant agencies to build a more integrated system. But he faces challenges related to regulations that not yet bound all agencies to join an integrated public service system. He also faced cultural barriers and regional autonomy that made service integration more difficult.

However, PY sees great potential in realizing a one-stop public service system that can improve service efficiency and quality. He believes that with inter-regional service integration, the quality of public services can be significantly improved, providing direct benefits to more people.

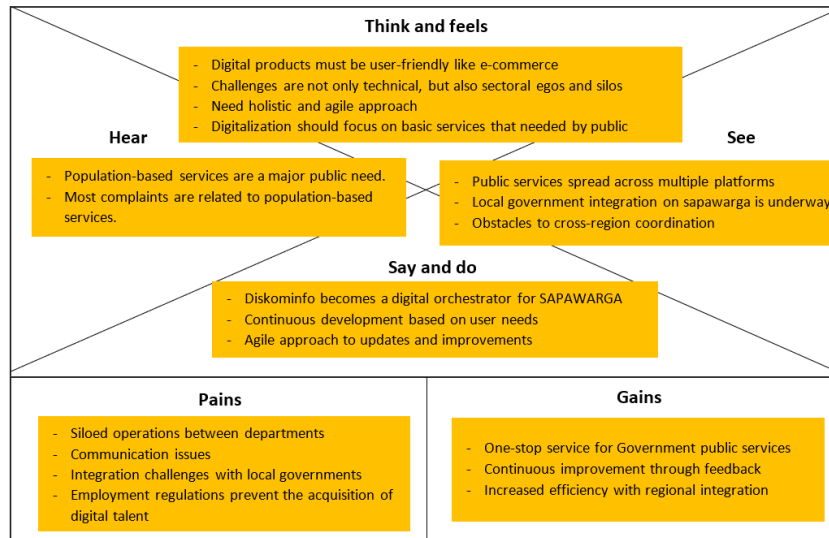


Figure 3. Empathy Maps of AGGP

Based of the figure above, AGGP as Secretary of Communication and Informatic Agency sees SAPAWARGA as an easy-to-use digital platform, but faces significant challenges due to sectoral egos, silos, and coordination issues between agencies. He also emphasizes the need for continuous development based on user needs and an agile approach to updates. Agi focused on improving the quality of services, although communication issues and fragmented operations between departments were still a major problem. Once these challenges are addressed, he believes SAPAWARGA will significantly improve efficiency and integration, making government services more accessible to the public.

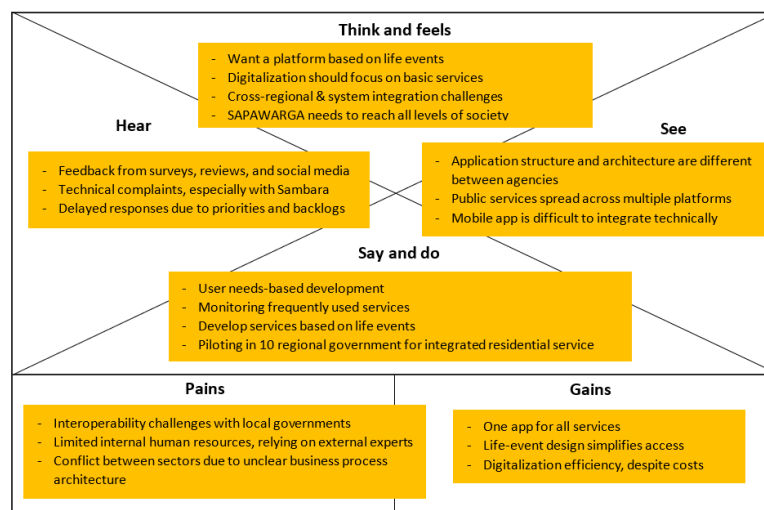


Figure 4. Empathy Maps of RH

Based on the figure above, RH as the Head of UPTD Digital Service Center, Data, and Geospatial Information (known as Jabar Digital Service), state that the main challenge of implementing SAPAWARGA is the difficulty of coordinating between regional government, this happens because of the regional autonomy owned by local governments in West Java. As RH explained, “Even when we implemented complaints, the challenge was much harder than

Jakarta. Jakarta is an administrative city, it just needs to be ordered, instructed by the province, it will be done. It's different with us. We have the autonomy of the city district.”

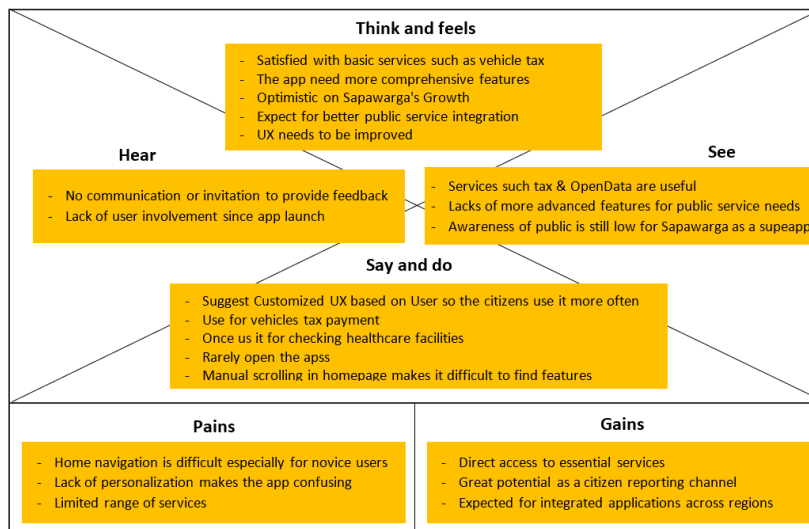


Figure 5. Empathy Maps of RHR

Mr. RHR, a 31-year-old married man working in Business Development at a logistics startup in Bandung, with expertise in Data-Driven Analytics, is one of Sapawarga's users. Based on the figure above, he appreciates the availability of basic features such as vehicle tax checking and payment and access to information on health facilities and emergency numbers but he also considers that the public services available on Sapawarga are still limited, especially for other more complex needs such as access to services at the city and district level. He also expressed hope that public services from various sectors can be more integrated to this platform.

RHR also revealed that since the beginning of the application, he was never involved in the development or evaluation process. He stated, “This is the first time (Author's interview) I've had the space to provide feedback and input for this Sapawarga application,” which shows the lack of communication between users and providers, giving the perception that citizen participation in improving the application is still very limited.

In his review of the available features, RHR assessed that the basic services were working well enough, but the application's appearance still did not make it easy for users to find services. He highlighted that unstructured navigation makes it difficult for ordinary users, and the lack of personalization makes the appearance of the application feel less user-friendly. He also made recommendations for UX development based on user roles so that the application becomes more contextual, for example for students, workers, or the elderly each has a different interface both from the arrangement of service displays or for certain features.

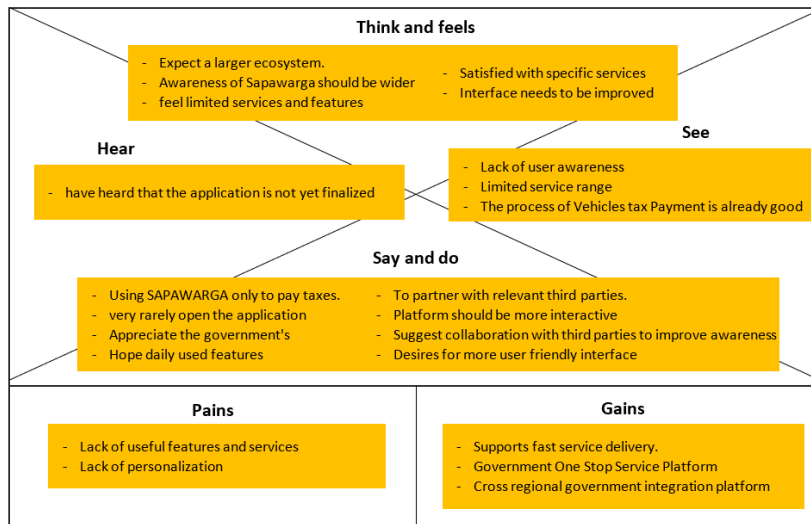


Figure 6. Empathy Maps of AM

Based on the figure above, it can be concluded that Mr. AM, a 40 year old single professional, has been working as Civil Servant in West Java for over 4 years, as user of Sapawarga has a critical view of the SAPAWARGA application. He feels that this application helps in fulfilling basic needs such as tax payments, but he emphasizes that the features currently available are still limited and not yet covering wider needs that can be used in daily life. He appreciates the government's initiative in providing this platform, but he also provides some suggestions and feedback for the app's development. One of his expectations is that this app should have a larger ecosystem, by partnering with third parties to provide more services that are relevant to the public. He also emphasized that the app should have new features that can be used more frequently, such as weather information and emergency access, which can be useful for everyday people so that the marketing and recognition level of the app in the public can be wider.

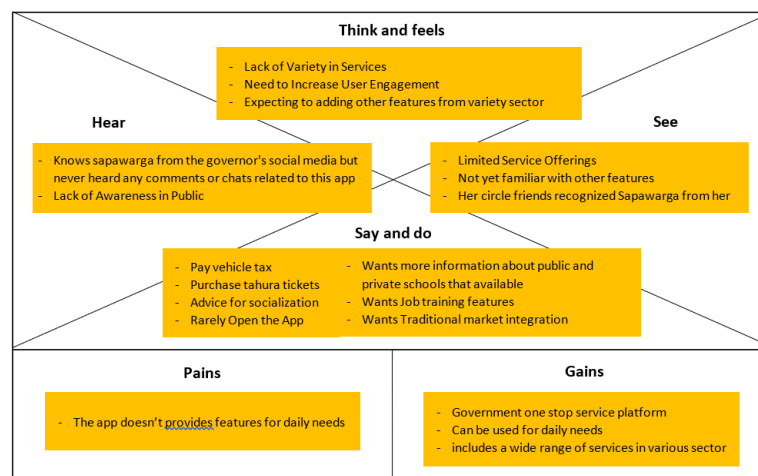


Figure 7. Empathy Maps of LIP

Based on the figure above, LIP, a 31-year-old housewife, appreciated the app's functionality for basic services such as vehicle tax payment, but she expressed her expectation that the platform could provide a wider range of features. In specific, LIP hopes for services

that fulfill the needs of housewives and job seekers. She visualizes features related to job opportunities, education, and daily services that can meet her needs. For example, in terms of traditional markets, LIP would like features that provide real-time information about local markets, such as product prices, opening hours, or the ability to check the availability of certain items. She also wishes for a more comprehensive system that supports job seekers, including job vacancies, training opportunities, and career guidance, which would be very useful. LIP also emphasized the need for a better platform to submit complaints, as she feels this aspect is not present yet in Sapawarga.

She said, “I wish there were more features that can be used on a daily basis,” highlighting the importance of integrating daily needs into the app. In addition, LIP noted that although he had heard about Sapawarga through the governor's social media, public awareness was still low, and he suggested increasing user engagement.

After conducting an analysis using Customer Empathy Maps from both the provider and customer side, researchers were able to explore more comprehensive information related to Sapawarga (Vargo & Lusch, 2014). Six respondents revealed consistent and relevant themes across the interviews. These themes represent the value gap that exists between user expectations and the limitations of service providers in managing and delivering solutions. Several key gaps were identified and these gaps reflect the different expectations, perceptions and challenges faced by both parties, which will form the basis for developing strategies at the next stage of value creation. The following are the gaps were identified:

1. **Service range and scope:** Although the providers recognize Sapawarga's potential to transform public services, they note that the platform is still in its early stages, with a limited scope of services. They are focusing on integrating the service with local governments and improving the technical infrastructure, but there is no clear timeline for expanding the scope of services offered. On the other hand, users expressed their dissatisfaction with the limited-service offerings. They hope Sapawarga can provide a wider range of services, including employment opportunities, public health services, and emergency support, and others that are important to their daily lives. The gap between the service provider development focus and users' expectations for more varied and accessible services is a lack of alignment.
2. **Usability:** Although technical development is key to long term success, the provider has not given enough attention for a more intuitive and user-friendly interface, which would increase user engagement. Users have voiced their concerns about the difficulty of navigating in some features other than motor vehicle tax payment and tourist ticket purchase. They have reported that the categorization of the app's services is confusing and the navigation on the homepage as a whole is not user-friendly, causing some confusion. Users expect the app to be simple, intuitive and easy to navigate, which Sapawarga currently does not fully accommodate.
3. **Public Awareness:** While provider recognize the importance of increasing public engagement, few actions have been taken to promote Sapawarga outside of the vehicle tax payment service. providers recognize that the app's coverage is still limited and many users are unfamiliar with the app's full potential, but they have not implemented enough awareness strategies. Users, in turn, feel that communication regarding the application's features is inadequate, and many are unaware of the services available beyond vehicle tax

services. Users expressed a desire for better awareness efforts, including partnerships with third parties and a better understanding of the platforms' full potential.

4. **Service Integration:** Providers face a significant barrier in integrating local government and internal provincial government services. Lack of alignment and cooperation between different agencies delayed platform development and service integration. On the other hand, users are frustrated by the lack of seamless integration across services, especially for critical services that require coordination between local governments.
5. **Feedback Mechanism:** The provider recognizes the importance of feedback but does not currently implement a proper method to gather input from users. They have not implemented an effective way for users to communicate their needs or provide suggestions for improvement. Users feel they have limited opportunities to influence the development of the platform. They want a simple way to submit feedback and see concrete responses to their issues. This gap indicates the need for a robust feedback loop that allows users to be directly involved in the development process, ensuring that Sapawarga meets their needs more effectively.

Value Co-creation Process

In this section, author explore the value creation process with a focus on how multiple stakeholders, including users and providers, collaborate to develop a more effective and user-centric platform. The previous Customer Empathy Map already provided valuable insights into the expectations, key points, and desires of users and providers. To ensure that SAPAWARGA can meet these needs, it is important to check how users and providers together improve the features and services on the platform. By understanding the interaction between user expectations and current platform offerings, we can identify opportunities to optimize the service delivery process, ensuring alignment between platform features and evolving user demands.

The co-creation process is divided into four phases: Co-experience, Co-defining, Co-improvement, and Co-development (Durugbo & Pawar, 2014; Ind & Coates, 2013). Each phase plays an important role in refining the platform and ensuring that it evolves according to the needs and expectations of users and providers.

The first phase of the co-creation process is Co-experience and Co-definition. This phase highlights the importance of shared experiences between users and providers. Both parties need to synchronize their understanding of the potential and limitations of the platform, to ensure that the platform is able to meet the various needs of users. Due to the complexity of public services and the variety of user needs, there is a high potential for misunderstandings between what users expect and what providers can offer. This phase focuses on developing collaboration, ensuring that users and providers clearly determine the scope of the platform and identify areas for improvement.

For Sapawarga, this process of shared experience can be facilitated through direct engagement, where users can voice their experiences, share feedback, and highlight issues they face. Likewise, providers can learn from these insights to improve their understanding of user needs. This co-definition process involves not only identifying the features that users want, but also understanding overall user expectations.

Table 2. Co-experience and Co-definition Activities

| Co-Experience and Co-Definition Activities | Detail Program | |
|---|---|---|
| | Goal | Initiative |
| Socialization of Sapawarga services through public events | Increase public awareness of Sapawarga features other than payment of vehicles taxes. | - Collaboration with local influencers in their respective regions - Webinars with themes targeting specific segments (Ex: Webinar Sapawarga for Job Seekers) |
| Online User Feedback Session | Collect direct user feedback to identify pain and gains points | -Monthly feedback sessions for apps that appear on the app homepage -Rewards for active users who provide feedback |
| Stakeholder workshops | Align development priorities among provincial agencies and local governments with the expectations of users | -Public Hearing, A dedicated session for users to express complaints and expectations. -workshops attended by provincial and local governments, and users to align public expectations and government capabilities |
| User community forum | Build a collaboration space to share knowledge and experience between users. | Launch thematic forums for the community to talk about, create monthly voting to determine forum topics, and involve users in developing community guidelines. |

The second phase is Co-Elevation and Co-Development. these processes focus on collaboration between users and service providers to improve service quality. This phase builds on the results of the previous phases, where user needs and expectations have been mapped. Co-Elevation occurs when users' demands for better quality drive service providers to innovate, creating a cycle of continuous improvement. If the service does not meet expectations, users will be disappointed and may switch to alternatives. To avoid this, Co-Development utilizes direct user feedback to improve the service, so that both parties user and provider get the benefits.

Table 3. Co-Development and Co-elevation Activities

| Co-Development and Co-Elevation | Goal | Initiative |
|--------------------------------------|---|--|
| UX Improvement Based on User Segment | Simplify app navigation to make it more intuitive for everyone | -Personalize the homepage for specific segments, for example, housewives, display priority features such as “Today's Food Prices”, “School & Scholarship Information”, “Public Transportation Routes”, “Family Articles”. Or display promos or events that housewives are interested in. |
| Improve Feedback Mechanism | Increase user engagement and platform improvement by providing opportunities for user feedback. | -provides a feedback feature to the user processed at the end of each service session. In this case, it can be integrated with the organizational bureau's customer satisfaction survey system that has been applied. |
| Redesign the Homepage interface | Optimized the homepage display structure to reduce user confusion | Implementation of GRID menu interface which is more familiar to users because it is commonly used on other well-known platforms (e-commerce, online transportation). |
| Service Categorization Improvement | Simplify the categorization of services for better user navigation | Reorganized service categories in main menu. For example: Report and Emergencies, Residency, Education, Career and Business, Recreation, Taxes, Health, etc. |

| | | |
|---|--|---|
| Adding Services that related to daily needs | Expand services to meet more user needs and engagement. | <ul style="list-style-type: none"> - Transportation - Regional tourism destination and local food information - Local tax authority such as Land and Building Tax (PBB), Restaurant Tax, - Utilities Payment - Other Public Information such as weather updates, public event in each region, etc. |
| Improve features on existing services | Enhance user engagement and improve the accessibility of existing services by increasing coverage and simplifying usage. | <ul style="list-style-type: none"> - Job Vacancies: Simplify the job vacancy feature process by eliminating multiple logins and socialize the feature more broadly to increase user awareness to make more job seekers and businesses take advantage - Ticketing: Expand the services of tourist destinations outside Bandung, including partnerships with non-provincial museums such as the Museum of Geology. - Expand the scope of tax services besides motor vehicle tax by including local government taxes such as Land and Building Tax (PBB), restaurant tax, parking tax, etc. |

In the Co-Elevation and Co-Development processes, the focus is on improving existing services and expanding their scope to meet user needs. These processes are very important as they combine user feedback into service improvement.

These activities will help the platform evolve into a more user-centric service provider. By collaborating with various stakeholders, including users and local governments, Sapawarga can drive continuous innovation that will ensure that the platform remains relevant to the needs of its users.

Value Orchestration Strategy Matrix

After value co-creation, the next step is designing an orchestration strategy to ensure effective collaboration between users, government, and strategic stakeholders. In Sapawarga, this strategy is designed to improve social interaction (co-experience), involve users in defining needs (co-definition), and improve the technical quality and scalability of the platform (co-elevation and co-development). There are three main strategies including involvement, curation, and empowerment.

Table 4. Orchestration Strategy Matrix

| Value Orchestration Strategies | Co-experience | Co-definition | Co-elevation | Co-development |
|---------------------------------------|--|----------------------|---|-----------------------|
| Involvement | <ul style="list-style-type: none"> - Socialization of Sapawarga services through public events or online platforms - Online User Feedback Session - Stakeholder workshops - User community forum | | | |
| Curation | | | <ul style="list-style-type: none"> - Improve Feedback Mechanism - Redesign the Homepage interface - Service Categorization Improvement | |
| Empowerment | <ul style="list-style-type: none"> - Collaboration in Beta app Development and Service Trial. | | <ul style="list-style-type: none"> - UX Based on User Segment - Adding Services that related to daily needs | |

- Improve features on existing services

The Orchestration Strategy Matrix that was created for Sapawarga outlines how value creation is orchestrated by combining three key strategies: Engagement, Curation, and Empowerment. Each strategy is associated with phases according to the value creation process (Co-experience, Co-definition, Co-elevation, and Co-development) to ensure alignment with user expectations and platform offerings.

In the Involvement, providers should actively engage users and providers by creating events and feedback sessions, where both parties can interact and share insights. The co-experience and co-definition phases are supported by activities such as public events, user feedback sessions, and stakeholder workshops, where the platform listens to the needs of users and aligns its offerings with their needs.

Curation is focused on making current services better and getting more people to utilize them by using feedback systems and better organizing services. Here, things like redesigning homepages, making the user experience (UX) better, and modifying platform features to the demands of different user groups will be on the list of priorities. This is to make services better, more in line with what users need, and to improve the overall experience for users.

Proposed Solution

This section is the results of detail analysis of the empathy mapping and the co-creation process that was delivered earlier. By addressing the factors that influence low user experience through a collaborative approach, this solution framework aims to directly address the real issues faced by users and providers. These solutions are also meant to solve the problems that users and providers have found to ensure SAPAWARGA meets the demands of the people in West Java. By putting these ideas together, SAPAWARGA may improve how it offers and make its platform more user-friendly and in line with the needs of its many users.

Table 5. Proposed Solution based on Co-creation

| No | Factor | Description |
|----|-------------------------|--|
| 1 | Service range and scope | <p>Expanding the range of services to cover essential public and government services, focusing on everyday needs such as education, health, local administrative services, transportation, utility services, and employment opportunities. By include features directly related to daily life, SAPAWARGA delivers high value and ensures higher engagement and increased dependency on the platform.</p> <p>The following are recommended services and features to consider:</p> <ul style="list-style-type: none"> • Transportation: West Java Public Transport route, schedule, price, and other information. • Residency: Residence card, Birth and Death Certificate, Marriage Certificate, etc. • Utilities Payment: Electricity, PDAM, Internet services. • Education: Scholarship, School Information (include private schools), Internship for student, College registration. • Career: Job vacancies, Job Training, Internship for Fresh Graduates • Recreation: Tourism destination, Local food, Souvenir, and event information in every cities • Taxes: Provide tax payments that managed by local government such as land and building tax, restaurant tax |

| | | |
|---|---------------------|--|
| | | <ul style="list-style-type: none"> • Health: Ambulance, BOR information • Immigration: Passport submission system |
| 2 | Usability | <p>Improve the usability of SAPAWARGA by enhancing its interface design and interactions to make it more intuitive and accessible to users with various backgrounds. This includes optimizing application navigation, simplifying the layout, and ensuring a smoother user experience.</p> <ul style="list-style-type: none"> • Personalization: Provide personalized suggestions, ensuring users have quick access to the services they use more often • Service Categorization: Simplify service categories to ensure better navigation. The current categories are unclear to users, leading to confusion. The following is current categories: <ul style="list-style-type: none"> ○ Layanan Publik ○ Layanan Pendidikan ○ Informasi dan Data Jabar ○ Layanan Hotline Jabar <p>And the following is a recommendation for better categorization:</p> <ul style="list-style-type: none"> ○ Report and Emergencies (Pengaduan) ○ Residency (Kependudukan) ○ Education (Pendidikan) ○ Career and Business (Pekerjaan) ○ Recreation (Wisata) ○ Taxes (Pajak) ○ Health (Kesehatan), etc. • User Segment Menu: Interfaces that target specific groups. Each segment will have a personalized homepage customized to their unique needs. For example: <ul style="list-style-type: none"> ○ Job seekers can quickly access job openings, internships, and training opportunities. ○ Students can view information on scholarships, school updates, and student-related activities. ○ Travelers can access transportation routes, tourist destinations, and accommodation information. ○ Parents can easily access school information, residency services, groceries prices, public event ○ Worker can quickly access job training, public transportation, etc. • GRID Menu Layout: Implementation of GRID menu interface which is more familiar to users because it is commonly used on other well-known platforms (e-commerce, online transportation) |
| 3 | Public Awareness | <p>Higher public awareness can lead to greater user engagement and adoption. The following strategies can be implemented to increase awareness of SAPAWARGA:</p> <ul style="list-style-type: none"> • Leveraging Existing Governor Dedi Mulyadi's Influence: The Governor of West Java, Dedi Mulyadi is highly admired and his content is followed by a wide audience from various segments of the province. Through his media, the governor can promote the benefits and services offered by Sapawarga directly to the public. This will not only benefit Sapawarga in terms of awareness but also shows the province's progressive steps in terms of public service delivery. • Collaboration in Public Events: Partnering with a highly attended public event can significantly increase public awareness of Sapawarga. For example, integrating the platform with ticketing services for concerts or sporting events such as Persib Bandung matches as the most popular team in West Java can attract a lot of attention. |
| 4 | Service Integration | <p>To encourage collaboration between provincial and local government agencies, it is critical to leverage the Governor's influence in leading this effort. Initiating a shared vision with mayors and regents for integration with cross-sectoral engagement and being shown openly to the public will drive the level of participation and collaboration in making Sapawarga as a One Stop Platform of Public Service.</p> |

| | | |
|---|--------------------|--|
| | | one of key opportunities is to utilize the annual Public Consultation Forum (FKP). FKP is a mandate issued by the Ministry of PANRB to all local governments, which requires them to host this forum at least once a year. The purpose of this forum is to ensure that the voice of the citizens related to the services provided by the government is delivered. However, the FKP should not be conducted only as a ceremonial event to fulfill the central government's mandate. With the output being a report document, the FKP should be used as an opportunity to foster meaningful communication and collaboration among local governments, stakeholders, and the public as users. By focusing on service integration, local governments can actively discuss their needs, share resources, and align their strategies to improve public services. This will not only fulfill the mandate but also create a platform for sustained collaboration and public service improvement. |
| 5 | Feedback Mechanism | Feedback is very important for getting more people to use the platform and making sure it continues to meet the needs of its growing user base. Each time a user completes a transaction on the platform, they should be asked to fill out a satisfaction survey. This survey will get useful input from users about how they used the service, which will help providers figure out what they can do better. The Organizational Bureau has already built a survey platform that can be used to combine the SAPAWARGA satisfaction survey with other surveys. This will make things easier and reduce unnecessary duplication. A number of Regional Agencies in West Java Province are already using this system. Sapawarga can make sure that all user feedback is collected and tracked in one place with the use of this established platform. The Organizational Bureau, which is in charge of making sure that the public is satisfied with the provincial government's public services, will be in charge of this. This method not only eliminates the need for the Communication and Information Agency to develop distinct survey features, but it also enhances the consistency and effectiveness of data management. Establishing up a User Community Forum is an additional way to improve the user experience in Sapawarga. This forum will be an active environment for users to share what they know, talk about their experiences, and give feedback on how they utilize the platform and its services. People who use this site can share helpful information, offer new features, and talk about problems they are having. To keep the forum continuing, it should have monthly themed conversations where people can share their thoughts on issues they want to talk about. This method helps find problems or needs that come up directly from users. Topics can be anything, such as technical problems or suggestions for new services or ways to make current ones better. The forum may help its users feel more like they own the site and be part of a community by getting them to participate. |

Based on feedback from users and a co-creation process, these new features have been developed to fill in essential gaps in the Sapawarga platform. These changes are represented to make Sapawarga a better value orchestration platform by making it easier to use, making it easier to get to services, and improving communication between essential public services. Sapawarga can make it easier and more effective for the government, citizens, and other stakeholders to work together by satisfying the different demands of the people of West Java.

Weighted Decision Matrix

To ensure effective prioritization in the implementation of new features or services in Sapawarga, it is important to know that the platform has been actively used by the public, with a growing user base. Therefore, a strategic approach is needed to prioritize the implementation of innovations to prevent annoyance or confusion for users or a condition known in the digital context as “user shock”. Too many rapid changes risk causing unfamiliarity and even resistance from the user to applications that are supposed to be used regularly. Making the right decision about which innovations to prioritize is crucial in maintaining service effectiveness.

In response to this challenge, this study used the Weighted Decision Matrix method as an analytical approach to determine the priority list of innovations to be implemented. The criteria in this decision were determined based on the results of previous interviews with Sapawarga providers. To ensure the weight of each criterion selected, the author also conducted follow up quisionaire to AGGP as Secretary of the West Java Communication and Informatics Agency. Based on these results, the main criteria and the weight are the following:

Table 6. Weighting Factor

| Criteria | Description | Weighting |
|-----------------------------------|--|-----------|
| Relevance to User Needs | How much the innovation aligns with the actual demands and pain points experienced by citizens in their daily interactions with public services. | 5 |
| Impact on User Engagement | How much the innovation can increase the frequency of application use, make users active again, and increase exploration of other services in Sapawarga. | 5 |
| Public Awareness Enhancement | Measuring how much the innovation helps people to know Sapawarga. Awareness is the foundation of acquisition and engagement. | 5 |
| Stakeholder Integration Potential | Measuring the extent of potential collaboration between stakeholders for implemented innovations. Important because Sapawarga is targeting a one-stop platform across organizations. | 5 |
| Implementation Feasibility | Measures the difficulty of implementation and how realistic the alternative is with the resources available. Relevant because government digital innovations are often hampered by bureaucracy or technical limitations. | 5 |
| Sustainability | Can the solution be continuously used, further developed, and generate benefits on a long-term basis. | 5 |
| Innovation Novelty | How much this solution introduces a new approach that is different from existing government digital services | 4 |

After finalizing the criteria and weights, the next step is to collecting assessments from relevant respondents regarding the proposed innovations. To ensure that the weighting criteria were effectively applied in prioritizing innovations, Authors focused the assessments specifically on innovations that directly affected the user experience. This approach was chosen to ensure that each innovation would be evaluated by the most relevant group. In this study, 21 users of Sapawarga were selected to rate the innovation based on seven predefined criteria. In this way, the assessment reflects the actual needs and perspectives of those who directly interact with the platform. However, internal or strategic innovations such as coordination among government agencies were not included in this assessment because they cannot be directly observed or understood by general users. Therefore, these innovations were assessed qualitatively through insights from previous interviews with providers. After data collecting, an average score per innovation was calculated, and then synthesized into a Weighted Decision Matrix (WDM). The results are presented in the following table:

Table 7. Weight Decision Matrix for Proposed Solution in Sapawarga

| Proposed Solutions | Criteria | | | | | | | TOTAL |
|--------------------|----------|---|---|---|---|---|---|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

| | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|----------------|
| Expanding services that focus on user daily needs | 20,95 | 20,24 | 18,33 | 20,24 | 18,10 | 20,95 | 15,81 | 134,619 |
| Provide personalized suggestions | 19,05 | 17,86 | 17,86 | 18,33 | 19,76 | 20,24 | 14,86 | 127,952 |
| Simplify service categories | 20,24 | 19,76 | 18,57 | 20,71 | 20,71 | 20,95 | 15,81 | 136,762 |
| User Segment Menu | 20,24 | 19,76 | 19,29 | 19,76 | 19,05 | 20,95 | 16,19 | 135,238 |
| Collaboration in Public Event | 19,76 | 20,00 | 20,24 | 20,48 | 19,52 | 20,95 | 15,62 | 136,571 |
| Adding User Community Forum feature | 18,81 | 17,62 | 18,10 | 18,81 | 20,48 | 20,24 | 14,86 | 128,905 |
| GRID-based Interface Layout | 18,57 | 19,05 | 19,76 | 20,00 | 18,81 | 19,29 | 15,43 | 130,905 |

These insights will work as an input to shape Sapawarga's future development roadmap. By aligning innovation priorities with user expectations and providers operational realities, the platform can evolve in a more appropriate and sustainable way.

Among these innovations, the initiative to expand services that focus on users' daily needs has a relatively large scope. To effectively lead its implementation, an additional survey was conducted to the same respondents to assess which service sectors they considered most important to prioritize in Sapawarga. Based on feedback from users, the three most important sectors identified were:

1. Tax services
2. Education
3. Residency

Different from the solutions assessed through the WDM, 3 internal solutions were prioritized based on qualitative findings from interviews with service provider informants. The proposed solutions are as follows: 1. Integrating the Public Satisfaction Survey (Known as SKM or *Survey Kepuasan Masyarakat*) 2. Utilizing the Annual Public Consultation Forum (Known as FKP or *Forum Konsultasi Publik*) 3. Utilizing the Governor's social media

Quantitative surveys are not conducted because they are internal and generally not directly perceived by service users. SKM integration received consistent attention from all provider informants and is prioritized first. It is because the SKM serves as a strategic tool for the provincial government to capture user satisfaction and identify areas for service improvement directly from their users. Secondly, the Annual FKP is prioritized as a formal forum mandated by the central government, in this case the Ministry of Administrative Reform and Bureaucratic Reform, but it has been underutilized for meaningful cross-institutional dialogue as mentioned by the Acting Head of the Organization Bureau. Utilizing the FKP allows various government units whether it is a provincial agency or Local Government to align on the needs of users together and co-create improvements, especially for innovations that require collaboration of multiple stakeholders. Finally, utilizing the Governor's social media can be leveraged to expand public awareness and encourage user participation. By utilizing trusted public figures who have a wide digital audience reach, Sapawarga can

encourage the public to actively engage and provide feedback. These innovation priorities complement the WDM results and provide strategic direction for Sapawarga's development roadmap.

Table 8. Proposed Sapawarga's development Roadmap

| 2026 | | | |
|---|--|--|---------------------------------------|
| Q1 | Q2 | Q3 | Q4 |
| Simpler service category releases | Piloting of Public Events Collaboration | Piloting new daily needs services and features | User Community Forum feature releases |
| User Segment Menu feature releases | Integrate Customer Satisfaction Survey system from Organizational Bureau | GRID Based Interface Layout releases | Provide personalized suggestions |
| Annual Public Consultation Forum to drive collaboration | | | Leveraging Governor Social Media |

The roadmap shown is based on the Weighted Decision Matrix analysis of the offered solutions' priorities. Each quarter includes stages of implementation aligned with the values of strategic collaboration. The Annual Public Consultation Forum is set for Quarter 1 on purpose to encourage collaboration between multiple stakeholders early on. The result is important for the success of projects like Collaboration in Public Events and Expansion of Services Focused on Users' Daily Needs in later quarters.

The main priority for Quarter 2 is to integrate the Organization Bureau's Customer Satisfaction Survey System. This earlier placement is on purpose to ensure feedback on new services and features can be gathered and looked at almost right away. Since Sapawarga services operate continuously, having the evaluation system in place while the implementation proceeds allows us get feedback quickly. This makes it easier to make changes over time and makes sure that the development stays in tune with what people really need and want. The platform can make changes that are needed within the same year by getting input early on. This will improve the quality and relevancy of future releases.

In the last quarter of the year, the Governor's Social Media Utilization plan will be put into activity to reach and inform as many people as possible, especially about new features and services that have been offered. This planned move aims to get more people to use the site and get their feedback.

CONCLUSION

The research on the development of *SAPAWARGA* as a value orchestration platform, analyzed through the lens of *Service Science*, revealed both its significant potential to improve government service access and the challenges it faces, particularly regarding low user engagement and a predominantly transactional focus. Key findings emphasized the need for enhanced usability, personalization, and service segmentation, as users reported confusion and limited awareness of features, while service providers struggled with integration and feedback mechanisms. The application of the *Value Co-Creation Model* and *Value Orchestration*

Strategy helped align stakeholders and identify gaps in participatory processes, with the *Weighted Decision Matrix* prioritizing innovations such as simplifying service categories. To support ongoing improvement and responsiveness, it is recommended that *SAPAWARGA* implement regular feedback channels, such as Public Satisfaction Surveys and Public Consultation Forum Events, to foster participation and co-creation. For future research, it is suggested to explore the effectiveness of these proposed innovations and assess their long-term impact on user engagement.

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