From seasonal Demand Pressure to Digital Public Value : The Role of Knowledge transfer in Enhancing E-government Services through the adhahi.dz Platform

من ضغط الطلب الموسمي إلى القيمة العامة الرقمية: دور نقل المعرفة في تعزيز خدمات الحكومة الإلكترونية من خلال منصة "adhahi.dz"

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Abstract:

This study examines the integration of the "adhahi.dz" platform as an emerging e-government service in Algeria's agricultural sector. The methodology we used is a documentary analysis supported by the SWOT method, and it proposes a conceptual framework linking seasonal demand pressure, digital platform integration, knowledge transfer, and e-government service improvement. The findings suggest that adhahi.dz platform can enhance transparency, reduce administrative complexity, improve institutional coordination, and support the broader digitalisation of agricultural public services.

keyword: E-government; Adhahi.dz platform; Agricultural digitalisation; Citizen-centric services.

JEL classification code : H83, O33, Q13, Q18

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1. Introduction :

The digital transformation of public administration has accelerated the transition from traditional bureaucratic service delivery toward more transparent, responsive, and citizen-centric models of governance. Within this perspective, government 4.0 emphasises the use of digital platforms, data-driven coordination, and integrated public service systems to improve administrative efficiency and public value creation. In Algeria, the Adhahi.dz platform represents an emerging e-government initiative in the agricultural sector, designed to facilitate citizens' access to sheep acquisition services during the Eid al-Adha season. This study analyses the role of the adhahi.dz platform in enhancing e-governance services, responding to recurring seasonal demand pressure linked to sheep. Accordingly, it aims to answer the following research question: *how does the integration of the adhahi.dz platform enhance e-governance service delivery and respond to citizens' needs during the Eid al-Adha season in Algeria?*

To respond to these questions, the following hypotheses are developed:

- **H1:**Adhahi.dz platform contribute to improving transparency, accessibility, and traceability in the sheep acquisition process.
- **H2:** The platform supports citizen-centric e-government service delivery.
- **H3:** Knowledge transfer dynamics support the digitalisation and sustainability of public services in the agricultural sector.

This study uses a documentary analysis supported by the SWOT method and proposes a conceptual framework linking seasonal demand pressure, digital platform integration, knowledge transfer dynamics, and improvements in citizen-centric e-government service delivery.

2. Seasonal Demand and Agricultural Market Dynamics:

Available evidence suggests that sheep consumption during Eid El-Adha in Algeria follows a structurally stable but quantitatively fluctuating pattern, with national estimates ranging between

approximately 3.5 and 5 million heads annually. While precise yearly statistics remain fragmented, micro-level survey data confirm that the ritual sacrifice is nearly universal at the household level, positioning Eid al-Adha as the primary driver of seasonal demand in the ovine meat market."

2.1. Temporal trend analysis of demand for sheep sacrificed:

Overall, the dataset in Table 1 indicates that sheep consumption during Eid al-Adha in Algeria is characterised by high structural demand, medium-term growth, temporary shock sensitivity, and rapid recovery. From an agricultural economics perspective, this confirms the importance of treating Eid demand as a recurring seasonal market driver rather than an isolated cultural event. From a public policy perspective, it supports the case for anticipatory livestock planning, seasonal market regulation, and resilience-oriented food system governance.

Table 1: Estimated sheep sacrificed during Eid al-Adha in Algeria by period

Period	*Estimated sheep sacrificed*	*Unit*	*Interpretation of phase*
2010–2015	~3.5–4.0 million	heads/year	Baseline high-demand phase
2016–2019	~4.0–4.5 million	heads/year	Expansion phase
2020	~3.0–3.5 million	heads	Disruption phase
(COVID period)	~4.0–5.0 million	heads/year	Recovery and rebound phase

Source: *Adapted from (AZIZI, 2023)*

As mentioned by AZIZI (2023) in her thesis dissertation, estimates are expressed as approximate annual volumes of sheep sacrificed during Eid al-Adha in Algeria. Ranges reflect uncertainty and variation across sources and market conditions. For 2020, the estimate corresponds to the pandemic-disrupted Eid period. According to Table 1, the dataset suggests a four-stage trajectory:

From 2010 to 2015, sheep sacrifice volumes remained structurally high, at roughly 3.5 to 4 million heads per year. This indicates a stable baseline shaped by the enduring religious centrality of Eid al-Adha and the deeply rooted socio-cultural norm of household sacrifice. From 2016 to 2019, the series entered an expansion phase, with estimates rising to 4-4.5 million heads. This upward movement is consistent with growing demographic pressure, persistent ritual demand, and a market environment capable of supplying rising seasonal consumption.

In 2020, the series shows a clear negative shock, falling to approximately 3-3.5 million heads. This break is analytically consistent with the COVID-19 pandemic, which likely affected household purchasing power, animal market functioning, mobility, logistics, and slaughter/distribution arrangements. In 2021–2022, the figures suggest a recovery and a rebound, reaching 4-5 million heads. This implies that the decline observed in 2020 was temporary rather than structural. The recovery confirms the resilience of Eid-related demand and the strong tendency of households to restore sacrificial practices once constraints ease. Furthermore, from 2023-2026, the Algerian government adopted an import strategy to cover the sector's need for sheep sacrifice, which led to high import costs. In 2023-2024, high sheep prices and cost-of-living pressures reportedly reduced actual sacrifices, even though the physical supply of sheep was adequate. Ahead of 2025 and 2026, the Algerian government announced plans to import about 1 million sheep specifically for Eid El-Adha to stabilise prices and meet demand.

2.2. Interpretation of variations:

2.2.1. Demographic growth:

One major explanatory factor is population growth, which increases the number of households potentially eligible to participate in Eid sacrifice. Even if the participation rate remains constant, absolute demand rises as the population expands. In this sense, demographic dynamics exert steady upward pressure on seasonal ovine demand.

2.2.2. Income dynamics

Sheep sacrifice during Eid is both a religious act and a significant household expenditure. Variations in real income, inflation, and

purchasing power affect households' ability to acquire animals. The growth phase before 2020 may reflect relatively stronger effective demand, whereas the 2020 decline is plausibly linked to income uncertainty and constrained household budgets. The rebound after 2020 suggests that demand is partially deferred rather than permanently destroyed.

2.2.3. Religious consumption patterns

Eid al-Adha is not an ordinary meat consumption event. It is a ritualised peak of seasonal demand with low substitutability. This reduces demand elasticity compared with conventional meat purchases. Even under adverse conditions, many households continue to engage in sacrifice behaviour, which explains the long-run stability and post-shock recovery observed in the dataset.

2.2.4. Market regulation

Supply volumes and prices during Eid are shaped by market organisation, transport conditions, veterinary control, and public intervention. Regulation can influence both affordability and availability. Increases in sacrifice volumes during the expansion and recovery phases may reflect not only stronger demand but also improved market accommodation through breeder supply, interregional circulation, and possible stabilisation measures.

2.2.5. COVID-19 shock

The 2020 decline is best understood as a compound shock affecting both demand and supply. On the demand side, households faced income stress and uncertainty. On the supply side, mobility restrictions, market disruptions, and logistical bottlenecks likely constrained livestock movement and commercialisation. This illustrates how external shocks can temporarily destabilise even highly embedded seasonal consumption systems.

2.3. Broader socio-economic implications

2.3.1. Agricultural supply chains

The data confirm that Eid al-Adha generates a sharp seasonal demand spike, placing exceptional pressure on the ovine supply chain. Breeders, traders, transporters, veterinarians, wholesalers, and local

markets must coordinate around a narrow peak period. This concentration heightens vulnerability to shortages, distribution bottlenecks, and speculative behaviour.

2.3.2. Livestock production planning

The pattern suggests that sheep production cannot be analysed solely on the basis of annual averages. It must be planned in relation to seasonal demand concentration. Breeding cycles, fattening periods, feed availability, and marketing windows should be aligned with the anticipated Eid peak. Failure to synchronise production with the sacrificial calendar may intensify price volatility and reduce market efficiency.

2.3.3. Public policy and price regulation

For policymakers, the dataset underscores that Eid al-Adha is a matter not only of religious practice but also of food system governance. Seasonal demand shocks can generate inflationary pressures, unequal access, and market instability. Public intervention may, therefore, be justified in areas such as:

- *Livestock market organisation,*
- *Veterinary and sanitary control,*
- *Transport facilitation,*
- *Anti-speculation monitoring,*
- *Support for producer readiness,*
- *Targeted affordability measures for vulnerable households.*
- *Food security and market volatility*

Although Eid sacrifice is a specific ritual practice, its scale makes it relevant to food security and market stability. Large temporary increases in ovine demand can affect meat prices more broadly, alter household consumption allocation, and amplify volatility in related agricultural inputs such as feed. Thus, sacrificial demand should be treated as a strategic seasonal variable in agricultural policy..

3. E-governement services a conceptual framework:

Government 4.0, also known as administration 4.0, refers to the digital transformation of the state by applying industry 4.0 concepts (AI, IoT, and Blockchain) to modernise public services. It aims to optimise operational efficiency, enhance transparency and foster active citizen participation through agile data-driven governance. Thus, government 4.0 is not just about technology; it is also about redesigning work processes and strengthening democratic trust through a more transparent and responsive administration grounded in public value, powered by digital technology (Sagarik et al., 2018). This value is created in a dynamic of knowledge transfer in which the user "citizen" is at the core of the process and public services are adapted to their needs and perceptions.The dynamics of citizen-centric services and knowledge transfer play a decisive role in the adoption of e-government services by transforming the traditional relationship between the state and its citizens into an interactive, adaptive ecosystem.

Customer/citizen-centric services represent a shift in public administration, moving from bureaucratic, process-oriented systems to flexible, user-focused models that prioritise the needs of individuals. The personalisation here is to use data analytics to anticipate needs (by collecting data to compile online requests to update the lists of available offers, for example, in AADL 1, AADL 2 and AADL 3). Providing an intelligent online service is based on a knowledge-transfer dynamic that equips the public sector with a proactive skill set to address the socioeconomic needs of its citizens. A rigorous way to understand the role of knowledge transfer dynamics in e-government is to treat the public sector as a knowledge-intensive system rather than a purely administrative one. In this view, the quality of digital public services depends on how effectively knowledge is created, translated, shared, and applied across institutional boundaries. Conceptualising the dynamics of knowledge transfer in e-government covers a dynamic process that refers to the continuous, bidirectional, and multi-actor processes through which knowledge flows between actors of Triphelix:

- *Government agencies (administrative knowledge),*
- *Universities and research institutions (scientific, analytical, and technological knowledge),*
- *Industry and startups (applied, user-centred, and innovation-driven knowledge),*
- *Citizens and users (experiential, contextual, and needs-based knowledge).*

Additionally, the "dynamic"dimension of knowledge transfer is based on different criteria such as an iterative process-oriented approach that leads to the ability of being adaptable to environmental change through active participation (Cruz-Sánchez et al., 2026; Lin et al., 2024), feed backloops that operate in real time to respond quickly to the problem solving in front of new or identified needs (Carreno, 2024).

Another criterion is co-creation, which refines knowledge as a dynamic interactive process rather than a static asset that allows diverse stakeholders to bridge different professional worlds, negotiate meanings and build shared understanding (Caccamo et al., 2023; Laarni et al., 2022; Mbah & Ezegwu, 2024; Medema et al., 2017), and finally a continuous adaptation of knowledge for reinforcing learning (Chen et al., 2026; Hu et al., 2025; Julian et al., 2025; Qin et al., 2023). This aligns with the Triple Helix model and open innovation logic, where knowledge is not transferred linearly but co-produced. As shown in Figure 1, this dynamic has a central role in:

- Enhancing service design through multidisciplinary knowledge integration. In this situation, e-government services require combining the following:
  - Legal-administrative knowledge (procedures, compliance),
  - Technological knowledge (AI, data systems, interoperability),
  - Behavioural knowledge (user needs, adoption patterns).
- To become a knowledge transfer enables:
  - Translation of academic research into digital service architectures,
  - Integration of startup innovation into public platforms,
  - Transformation of bureaucratic procedures into user-friendly digital workflows.

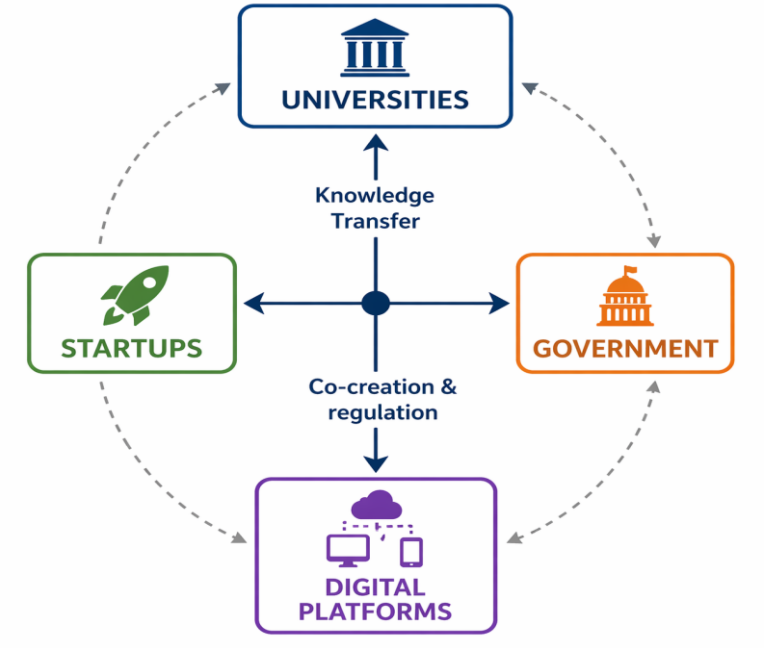
- Without this integration, digitalisation risks becoming mere automation of inefficient processes.
- Enabling innovation and adaptability in public services by supporting:
  - Rapid prototyping,
  - Policy experimentation,
  - Iterative improvement of services.
- It creates adaptive e-government systems rather than rigid digital infrastructures based on data-driven governance by:
  - Converting raw data into insights (via research and analytics),
  - Embedding AI and decision-support systems,
  - Improving evidence-based policymaking.
- It builds institutional capacity and learning by identifying the public administration needs:
  - Skill gaps in digital technologies,
  - Resistance to change,
  - Limited innovation culture.
- It leads to knowledge transfer (training, collaboration, and co-creation) that transforms government from a service provider into a learning organisation by:
  - Upskilling of civil servants,
  - Diffusion of innovation practices,
  - Development of organisational learning capabilities.

According to Figure 1, the linkage between knowledge transfer and citizen-centric services is a dynamic cycle in which citizen-centricity serves as a strategy for integrating knowledge transfer as a driving force. This link works in practice as follows:

- *From empathy to accessibility:* knowledge transfer allows citizens' difficulties on the ground (front office) to be relayed to the designers (back office). Without this flow, services remain theoretical and often inaccessible.
- *Responsiveness through shared expertise:* to be responsive, an administration must break down silos. The transfer of know-how between departments allows an agent to respond instantly to a complex request without redirecting the user to another office.

- *Personalisation through data:* knowledge of habits and real needs (from data or human feedback) must be incorporated into decision-making systems to adjust the service to each citizen's profile.
- *Continuous alignment:* Citizens' needs evolve. Knowledge transfer creates a continuous learning loop, ensuring the service doesn't become obsolete. (align with real user needs).

Fig.1: *Dynamics of Knowledge transfer to foster e-government service*



Source: *author conception*

In short, without knowledge transfer, "citizen centrality" remains a marketing promise; with it, it becomes an organizational capability.Furthermore, the role of citizen knowledge is fundamental in a modern vision of “Government as a Platform”. In this model, the administration no longer simply “delivers” services, but acts as a facilitator, enabling citizens to inject their own expertise into the public sphere. This bottom-up approach, based on incorporating citizen knowledge, transforms public services:

- *Mechanisms for capturing experiential knowledge:* citizens' knowledge (their habits, difficulties, and daily tips) is captured through structured formats that go beyond simple passive consultation:
- *Living Labs:* open innovation ecosystems where users test solutions in real-world conditions and over the long term.
- *Co-creation workshops:* using techniques like the Anchored Sailboat to graphically identify what hinders (anchors) or boosts (sails) the use of a service.
- *Participatory platforms:* tools like vTaiwan or Decidim that enable large-scale consensus-building on complex regulations.

The dynamics of knowledge transfer foster e-government services by first transforming infrastructure through the integration of pilots into ministry systems, administrative workflows, citizen interfaces, and extension networks, which represent the core mechanism for e-government scaling. This dynamic ensures that innovation moves beyond experimentation and becomes embedded in the everyday functioning of public service delivery, ultimately generating sustained public value. To summarise, digital integration transforms knowledge transfer from an informal flow into a strategic asset that continuously feeds the administrative system by using tested digital solutions that are:

- *Embedded into existing administrative infrastructures.*
- *Aligned with formal procedures and regulations*
- *Scaled for continuous, large-scale use.*

By doing so, public digitalisation could avoid public innovation failure.

4. Digital transformation for the agricultural sector into Agriculture 4.0: Case of Adhahi.dz Platform

4.1. Digital transformation for the agricultural sector:

The Algerian government is actively deploying AI (artificial intelligence) to address its major challenge, food security, amid water stress. Unlike the “adhahi.dz” platform, which manages sales, these technologies intervene directly in the fields to maximise yields, and could double in less than 5 years.

For example, startups and concrete solutions in Algeria are integrating AI (artificial intelligence) and the IoT (Internet of Things) to transform agricultural practices "Qareeb by Adam Debba" is, for example, a startup that uses edge computing and AI to optimise irrigation and crop management (wheat, alfalfa, market gardening). Its Q-Farming solution analyses data in real time to reduce water consumption while increasing crop quality. Another startup, "AITECH," offers a smart farm management platform that allows farmers to take full control of their business. It develops intelligent field management and an automated irrigation solution based on data analysis.

Gardens of Babylon" specialises in automated agriculture to address water scarcity, particularly in the western part of the country. It relies on an innovative approach using AI (artificial intelligence) and the IoT (Internet of Things).

"Smart Farm" is a startup that offers tools like Nutri+ (AI for cattle feed) and smart Torque (a smart collar for breeding), demonstrating that AI is also impacting livestock farming.

This integration of digital technologies into the agriculture sector aims at the following strategic missions:

- *Precision irrigation:* An AI-driven system uses moisture sensors and weather algorithms to drip irrigate crops precisely when they need it.
- *Drone monitoring:* Used to map fields and detect disease outbreaks or fertiliser deficiencies early, before the harvest is compromised.
- *Predictive analytics:* Models analyse decades of climate data to generate seasonal forecasting systems, helping farmers choose the best planting and harvesting times.

Initiatives such as the AGRI-SAHRA challenge and the Algerian Agripreneurs program actively support these innovations to sustainably modernise the sector.

4.2. E-government Services through the adhahi.dz Platform

The digital platform "adhahi.dz" represents an emergent initiative within Algeria's agricultural and livestock service ecosystem, reflecting

broader efforts to transform public services through digitalisation. The platform can be interpreted as a proto–e-government solution aimed at improving coordination between citizens, farmers, and institutional actors.

This innovative service, "adhahi.dz," introduces a digital interface for service access and coordination, thereby aligning with national ambitions for e-government development and a digital economy transition. From a theoretical standpoint, the platform can be positioned at the intersection of:

- *Digital government transformation,*
- *Platform-based service delivery,*
- *Promoting e-governance service*

Technically, this platform has over 300 official points of sale distributed nationwide; also, the path is clear and reliable at 100%, and all stages are recorded. This platform is a "Buying Experience" at 100% digitalisation, based on simplicity and transparency, designed to facilitate the buying process and ensure the healthy quality of every head. The user of this platform has to follow three steps to be served:

- Step 1 "*Create your account*": This is the first step of registration; it is based on a quick flow using the user's phone number and national identification number (NIN/CNIBE) .
- Step 2 "*Fill out your request*": Then the user fills out the Eid al-Adha sacrifice reservation request form according to the exact area of their residence.
- Step 3 "*Await your appointment*": At this stage, the administration will assign the user a specific time to come, pay, and collect their sacrifice.

After these steps, payment facilities follow; the platform enhances the user experience with e-payment methods by giving them greater attention. The fact that online payment is discounted makes users more attracted to it. Three offered options are indicated in "adhahi.dz", a Gov to C service payment:

- *Cash payment* of 50,000 DZD local currency at the sales point,
- *Payment Terminal (TPE)* at 49.000 DZD local currency saving a Debit of -1.000 DZD.

- *Secure online payment* via the SATIM gateway using an Edahabia card or a CIB bank card at 48.000 DZD in local currency, saving a Debit of -2.000 DZD.

Hence, the platform's full institutional architecture is not explicitly formalised; its functional logic suggests that it operates as a digital intermediation system that enables:

- *Streamlined access to agricultural or livestock-related services,*
- *Improved coordination between users and service providers,*
- *Partial digitisation of administrative procedures,*
- *Enhanced visibility and traceability of transactions or processes.*

Throughout this innovative digital public service "adhahi.dz" shifts the service delivery model from a bureaucratic, location-bound system to a digitally mediated, user-accessible platform, thereby reducing transaction costs and facilitating broader participation. The citizens are aware of the importance of transparency in information disclosure during login and account registration, as customers' demands for this service require knowledge of transparency and a responsibility to provide all the necessary information about the service.

4.3. SWOT Analysis Adhahi.dz Platform

To evaluate the contribution of the adhahi.dz in the Algerian agricultural sector, this study uses a qualitative SWOT analysis to examine the adhahi.dz platform for e-government service delivery. It is an appropriate strategic diagnostic tool because it allows the identification of the platform's internal strengths and weaknesses, as well as the external opportunities and threats that influence its development, implementation, and sustainability.

Through SWOT analysis, we need to deepen our understanding of how the platform supports citizen-centric public service, transparency, coordination, and digital transformation in the livestock sector during Eid al-Adha. The analysis is based on a document-based case study approach, using the available information about the adhahi.dz platform, its services, processes, payment options, institutional functions, and their relation to sheep consumption dynamics during Eid al-Adha.

The platform is analysed as a digital public service innovation designed to respond to a recurring seasonal demand pressure. According to previous data cited on Eid El Adha consumption in Algeria, the range is approximately 3.5 to 5 million heads annually, creating strong seasonal pressure on the livestock market and public administration. This high-volume demand justifies the need for a digital coordination mechanism capable of improving access, transparency, and organisation. The methodological logic of the swot analysis follows four dimensions, as shown in Figure 2. It helps clarify how adhahi.dz can move from being a temporary digital reservation platform toward a more integrated e-governance and agricultural governance mechanism.

Fig.2: *SWOT Analysis adhahi.dz Platform*

Strength	***Opportunity***
• Digital access to services • Transparency and traceability • Centralized information platform • Scalability potential • Data generation for governance • Alignment with digital strategy	• National digital agriculture platform • AI integration • Policy integration • Regional scalability
Weakness	***Threat***
• Digital divide • Usability challenges • Data governance gaps	• Institutional resistance • Low user trust/adoption • Financial sustainability • Cybersecurity risks • Fragmentation of initiatives • Social exclusion

Source: *author conception*

The SWOT analysis demonstrates that adhahi.dz platform represents an important step toward digital public service innovation in Algeria's agricultural sector. According to Figure 2, the analysis of internal factors indicates the following findings:

4.3.1. Strength:

The platform provides a structured and simplified digital process for citizens. The platform is well-designed, and users can create an account, submit a request, and receive an appointment for payment and collection. This reduces administrative complexity and improves service predictability. Also, the platform enhances transparency through clear procedures, standardised prices, and different payment options. It supports traceability because all service stages are recorded.

4.3.2. Weakness:

The platform may exclude citizens with limited digital literacy or weak internet access. Its impact also depends on the reliability of the digital infrastructure and on public institutions' ability to manage large-scale seasonal demand. Another weakness is that the platform mainly focuses on Eid al-Adha service delivery, which may limit its broader integration into permanent agricultural governance systems.

The external factor indicates the following findings:

4.3.3. Opportunity:

The Adhahi.dz platform can support Algerian Government 4.0 by promoting digital public services, e-payment adoption, and data-driven governance. It can also serve as a tool for improved livestock market regulation, demand forecasting, veterinary control, and agricultural planning. The platform may be expanded to connect citizens, breeders, startups, universities, and public institutions within a broader knowledge transfer ecosystem.

4.3.4. Threat:

The platform may face challenges related to cybersecurity and data protection, resistance from traditional market actors, and citizen mistrust of online administrative services. Market volatility, inflation and high sheep prices may also limit citizen satisfaction even when the digital service itself is efficient. If the platform is not continuously updated and institutionally integrated, it may remain a temporay solution rather than a sustanabale e-government model.

4.4. Results interpretation of the adhahi.dz Platform SWOT Analysis

The SWOT analysis shows that the main strength of adhahi.dz lies in its capacity to transform a traditionally complex and seasonal

livestock transaction into a more organised digital public service. The platform offers Algerian citizens a clear service pathway based on registration, request submission, appointment allocation, and payment. This structure helps reduce uncertainty and improve service accessibility. Another important strength is transparency.

The platform provides clear payment options, including cash, payment terminal, and online payment via the SATIM gateway using Edahabia or CIB cards. The existence of differentiated prices based on payment method encourages citizens to use digital payments and supports the broader development of electronic transactions in public services. This finding is important because digital payments are not only a financial mechanism; they are also part of the transformation toward more traceable and accountable e-government services.

The platform also contributes to coordination and traceability. During the Eid al-Adha season, demand for sheep is highly concentrated in time, placing pressure on breeders, administrative authorities, veterinary services, and citizens. By recording requests and organising appointments, adhahi.dz can reduce market disorder and improve institutional monitoring. This confirms that the platform should not be interpreted only as a reservation website, but as a digital coordination infrastructure.

However, the analysis also identifies several weaknesses. The first concerns digital inclusion. Citizens who lack internet access, digital skills, electronic payement tools, or confidence in online platforms may find it difficult to use the service. This creates a risk of unequal access, especially for rural populations, elderly users, or low-income households. Therefore, the success of adhahi.dz depends not only on its technical design but also on citizen readiness and digital literay.

A second weakness concerns the platform's limited institutional scope. If the platform remains limited to a seasonal function, its long-term impact on agricultural governance may remain restricted. To become a real Government 4.0 tool, it should be integrated into broader systems such as livestock databases, veterinary control systems, agricultural extension networks, and market monitoring platforms.

The opportunities are significant; adhahi.dz can contribute to Algeria’s digital transformation by promoting Government 4.0, citizen-centric services, and data-driven public administration. According to

our conceptual framework of government 4.0, the application of industry 4.0 technologies, such as AI, IoT, and blockchain, helps modernise public services and improve transparency, efficiency, and citizen participation. In this perspective, adhahi.dz may become a practical example of how digital platforms can transform agricultural public services.

The platform also offers opportunities for knowledge transfer. It can collect data on citizen demand, regional distribution, payment preferences, livestock availability, and service difficulties. This information can be transformed into useful knowledge for policymakers, breeders, researchers, and startups. In this context, adhahi.dz can support better planning of sheep supply, more effective price regulation, and improved coordination between government and agricultural actors. Nevertheless, the threats should not be underestimated. Cybersecurity risks, personal data protection, system overload during peak demand and resistance from informal market actors may reduce the platform's effectiveness. Moreover, citizen satisfaction may be affected by factors outside the platform, such as high prices, insufficient supply, or logistical problems. This means that the platform's digital efficiency must be accompanied by strong market regulation and reliable agricultural supply chain management.

5. Conclusion :

This study examined the adhahi.DZ Platform is an emerging e-governance initiative designed to improve the organisation, transparency and accessibility of sheep acquisition during Eid al Adha in Algeria. The analysis shows that the platform responds to strong seasonal agricultural demand, which puts pressure on livestock markets, public authorities, and citizens.

By offering a structured digital process based on registration, request submission, appointment allocation,and payment options, adhahi.dz contributes to reducing administrative complexity, strengthening traceability, encouraging digital payments, and improving citizen access to public services. Indeed, the platform reflects the principles of Government 4.0, where digital technologies support

citizen-centric service delivery, institutional coordination, and public value creation.

However, this study remains limited by its conceptual and document-based approach, as it does not include primary empirical data from citizens, breeders, administrative actors, or platform managers due to a lack of official statistical data. It also does not provide a quantitative measure of the platform's impact on citizen satisfaction. Future research should therefore empirically assess the effectiveness of adhahi.dz and compare it with other e-government platforms in Algeria and similar contexts.

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