The Digital Transformation Benefits and Comparison Between the Current and Past For Absher Platform and Elm

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Abstract: This research paper analyzes the current state of digital transformation in Saudi Arabia, focusing on the evaluation of progress and identification of areas for improvement. A conceptual analysis approach is used, examining the benefits of digital transformation, and conducting a comparative analysis of the Absher and ELM platforms. Data from academic databases, industry reports, and official documents is synthesized using thematic analysis. The findings highlight the need for key recommendations to advance digital transformation in Saudi Arabia. The main recommendations include strengthening privacy and security measures for platforms like Absher, improving user experience by streamlining processes and enhancing interfaces, bridging the digital divide through infrastructure development in rural and low-income areas, and fostering collaboration among government entities, private organizations, and technology providers. Additionally, enhancing digital skills and literacy through training programs for citizens, businesses, and government employees is essential. Continuous evaluation and updating of strategies, promoting transparency and accountability in the development and delivery of digital services, and fostering an innovation-friendly environment are also crucial. Implementing these recommendations will propel Saudi Arabia's digital transformation, ensuring privacy, improving user experience, reducing the digital divide, fostering collaboration, enhancing digital skills, and embracing innovation. These efforts will position the country as a leader in the global digital economy.

Key Words: Digital transformation, Saudi Arabia, Absher, ELM .Saudi Arabia .

1.Introduction:

The operational structure of numerous sectors all over the world is changing because of the exceptional paradigm shift brought about by the rapid progress of digital technology (Smith et al., 2021). Public services have undergone one such dramatic transition, with governments utilizing digital platforms to optimize and streamline services for citizens. This study examines the digital transition of the Elm and Absher platforms with a focus on a comparison of the historical and contemporary digital infrastructures. The innovative use of technology in public services is demonstrated by the Saudi Arabian government's Absher e-service platform and Elm, a local provider of digital solutions (Johnson, 2022). Their evolution over time offers a singular scenario to comprehend the advantages and difficulties associated with such digital overhauls. Building on the ground-breaking work of Jones and Kumar (2023), who emphasized the significance of digital platforms in enhancing public service efficiency, this research aims to examine these developments.

Studies on digital transformation have become increasingly popular in recent years, with many academics emphasizing its advantages, including increased effectiveness, accessibility, and consumer happiness (Lee, 2023). However, the comparison of such digital platforms' historical and present conditions, with a particular focus on Absher and Elm, is largely unexplored. This paper offers a thorough evaluation and comparison of various platforms to close this research gap.

In addition to providing insights into Absher and Elm's journey toward digital transformation, this paper adds to the greater conversation about the digitalization of public services by supporting the ground-breaking work of scholars like Taylor (2022). Future policies and digital strategies may be guided by the findings of this study, which could increase citizen involvement and satisfaction with public services.

2.Problem Statement:

In recent years, digital transformation has become a key focus for governments around the world as they seek to enhance the delivery of public services. Absher platform and ELM are two examples of digital platforms that have been implemented by the government of Saudi Arabia to improve the efficiency and effectiveness of public services. However, there is a need to critically examine the benefits of digital transformation and compare the current and past states of the Absher platform and ELM. Specifically, there is a lack of understanding regarding the impact of digital transformation on the user experience of these platforms, as well as the extent to which digital transformation has improved the efficiency and effectiveness of public services. Additionally, there is a need to identify areas for further improvement in the digital transformation of the Absher platform and ELM. Therefore, the aim of this research study is to address these gaps in knowledge by conducting a comparative analysis of the benefits of digital transformation and a comparison between the current and past states of the Absher platform and ELM.

3. Research Objectives:

1. Evaluate the current situation of digital transformation in Saudi Arabia and develop a comprehensive strategy for improvement.

2. Conduct a comparative analysis between the Absher platform and ELM, examining their current and past functionalities and capabilities.

4. Research Questions:

1. What is the current level of digital transformation in Saudi Arabia across different sectors?

2. What are the key functionalities and services offered by the Absher platform and the ELM platform, and how do they compare in terms of their capabilities?

5. Research Methodology:

1. Research Design: The research design for this study will be a conceptual analysis. This design will allow for a critical examination of the digital transformation benefits and a comparison between the current and past states of the Absher platform and ELM from a theoretical perspective.

2. Data Sources: The data for this study will be collected from academic databases such as Google Scholar, Scopus, and the Web of Science, as well as industry reports, official documents, and other relevant sources.

3. Data Selection: The data selection process will involve a systematic review of the literature using keywords related to digital transformation, Absher platform, and ELM. The review will be

limited to studies published in English between 2010 and 2023. The studies will be screened based on their relevance to the research questions and objectives.

4. Data Synthesis: The data collected will be synthesized using a thematic analysis approach. The synthesis will involve identifying patterns and themes across the literature, categorizing the findings, and synthesizing the results considering the research questions and objectives.

5. Ethical Considerations: Ethical considerations will be considered in this study. In particular, the study will comply with relevant ethical guidelines and regulations regarding the use of published literature.

6. The significance and justifications of the study:

The justification for this research stems from multiple domains, reflecting both the significance of digital transformation in public services and the specific implications it holds for platforms such as Absher and Elm.

Firstly, the onset of the digital era has seen the mass adoption of technology across numerous sectors, reshaping traditional operations and expectations (Smith et al., 2021). This transformation is especially significant within the realm of public services, where the adoption of digital technologies can streamline processes, enhance accessibility, and boost citizen satisfaction (Lee, 2023). However, there is still a need to better understand this digital shift, its implications, and the ways to optimize it. This research attempts to address these aspects, thus aligning with the growing body of literature underscoring the importance of digital transformation.

Secondly, while the positive impacts of digitalization are generally recognized, the literature lacks a deep and comparative analysis between past and current digital states, particularly in the context of specific platforms such as Absher and Elm (Johnson, 2022). This study endeavors to bridge this gap by offering an empirical lens to observe and understand the nature of this transformation over time.

Finally, insights derived from this comparative analysis can guide the design and implementation of digital strategies not only within Saudi Arabia but also in other countries seeking to leverage technology in public services (Jones & Kumar, 2023). Given the global push towards digitalization, this research holds broad relevance and potential impact, thus justifying its undertaking.

7. Definition of Key Terms:

1. **Digital Transformation:** "Digital transformation refers to the integration of digital technology into all areas of a business or organization, fundamentally changing how it operates and delivers value to customers, employees, and stakeholders" (Westerman, Bonnet, & McAfee, 2014, p. 3). In the context of this study, digital transformation refers to the use of digital technology to improve the efficiency and effectiveness of public services provided through the Absher platform and ELM.

2. **Absher Platform**: The Absher Platform is a digital platform developed by the government of Saudi Arabia to provide a range of government services to citizens and residents. The platform allows users to access services such as healthcare, education, and transportation, as well as perform administrative tasks such as renewing passports and paying fines (Ministry of Interior, Saudi Arabia, 2021).

3. **ELM**: ELM is a Saudi Arabian company that provides a range of digital solutions and services, including government services through its ELM Government Services division. The company's services include digital platforms for healthcare, education, and transportation, as well as e-commerce and logistics solutions (ELM, 2021).

8. Literature Review:

1. Alshamrani and Bahattab (2021) investigated the current and future initiatives of digital transformation in Saudi Arabia. The study used a qualitative research approach and analyzed official documents and industry reports. The study found that the government of Saudi Arabia has made significant progress in digital transformation, but there is a need for more integrated and coordinated efforts to achieve the full potential of digital transformation.

2. Alshathri (2019) examined the opportunities and challenges of digital transformation in Saudi Arabia. The study used a qualitative research approach and analyzed academic literature and industry reports. The study found that digital transformation can improve the efficiency and effectiveness of public services, but there are challenges related to infrastructure, cybersecurity, and human resources.

3. Alzahrani and Alsharif (2020) analyzed the trends, opportunities, and challenges of digital transformation in Saudi Arabia. The study used a qualitative research approach and analyzed academic literature and official documents. The study found that digital transformation can enhance the competitiveness of Saudi Arabia's economy, but there is a need for more investment in infrastructure and human capital.

4. Alqahtani and Alharthi (2021) evaluated the impact of digital transformation on the healthcare sector in Saudi Arabia. The study used a mixed-methods research approach and collected data from healthcare professionals and patients. The study found that digital transformation can improve the quality and accessibility of healthcare services, but there are challenges related to privacy and security.

5. Alshehri and Almohamadi (2020) conducted a comparative analysis of the digital transformation of public services in Saudi Arabia and the United Arab Emirates. The study used a quantitative research approach and analyzed official documents and industry reports. The study found that both countries have made significant progress in digital transformation, but there are differences in the level of adoption and implementation.

6. Alhothali and Almutairi (2021) investigated the impact of digital transformation on the education sector in Saudi Arabia. The study used a qualitative research approach and collected data from teachers and students. The study found that digital transformation can improve the quality and accessibility of education, but there are challenges related to digital literacy and infrastructure.

7. Alghamdi and Alhazmi (2020) examined the role of digital transformation in promoting economic growth in Saudi Arabia. The study used a quantitative research approach and analyzed official data and industry reports. The study found that digital transformation can enhance the competitiveness of Saudi Arabia's economy and create new opportunities for entrepreneurship and innovation.

8. Alhawiti and Alqahtani (2021) evaluated the impact of digital transformation on the financial sector in Saudi Arabia. The study used a mixed-methods research approach and collected data from financial professionals and customers. The study found that digital transformation can improve the efficiency and accessibility of financial services, but there are challenges related to cybersecurity and regulation.

9. Alzahrani and Alharbi (2020) conducted a systematic literature review to explore the factors influencing the adoption of digital transformation in the public sector of Saudi Arabia. The study found that factors such as leadership, organizational culture, and digital infrastructure play a crucial role in the successful adoption of digital transformation in the public sector.

10.   Almehmadi et al. (2021) investigated the impact of digital transformation on the transportation sector in Saudi Arabia. The study used a qualitative research approach and collected data from transportation professionals and users. The study found that digital transformation can improve the

efficiency and safety of transportation services, but there are challenges related to infrastructure and regulation.

Overall, the literature suggests that digital transformation has the potential to improve the efficiency and effectiveness of public services in Saudi Arabia. However, there are challenges related to infrastructure, cybersecurity, and human resources that need to be addressed. The literature also highlights the importance of leadership, organizational culture, and digital infrastructure in the successful adoption of digital transformation in the public sector of Saudi Arabia.

9. Results:

9.1 Evaluate the current situation of digital transformation in Saudi Arabia and develop a comprehensive strategy for improvement.

In Saudi Arabia, the announced national Transformation Program aims to increase non–oil revenues from SR162 billion ($43 billion) this year to SR1 trillion by 2030 when oil sales are projected (Al-Ruithe et al., 2018). Accordingly, surveys executed internally within government organizations during 2016–17 reveal that many public entities remain lethargic about change. However, one exception may be SAGIA's newly minted Transform program which focuses on culture and behaviour as much as investments and challenging targets—for instance, overhauling visa issuance to ease travel restrictions (Albarrak & Alokley, 2021). A most visible sign of success has been burgeoning e-commerce sites such as Amazon Saudi, which now reportedly dominates nearly 70% of online spending.

Technology in Saudi Arabia has been evolving rapidly over the past few decades. In recent years, there has been a dramatic increase in internet usage and smartphone ownership in the country. This has led to the development of new platforms and services that cater to the needs of Saudi Arabian citizens. One such platform is Absher, launched by the government in 2017. Absher is an online platform that provides various services for Saudi citizens, including e-services related to passports and travel visas, birth registration, marriage registration, divorce proceedings, and traffic violations. The platform also allows users to track their vehicles' locations via GPS tracking (Muzafar & Jhanjhi, 2020). The launch of Absher was met with mixed reactions from the Saudis. Some saw it as a convenient way to access government services without having to go through paper processes or visit government offices personally. Others were concerned about privacy breaches and possible implications for women's rights (Mal et al., 2020).

Digital transformation has increased productivity and efficiency. One of the most significant benefits of digital transformation is the increased productivity and efficiency that it brings about (Eaves & Clement, 2020). By automating tasks that would otherwise be done manually, businesses can free up their employees' time to focus on more value-added activities. Additionally, digitization can help eliminate errors and improve accuracy since machines carry out tasks instead of humans. A study by McKinsey found that digitization could potentially add $13 trillion to the global economy by 2030, with a large chunk of this coming from increased productivity (Schilirò, 2020). Another benefit of digital transformation is the improved customer experience that it enables.

With the help of technology, businesses can now offer more personalized service to their customers at all stages of the customer journey (Aly, 2020). From pre-purchase research to post-purchase support, customers can expect a more seamless and tailored experience when interacting with a digitally transformed business. Furthermore, technology has also made it easier for businesses to collect customer feedback and use it to improve their products and services. Besides, digital transformation has contributed

to increased agility and flexibility (Matyushok et al., 2021). Businesses are now able to respond rapidly to changes in the market and adapt their operations accordingly. For instance, businesses can quickly scale up their production using automated processes if there is a sudden surge in demand for a particular product.

Businesses can also use cloud-based technologies to deploy new services and applications quickly and easily (Khan et al., 2017). This increased agility can lead to a competitive advantage for businesses that can capitalize on opportunities more quickly than their rivals. Lastly, digital transformation can also help businesses make better decisions. Thanks to digitization, businesses can gather insights that were previously not possible with the vast amount of data that is now available. By analyzing this data, businesses can make more informed decisions about their operations, products, marketing, and more.

Additionally, with the help of artificial intelligence (AI), businesses can automate the decision-making process to focus on other strategic tasks (Akerkar, 2019).Overall, the benefits of digital transformation are numerous and significant. Businesses can increase their productivity and efficiency by digitizing their operations, improving the customer experience, becoming more agile and flexible, and making better decisions. In today's day and age, it is becoming increasingly necessary for businesses to undergo digital transformation to stay ahead of the curve.

The Kingdom of Saudi Arabia has embarked on a journey of digital transformation in order to compete in the global economy and become a leading player within the region (Memish et al., 2021). The government is spearheading this process through initiatives such as ELM and Absher, which aim to provide citizens with easy access to online services and create a more efficient bureaucracy. Critics claim that this will lead to increased surveillance and control over citizens. In contrast, others argue that the country must keep up with regional rivals such as Qatar, the UAE, and Bahrain.

ELM was launched in 2017 as part of Crown Prince Mohammed bin Salman's 'Saudi Vision 2030' reform plan. The platform provides Saudis quick and easy access to over 1,000 government services, including birth certificates, driver's license renewals, and linking utility accounts (Almuammar, 2017). To best utilize ELM, users must create an account linked to their National Identification Number (NIN), which can be done by registering on Absher, another initiative created by MbS. Once registered on both platforms, almost any interaction between citizens and the state can becarried out without ever having to visit a government office in person.

On the one hand, it could be argued that ELM and Absher have positively impacted Saudi Arabian society due to their facilitation of communication between users (Taff et al., 2017). The platform's ability to connect individuals from different parts of the country has created new opportunities for collaboration while also allowing people to stay in touch with distant family members or friends (Cai et al., 2021). Another benefit is that women, in particular, have greater access to information and resources through these platforms; prior to their existence, significant barriers prevented them from accessing many online services.

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9.2. Conduct a comparative analysis between the Absher platform and ELM, examining their current and past functionalities and capabilities

In recent years, the digital platform Absher has gained increasing popularity in Saudi Arabia (Algarni, 2020). The Saudi government has been commended for its efforts to modernize the country and enhance its accessibility to the global community through the launch of the Absher e-government platform. However, the present usage of the Absher platform in Saudi Arabia has raised concerns regarding women's rights (Muzafar & Jhanjhi, 2020). Critics argue that the platform can be exploited to monitor and restrict women's movements, citing instances where individuals have utilized Absher to prevent their daughters from leaving the country. Such incidents have sparked worries about potential privacy infringements and the surveillance of women. Nevertheless, despite these concerns, the Absher platform remains widely utilized in Saudi Arabia, with an estimated user base exceeding 10 million (Althuwaini & Salem, 2021). This can be attributed to the platform's convenient features, including passport and driver's license renewal, access to government services, and online fine and fee payments. Furthermore, the availability of the Absher platform in Arabic ensures accessibility for a diverse range of users.

The historical usage of the Absher platform in Saudi Arabia is also noteworthy, as it was first introduced in 2007 and has steadily expanded since then. Initially developed as a means for Saudi citizens to access government services, the platform has been employed for various other purposes as well. For instance, reports in 2015 indicated the use of the Absher platform for monitoring Hajj pilgrims, revealing its potential for surveillance in addition to administrative functions (Abdullah & Kim, 2022). Overall, the current and past utilization of the Absher platform in Saudi Arabia holds significant implications.

In Saudi Arabia, the government utilizes the ELM platform to provide online services to citizens and businesses (Khashaba et al., 2022). The platform has effectively facilitated e-government, e-commerce, and e-learning services. However, certain challenges must be addressed to ensure the platform's efficacy. Scalability emerges as a significant obstacle facing the ELM platform (Khashaba et al., 2022). It must possess the capacity to accommodate the increasing number of users and transactions, aligning with the demands of Saudi Arabia's expanding population and economy.

Moreover, to sustain high adoption rates, it is essential to enhance awareness of the platform's existence and capabilities among potential users. Additionally, clear instructions should be provided by entities employing the ELM platform, guiding users on system usage and reporting any failures or performance issues for prompt resolution. Another critical challenge pertains to cyber security, as storing sensitive data on servers could pose risks if accessed by hackers. In response, the Saudi Arabian Communications Commission (CAC) has implemented various measures, including mandating the utilization of certified cybersecurity solutions by service providers and conducting regular risk assessments (Wyne et al., 2017).

The current landscape suggests that Saudi Arabia has made commendable strides in implementing an integrated digital transformation strategy through the ELM platform. However, further efforts are required to address critical pain points associated with the user experience, clarify technical directions for specific aspects, and ensure data privacy protection. It is crucial to address these concerns to mitigate potential misuse or unauthorized access to shared information, particularly regarding the entities responsible for application development.

Absher and ELM have been leveraged to enhance public satisfaction with service delivery, particularly in Saudi Arabia's digital economic transformation (Alluhidan et al., 2022). For example, Absher has been utilized to conduct non-communicable disease surveys, providing accurate information on health indicators such as smoking habits, diabetes, and hypertension. These technologies have facilitated increased efficiency in the delivery of public services, enabling the transition from offline and paper-based processes to online platforms, saving time and effort for both citizens and government employees. Furthermore, the availability of public services online promotes transparency and accountability, allowing citizens to track service requests and report issues with specific agencies or departments (Allam et al., 2021). Additionally, e-government platforms like Absher contribute to civic engagement by providing easy access to information on voting procedures and local community events (Albarrak & Alokley, 2021).

The Saudi government has long pursued digitization to improve efficiency and services, ultimately striving for a knowledge-based economy (Mal et al., 2020). Notably, the digital transformation has streamlined processes such as the issuance of ID cards, eliminating the need for physical visits to government offices (Mal et al., 2020). This not only saves time but also reduces the opportunities for corruption and favoritism associated with manual systems. The Tatweer Schools initiative under the Ministry of Education has also embraced digitalization, creating a "smart campus" where learning materials are stored electronically for easy access and efficient resource utilization (Tayan, 2017). This approach enables personalized instruction and enhances parental involvement in student achievement tracking, eliminating the need for physical visits to schools (Alyami, 2016).

However, it is crucial to acknowledge and critically examine the drawbacks and challenges posed by digitization. The digital divide, lack of physical infrastructure, economic access, and technical skills disproportionately affect lower-income families and rural areas, limiting the widespread exploitation of digital technologies (Alluhidan et al., 2022). These social disparities may hinder the achievement of the 2030 Saudi

Strategic Goals. Therefore, it is essential to assess the overall efficacy of the Absher platform and ELM by comparing them with traditional methods, considering potential drawbacks and challenges.

The Absher platform and ELM are two of the most significant digital platforms in Saudi Arabia. Absher, launched by the government in 2017, provides various services for Saudi citizens, including e-services related to passports and travel visas, birth registration, marriage registration, divorce proceedings, and traffic violations. The platform also allows users to track their vehicles' locations via GPS tracking (Muzafar & Jhanjhi, 2020). On the other hand, ELM is a private company that provides software solutions and services to businesses and government organizations in Saudi Arabia. The company has been at the forefront of the country's digital transformation, providing solutions for e-government, e-commerce, and mobile applications.

A comparative analysis of the Absher platform and ELM reveals several similarities and differences. In terms of the present, both platforms are widely used in Saudi Arabia and have significantly impacted the country's digital landscape. Absher has made government services more accessible and convenient for citizens, while ELM has enabled businesses and government organizations to streamline their operations and improve efficiency.

However, there are also significant differences between the two platforms. Absher is a government platform that provides services to citizens, while ELM is a private company that provides solutions to businesses and government organizations. Additionally, Absher has faced criticism over concerns about privacy breaches and implications for women's rights, while ELM has not faced similar criticisms.

In terms of the past, Absher and ELM have taken different paths to reach their current positions. Absher was launched as part of the government's efforts to modernize and digitize its services, while ELM was founded as a private company in 1984 and has since grown to become one of the leading providers of software solutions in the country. Despite their different origins, both platforms have contributed significantly to Saudi Arabia's digital transformation. Absher has made government services more accessible and efficient, while ELM has helped businesses and government organizations to become more competitive and agile in the digital age.

In conclusion, while there are similarities and differences between the Absher platform and ELM, both have played significant roles in Saudi Arabia's digital transformation. As the country continues to embrace digital technologies, it is likely that both platforms will continue to evolve and play important roles in shaping the country's digital landscape.

10. The Conclusion

In conclusion, the current situation of digital transformation in Saudi Arabia reveals both progress and challenges. The government's efforts, such as the national Transformation Program and initiatives like SAGIA's Transform program, demonstrate a commitment to modernization and diversification of the economy. The increasing adoption of digital technologies, reflected in the popularity of platforms like Absher and ELM, has facilitated greater convenience and accessibility for citizens.

However, concerns about privacy, surveillance, and potential implications for women's rights have been raised regarding the Absher platform. These concerns highlight the importance of balancing technological advancements with ethical considerations and safeguarding individual rights.

The comparative analysis between the Absher platform and ELM reveals their significant impact on Saudi Arabia's digital landscape. Absher has streamlined government services and improved efficiency for citizens, while ELM has played a crucial role in enabling businesses and government organizations to

embrace digital transformation. Both platforms have contributed to increased productivity, efficiency, and transparency.

The benefits of digital transformation in Saudi Arabia include enhanced customer experiences, increased agility and flexibility, improved decision-making, and the potential for economic growth. However, challenges such as the digital divide, infrastructure limitations, and cybersecurity risks need to be addressed to ensure equitable access, sustainability, and data protection.

In the light of these findings, it is clear that Saudi Arabia's digital transformation journey is complex and ongoing. It is essential to sustain efforts in evaluating the current situation, identifying challenges, and developing comprehensive strategies for improvement. Prioritizing user experience, privacy protection, and inclusive digital access will be vital in driving successful digital transformation in Saudi Arabia. Overall, the government's commitment to digital transformation, coupled with advancements in technology and increased digital adoption, provides a solid foundation for further progress. By addressing challenges, leveraging best practices from successful initiatives, and fostering collaboration among stakeholders, Saudi Arabia can continue its digital transformation journey towards achieving its Vision 2030 goals and positioning itself as a leading player in the global digital economy.

11. Recommendations

Based on the major results, the following concise recommendations can be made:

1. Strengthen privacy and security measures for platforms like Absher, addressing concerns raised regarding surveillance and privacy breaches.

2. Improve user experience by streamlining processes and enhancing user interfaces of digital platforms.

3. Bridge the digital divide by investing in infrastructure development in rural areas and lower-income communities.

4. Foster collaboration and partnerships between government entities, private organizations, and technology providers.

5. Enhance digital skills and literacy through training programs for citizens, businesses, and government employees.

6. Continuously evaluate and update strategies to stay aligned with evolving needs and goals.

7. Promote transparency and accountability in the development and delivery of digital services.

8. Foster an innovation-friendly environment to encourage entrepreneurship and the adoption of emerging technologies.

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