The Role of Leadership And Communication in AI Assimilation: Case Studies From Saudi Arabia's Public Sector Organizations

Abstract

Purpose This study examines the influence of leadership practices and communication channels on the assimilation of artificial intelligence (AI) in Saudi Arabia's public sector. It investigates how leaders allocate attention and employ formal and informal mechanisms to implement AI and Generative AI (GenAI) initiatives.

Design/methodology/approach
The study adopts a qualitative multiple case study approach, using the Attention-Based View (ABV) theory. Data were collected through semi-structured interviews with senior decision-makers in three Saudi government organizations and analysed thematically.

Findings
The findings reveal that leadership attention serves as a pivotal force in determining organizational priorities, resource distribution, and approaches to institutional and technological hurdles. Furthermore, the relationship between leadership decisions and AI adoption is evident throughout the study. Strong leadership support not only facilitated the integration of AI, but also helped overcome institutional resistance. The study highlights how leadership-driven attention and targeted communication directly accelerate the assimilation of GenAI, chatbots, analytics, and biometric systems, thereby transforming public service delivery and organizational effectiveness.

Originality/value
This study advances ABV theory by demonstrating that targeted leadership communication, when strategically aligned with national development priorities, significantly accelerates AI assimilation in non-Western public sector organizations. By identifying how leaders prioritize AI initiatives and shape organizational attention through both formal channels and informal influence, the research uncovers mechanisms unique to these institutional contexts. These insights offer actionable guidance for policymakers and organizational leaders seeking to foster effective AI adoption beyond Western settings, and lay a foundation for future research exploring context-sensitive strategies for technology integration.

Keywords: Artificial Intelligence; Generative AI; Public Sector; Leadership; Communication Channels; Attention-Based View.

1. Introduction

Defining AI presents linguistic and contextual challenges. Dwivedi et al. (2021) propose an "institutional hybrid" approach to AI definitions, emphasizing the need for flexibility across disciplinary and sector-specific contexts. In public sector organizations, AI assimilation refers to the extent to which AI technologies become embedded in decision-making, service delivery, and administrative operations (Purvis et al., 2001; Fosso Wamba, 2022). This assimilation is complexed, nuanced, and context dependant as it requires overcoming technical, organizational, and regulatory challenges while aligning with institutional objectives.

Global efforts to integrate AI in public governance are growing. In the EU, initiatives such as Horizon Europe and the Digital Europe Programme reflect significant investment in public sector AI, with €8.2 billion allocated for AI-related R&D between 2021 and 2027 (European Commission, 2020). Several studies have examined public sector AI assimilation in Western contexts such as Denmark, Germany, and the Netherlands focusing on institutional capacity, governance models, and citizen-facing services (Sun & Medaglia, 2019; Wirtz et al., 2019; Zuiderwijk et al., 2021). However, this growing body of work remains heavily concentrated in European and North American settings.

By contrast, the public sector in Saudi Arabia remains underexplored in this discourse, despite significant national investment in AI and an explicit policy commitment through Vision 2030[1]. SDAIA[2] plays a leading role in deploying AI across government functions, including real-time analytics, biometric verification, and GenAI applications. Yet, the academic literature has paid limited attention to how AI is actually being integrated into public sector work processes, and particularly how organizational attention is directed toward or away from AI priorities within these institutional contexts. Previous studies of Saudi Arabia public sector reforms, especially in e-government, have found issues including bureaucratic centralization, poor coordination (Al-Fakhri et al., 2008), and gaps in infrastructure, strategy, and process integration (Alghamdi et al., 2011).

This study addresses that gap by examining how leadership practices and communication structures shape AI assimilation in Saudi public sector organizations. Specifically, it investigates how internal hierarchies, communication channels, leadership focus, and external influences impact AI-related decisions and actions. To explore these dynamics, the study draws on the Attention-Based View (ABV) of the firm **(**Ocasio, 1997), a theoretical perspective that explains how organizational outcomes are shaped by what decision-makers notice, prioritize, and act upon. While prior research has used ABV to understand strategic change and organizational adaptation (Ocasio, 1997), its application to AI assimilation in public sector settings remains limited.

ABV is especially relevant in this context because AI integration is not solely a technical or operational challenge it is an attention-driven process. Public sector leaders must navigate competing demands, allocate limited resources, and interpret national agendas, all while managing internal structures that may constrain attention flows (Lindsay, 2023).Thus, ABV provides a useful lens to examine how attention is distributed across internal systems, leadership priorities, and external pressures in shaping AI assimilation. Accordingly, this paper investigates the following research questions (RQs):

- **RQ1:** How do an organization's internal structure and communication channels affect where attention is directed in the context of AI assimilation in public sector organizations?
- **RQ2:** How do leaders and decision-makers allocate their attention concerning AI assimilation within public sector organizations?
- **RQ3:** How does the external environment influence AI assimilation in public sector organizations?

[1] Vision 2030 is Saudi Arabia's strategy to diversify its economy and modernize its public sector https://www.vision2030.gov.sa
[2] Saudi Data and AI Authority

The study is set in Saudi Arabia, where organizational behaviour is shaped by formal communication systems, hierarchical roles, and a leadership-centred culture (Abu Alsuood & Youde, 2018; Saad & Abbas, 2018). These features, coupled with policy drivers like Vision 2030, provide a distinctive setting to examine AI assimilation through the ABV lens. The paper proceeds as follows: first, it reviews relevant literature and introduces the theoretical framework; next, it outlines the methodology; it then presents findings, discusses theoretical and practical implications, and concludes with directions for future research.

2. Background

2.1. AI in Saudi Arabia

As part of its national transformation agenda, Saudi Arabia has positioned AI as a key pillar for advancing public sector performance and achieving long-term economic diversification. To actualize this strategy, SDAIA leads the critical initiatives, including hosting the Global AI Summit[3], deploying AI-powered chatbots and GenAI applications within government entities, and integrating biometric verification systems to bolster security and streamline services. Moreover, Saudi Arabia employs real-time analytics, providing policymakers with valuable insights for informed decision-making, policy design, and dynamic scenario planning. This strategic commitment is further exemplified through the establishment of SDAIA and the implementation of the National Strategy for Data and AI. Coupled with the Kingdom's distinct socio-economic and organizational dynamics, these developments offer a compelling context to explore AI assimilation within public sector organizations.

2.2. Attention-based View Theory

The ABV of the organization serves as the theoretical framework for examining the assimilation of AI within public sector organizations in Saudi Arabia. Through the lens of ABV, organizations consist of groups that interpret environmental issues and identify potential actions. The specific routines and procedures available to decision-makers are shaped by the organizational context (Ocasio, 1997; Ocasio & Joseph, 2005; Ocasio, 2011). ABV Theory describes how organised attention impacts outcomes and is still used to study topics like strategic renewal and digital transformation (Bueno et al., 2024). ABV uniquely uses 'attention' to involve decision-makers in identifying, recording, interpreting, and prioritising both problems and solutions (Ocasio, 1997). Attention functions as a strategic resource that guides decision-making, prioritizes issues, and directs resource use. Communication channels influence these processes by framing and distributing information (Ocasio et al., 2018). ABV is based on three core principles (i) focus of attention, (ii) situated attention, and (iii) structural distribution of attention which emphasize the role of internal structures in guiding attention flows (Zhang & Ma, 2022). A description of each principle and its relevance to this study is listed in Table 1.

Principle	Description (Ocasio, 1997, p. 1)	Relevance in this study
Focus of attention	What decision-makers do depend on what issues and answers they focus their attention on?	Examining the relationship between organizational attention and AI assimilation.
Situated attention	What issues and answers decision-makers focus on and what they do,	In situated attention, the decision to address emerging challenges and obstacles may be

[3] The Global AI Summit is Saudi Arabia's flagship event, bringing together global leaders to discuss and shape the future of AI in service of humanity.

	depends on the context or situation they find themselves in.	initiated internally by an organization's leadership. For instance, issues such as misalignment between AI decision-making and management decision-making, administrative integration, ambiguity, and awareness regarding AI can arise. Managers encountering these circumstances can resolve them within the organization.
Structural distribution of attention	What context or situation decision-makers find themselves in, and how they attend to it, depends on how the organization's rules, resources, and social relationships regulate and control the distribution and allocation of issues, answers, and decision-makers into specific activities, communications, and procedures.	Government entities recognise that addressing structural challenges requires coordinated action among multiple stakeholders. For example, issues related to data policy and legislation are best resolved through collaborative decision-making with other government agencies. In the context of AI adoption, written procedures or recommendations for system governance may involve input from diverse parties.

Table 1. Principles of ABV

Leadership plays a central role in this process. Leaders influence what gains attention, how strategic priorities are set, and how organizational focus aligns with broader frameworks such as Vision 2030 (Alshahrani et al., 2021). Through formal and informal communication, they shape how attention is allocated across AI initiatives (Janssen et al., 2020). The following sections examine the literature using the ABV lens to understand how communication, structure, and leadership attention influence AI assimilation in the public sector.

Communication channels are instrumental in guiding organizational attention, playing a decisive role in shaping how information is prioritized and managed within the organization (Ocasio, 1997). These channels encompass formal, informal, and emergent types, each contributing uniquely to organizational effectiveness and adaptability (Mergel, Edelmann and Haug, 2019). Specifically, formal channels provide structured, goal-oriented communication; informal channels offer flexible, spontaneous dialogue fostering innovation; and emergent channels adapt dynamically to changing organizational needs. In the context of AI integration, these communication flows are critical for aligning attention with strategic initiatives and rapidly evolving technological landscapes (Janssen et al., 2020).

The internal structure of an organization including roles, rules, hierarchies, and decision-making protocols plays a critical role in directing attention and shaping how resources are allocated (Ocasio, Laamanen, & Vaara, 2018). These structural elements govern how information flows and who holds the authority to act, thereby influencing strategic priorities. In the context of Saudi Arabia, the growing emphasis on AI assimilation has led to the establishment of new roles dedicated to managing AI initiatives. These emerging positions reflect the adaptive nature of organizational structures, helping redirect leadership attention to complex technological challenges and ensuring appropriate oversight (Alshahrani, Dennehy, & Mäntymäki, 2021). Such structural developments work in tandem with communication channels to guide attention and support the successful integration of AI within public sector organizations (Janssen, van der Voort, & Wahyudi, 2020).

Leaders and their role hold a central position within ABV theory, strategically allocating attention to prioritize organizational initiatives (Ocasio, 1997). By shaping communication

channels and decision-making frameworks, they align attention with both strategic objectives and external demands (Ocasio, 2011; Elliott et al., 2025). In the context of AI, this attentional role becomes critical, as leaders must navigate complex technologies and ensure alignment with institutional goals. They also rely on data-driven insights to balance operational needs with long-term strategies while maintaining transparency and public trust (Haesevoets et al., 2024).

2.3. Research Gap

Several studies have examined the role of leadership in AI assimilation within the public sector. For instance, research has explored leadership strategies in this area, focusing mainly on organizational and structural challenges (Mergel, Edelmann, and Haug, 2019; Wirtz, Weyerer, and Geyer, 2019). Similarly, others have examined how public organizations manage AI assimilation by either separating or integrating AI teams, emphasizing the complexities of aligning AI with core processes (Selten and Klievink, 2024). Government leaders' readiness to assimilate AI also depends on their technical expertise and infrastructure capabilities (West, 2018; Longo, 2024). However, the specific impact of formal and informal communication on leadership decisions, and the mechanisms through which leaders allocate attention to competing priorities in AI initiatives, remain underexamined, particularly in a non-Western context like Saudi Arabia. While existing literature emphasizes structural and technical challenges, it largely overlooks the communication dynamics that shape decision-making. This gap is significant in the Saudi context, where leadership is influenced by unique cultural and organizational factors.

By simply removing the one reference and making small wording changes, you can effectively reduce your word count while preserving the strength and clarity of your research gap. In sum, while prior research has explored leadership and decision-making in public sector AI assimilation, a dual gap remains: the limited application of the ABV and the underexplored Saudi context. This study addresses both by using ABV to examine how Saudi public sector leaders manage communication and direct attention to AI initiatives, offering a novel contribution to the literature.

3. Methodology

This study employs a case study approach (Yin, 2018) to investigate AI assimilation and leadership practices in three Saudi public sector organizations: education, banking, and general public services (see Section 3.1). This method is well-suited to analyse contextual factors shaping leadership decisions, especially in underexplored areas (Eisenhardt and Graebner, 2007). Given the complexity of AI assimilation at the intersection of technology, human judgment, and organizational context, it enables a nuanced exploration of how leaders allocate attention, manage resources, and address challenges (Patton, 2015), contributing theoretical and practical insights on attention-based leadership.

Empirical data were collected through 10 semi-structured interviews (15 hours, 7 minutes), with leaders/managers in these three organizations, complemented by 2 hours of follow-up interviews. To ensure triangulation (see Section 3.2), additional sources included internal communications (emails, WhatsApp), platform screenshots, newsletters, organizational documents, websites, analytics reports, and government records. The first author also conducted observations between July 2024 and February 2025, enriching the analysis.

3.1. Description of Case Studies

This research uses the OECD's[4] Classification of the Functions of Government (COFOG) framework to categorize case studies by government function, enabling analysis of AI assimilation across sectors.

Case Study 1, F1: General Public Service (GEN): focuses on a Saudi government entity leading national AI and data strategies in line with Vision 2030. GEN oversees projects on big data governance, AI innovation, and digital transformation. GEN deploys its AI products through web portals, mobile apps, and real-time assimilation dashboards. Its core AI products include:

- *GuideGenAIt*, an Arabic-language GenAI chatbot providing real-time summaries and recommendations to citizens
- *SecurePass*, a biometric verification system for secure access to e-government services;
- *InsightHub*, a big data analytics platform for policy simulation.

Case Study 2, F9: Education (UNI): examines a major Saudi university offering diverse academic programs and strong industry links. The university has developed a chatbot that operates mainly through WhatsApp and Telegram, enhancing student engagement and academic support. In detail:

- *UniBot*, an AI-enabled chatbot supporting postgraduate students' learning and cognitive strategies.

Case Study 3, F4: Economic Affairs (BNK): explores one of Saudi Arabia's largest banks, which provides retail and SME banking services. BNK employs multiple AI tools which are delivered via mobile apps, websites, and messaging platforms:

- *Fraud detection* systems using machine learning;
- *Chatbots*: for customer service
- *Robotic Process Automation (RPA):* integrated with SIMAH[5] credit bureau data to improve operational efficiency.

Together, these cases illustrate how GenAI and other AI systems are transforming public service delivery, education, and financial services, supporting national priorities and improving operational effectiveness.

3.2. Data collection

Data were collected from multiple sources, including interview transcripts, observations, emails, WhatsApp chats, Twasel[6], organizational newsletters, public and private websites,

[4] COFOG is an OECD framework used to categorize government activities by function for comparative analysis https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Classification_of_the_functions_of_government_(COFOG)

[5] SIMAH is Saudi Arabia's credit bureau, overseen by the Saudi Central Bank, providing financial data for decision-making and risk management.

[6] Twaseel is a government platform for internal communication and official correspondence in Saudi Arabia.

analytics platforms, organizational charts, and official Saudi government documents (see Table 2). To uphold research ethics, interviewees provided informed consent, were briefed on the study's purpose, and were assured of their right to withdraw. Digital communications (e.g., WhatsApp, emails) were included only with explicit consent or when publicly available. All transcripts and documents were anonymized, and data were securely stored in encrypted formats accessible solely to authorized researchers. Coding and analysis were conducted without linking responses to individuals or organizations, ensuring interviewee confidentiality.

Interviewees held diverse leadership and decision-making roles (see Table 2). GEN interviewees had under five years in their current roles (as GEN is a newly-established organization), but brought 8-16 years of cross-sector experience; EDU interviewees worked primarily in academic and research roles, while BNK interviewees held technical and managerial positions.

Case Study	**Interviewee Code**	**Interviewee Job Title**	**Years in Org.**	**Total Years Exp.**	**Interview Duration**	**Additional Data**
GEN	GEN1	Senior Data Scientist	5	15	1h 25m + follow-up 40m	WhatsApp chats; newsletters; acess to GuideGenAI chatbot; SecurePass stats
GEN	GEN2	AI Advisor	3.5	11.5	1h 5m	
GEN	GEN3	Data Engineer	4	13	1h 15m	
GEN	GEN4	Section Manager, System Monitoring	4	20	1h 20m	
EDU	EDU1	Professor, NLP	7	7	1h 30m	Emails '*CommFlow*,' 'E-Correspond' (educational sector platforms) Twasel
EDU	EDU2	Director, AI Research Centre	10	10	1h 10m	
EDU	EDU3	Director, Computer Science Dept	15	15	1h 25m + follow-up 1h 20m	
EDU	EDU4	Lecturer, E-Learning and IT Dept	6	6	1h 12m	
BNK	BNK1	Chief Technology Officer (CTO)	12	16	1h 18m	Confidentiality limited details: observations enriched findings
BNK	BNK2	Director, IT Audit	14	17	1h 27m	

Table 2. Interviews and additional data collection

3.3. Data Analysis

The data analysis in this study systematically addressed the research questions, examining how internal and external factors influence AI assimilation in public sector organizations. The datasets were analysed through the lens of ABV theory (Ocasio, 1997), situated within the Saudi public sector context. A structured coding and thematic development approach (Braun & Clarke, 2006; Creswell & Poth, 2016) was used to identify patterns and group responses into themes linked to AI assimilation and leadership. Particular attention was given to the role of communication channels in shaping these processes (Gale, et al., 2013). The analysis proceeded in two phases (see Figure 1). In Phase 1, initial codes were generated to capture elements such as priority setting, attention structure, hierarchy, roles, resources, and communication practices. In Phase 2, these were developed into broader themes linked to the research questions. The colour coding in Figure 1 illustrates this process.

For RQ1, themes on internal structure and communication revealed how hierarchies, role clarity, and resource allocation influence attention allocation, with formal and informal communication channels supporting internal coordination and information flow. Collaborative platforms were found to enable both intra-organizational communication and external engagement. For RQ2, leadership attention and decision-making focused on how leaders directed attention to AI efforts, balancing internal priorities with national agendas such as Vision 2030. Communication structures and performance mechanisms played key roles in this process. For RQ3, external influences such as government policies, Vision 2030, technological advancements, and inter-organizational collaboration were found to shape organizational readiness for AI assimilation. These findings respond to recent calls in the literature to better understand how contextual forces affect AI integration beyond internal capabilities (Wirtz et al., 2019), particularly in non-Western, policy-driven environments like Saudi Arabia where such dynamics remain underexplored.

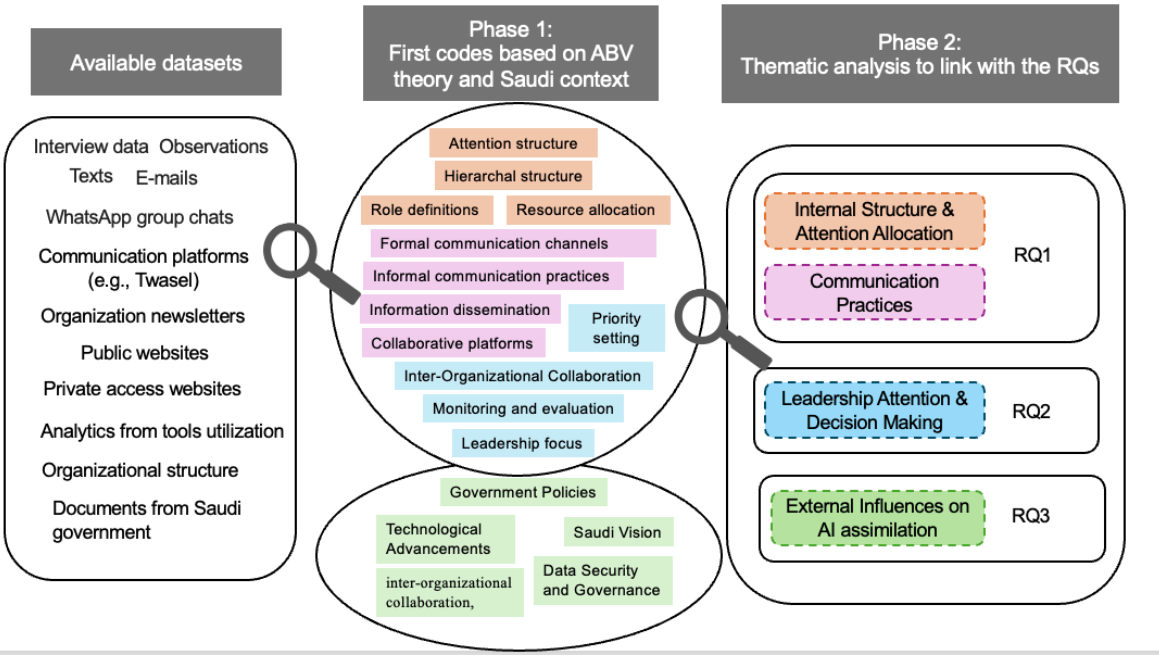


Figure 1. Stages of the codes and themes analysis process

4. Findings

Our analysis identified recurring themes linked to specific codes that show interviewees' experiences and perceptions of AI assimilation. Rather than presenting cases sequentially, we drew on quotes across the three cases to strengthen each theme, ensuring thematic coherence over case order. To enhance transparency, direct interviewee quotes are included, offering richer insights into their perspectives (Miles et al., 2014; Nowell et al., 2017).

4.1. Internal Structure and Attention Allocation

Regarding the first theme related to RQ1 (internal structure and attention allocation), the findings show how leadership and resources are directed toward specific internal goals. Structured strategies, such as training and bootcamps, aim to enhance awareness and

capacity: *"Our strategic plan includes raising awareness of AI's importance across life, work, and government through training, bootcamps, and other initiatives"* (GEN1).

Internal structures and hierarchies are reportingly changing, as staff is trained on AI new roles and new departments are created. *"Our university is collaborating with GEN in training and human resource development in data and AI"* (EDU3). Hierarchical structures and specialized roles (e.g., data offices and AI managers) are created to enable focused attention on how to assimilate AI in their organizations: *"After Saudi Arabia topped global AI adoption and ranked second in AI awareness, 2,500 national specialists were trained for data offices"* (GEN1). These structures support organizational objectives and career development. New roles have been created to manage AI systems and data analytics. *"I was a computer technician before this organization invested in my education, and now I work as a Machine Learning Engineer"* (GEN3). In education, GenAI is considered as an "assistant" to the educators (EDU2), as their roles are evolving and some tedious or admin work is handled by GenAI: *"Now, with this smart GenAI tool, I believe our role as university teaching staff is shifting, as we are having more time to guiding student"* (EDU1).

Organizational attention and resource allocation are increasingly directed toward strengthening internal resilience, with a notable focus on security, risk management, and developmental infrastructure. These shifts do not emerge in isolation; they are socially constructed through internal routines, perceived vulnerabilities, and institutional priorities, aligning with the logic of attention allocation articulated in ABV theory. As AI becomes embedded in core operations, attention is redirected toward safeguarding institutional trust and operational continuity. As one leader in the financial sector explained: *"We've developed AI-powered tools not only to detect fraud, but to protect the internal ecosystem, it's about securing the organization from within"* (BNK1). This internal focus is reinforced by structured national-level investments, reflecting Saudi Arabia's commitment to long-term AI capability. "*Budgeting for AI is no longer experimental. It's structured and aligned with long-term national priorities"* (GEN2). In the education sector, attention and funding have been steered toward AI-driven platforms designed to enhance learning outcomes and institutional effectiveness: *"AI is central to our vision. We've prioritized funding for tools that help students learn more independently and adaptively"* (EDU1).

4.2. Communication Practices and Attention

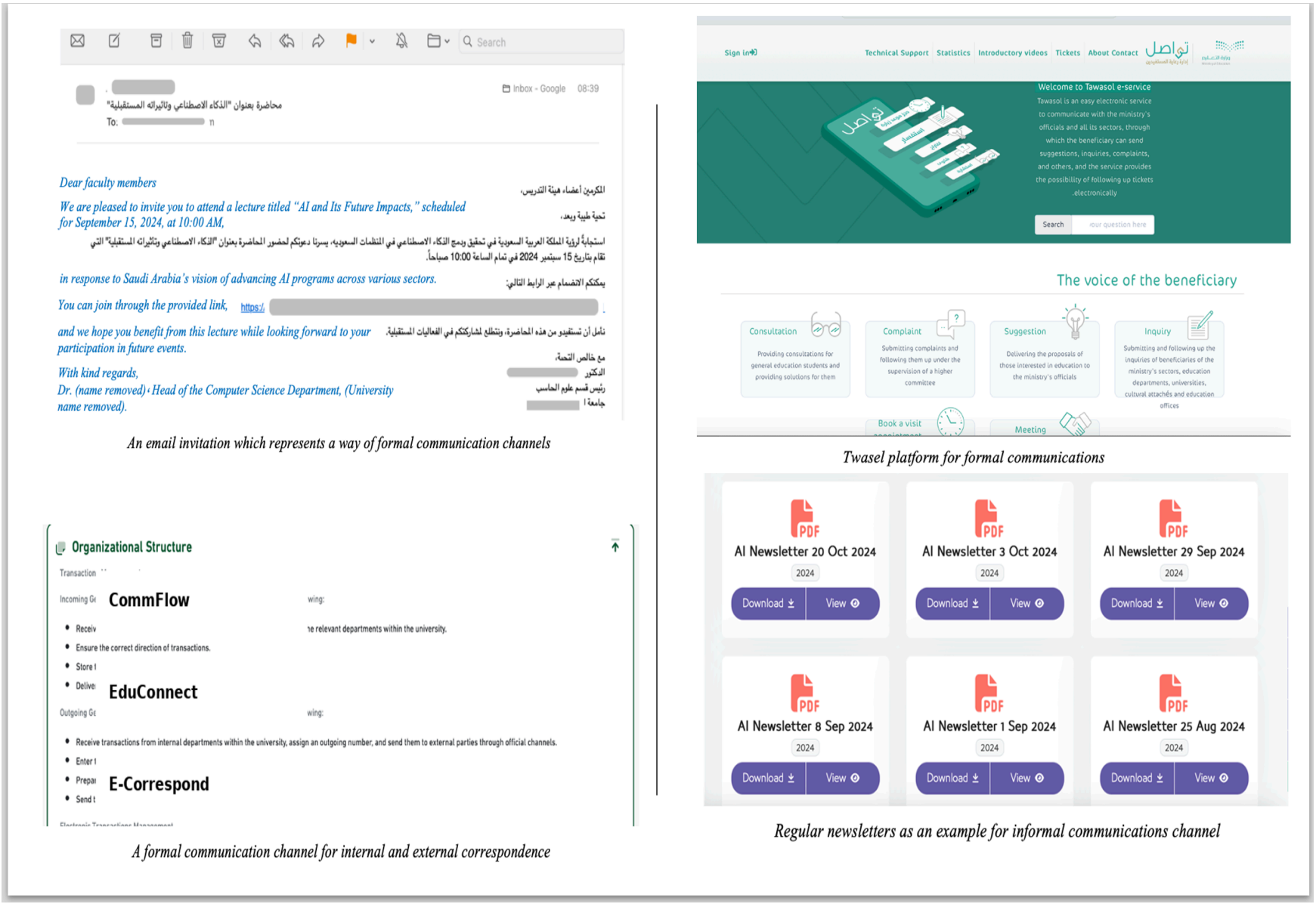
Continuing with RQ1 and RQ3, the findings emphasize the role of communication practices in facilitating AI assimilation by shaping organizational attention and decision-making. Both formal and informal mechanisms whether internal (within departments and leadership structures) or external (with other government entities, partners, or the public) serve as critical channels for advancing AI initiatives, aligning them with national strategies, and engaging stakeholders across multiple levels.

Structured meetings and regular reporting help focus organizational attention on AI priorities: *"I organize workshops every three weeks, bringing in professionals from outside our organization"* (GEN1). Such initiatives raise AI awareness and align organizational goals with national digital transformation efforts: *"We focus on our role in responding to the vision of achieving digital transformation, especially within our organization"* (GEN2). Figure 2 shows an example of a structured email invitation promoting AI workshops and training sessions, underscoring the role of internal communication in building AI awareness.

Formal communication tools such as emails facilitate internal engagement and external awareness: *"Emails are essential for connecting with staff and students to promote AI assimilation and encourage participation in seminars"* (GEN2). Additionally, other formal ways such as newsletters serve as a key tool for disseminating AI-related developments: "*The newsletter is essential for keeping both internal and external stakeholders informed about our AI-related initiatives*" (GEN3). Figure 2 illustrates an example of an AI-focused newsletter distributed within the organization, emphasizing how targeted communication reinforces AI assimilation efforts.

Beyond formal traditional channels, organizations are leveraging AI-driven communication tools to enhance internal interactions and support services. In the education sector, AI chatbots are becoming instrumental in facilitating student engagement: *"EduBot has positively impacted students' motivation and learning strategies in higher education"*(EDU2). This chatbot serves as an internal communication and support tool, responding to queries and offering personalized guidance: *"EduBot has transformed how students access resources, making information more accessible and boosting motivation through personalized support"* (EDU1).

The organization's communication infrastructure relies on a range of platforms and tools to ensure seamless correspondence. Platforms such as '*CommFlow,*' '*EduConnect*,' and '*E-Correspond*' serve as foundational systems for managing workflows and interactions (Figure 2):*"CommFlow handles internal transactions, ensuring correspondence is structured, organised, and accessible through a dedicated log system"* (EDU3). A more formal communication channel, 'Twasel' provides an interactive platform for external stakeholders: "Twasel ensures easy access for beneficiaries to submit suggestions, inquiries, and complaints, as well as track their tickets electronically" (EDU4). Figure 2 demonstrates how Twasel is utilized to facilitate transparent and structured communication, highlighting its role in managing AI-related inquiries and service enhancements.



An email invitation which represents a way of formal communication channels

Twasel platform for formal communications

A formal communication channel for internal and external correspondence

Regular newsletters as an example for informal communications channel

Figure 2. Tools Supporting AI Assimilation

Informal communication channels also play a vital role in keeping stakeholders consistently informed and engaged (Figure 3). Real-time exchanges through platforms such as WhatsApp allow for immediate and ongoing dialogue. As one interviewee described, "*Our internal chats document ongoing conversations, like those about attending the AI summit, which brings together global experts, academics, and policymakers to share insights and developments*" (GEN1). Another interviewee emphasized the importance of these informal exchanges, noting that "*Sometimes, what's shared in these chats gives us a clearer picture than official meetings especially when quick coordination or clarification is needed*" (GEN2). The findings highlight the role of collaborative platforms in enhancing cross-departmental coordination and innovation. Also other tools, like Microsoft Teams enable informal real-time collaboration: *"We rely on digital tools like Teams and shared dashboards to brainstorm ideas and track AI projects in real time"* (GEN3).

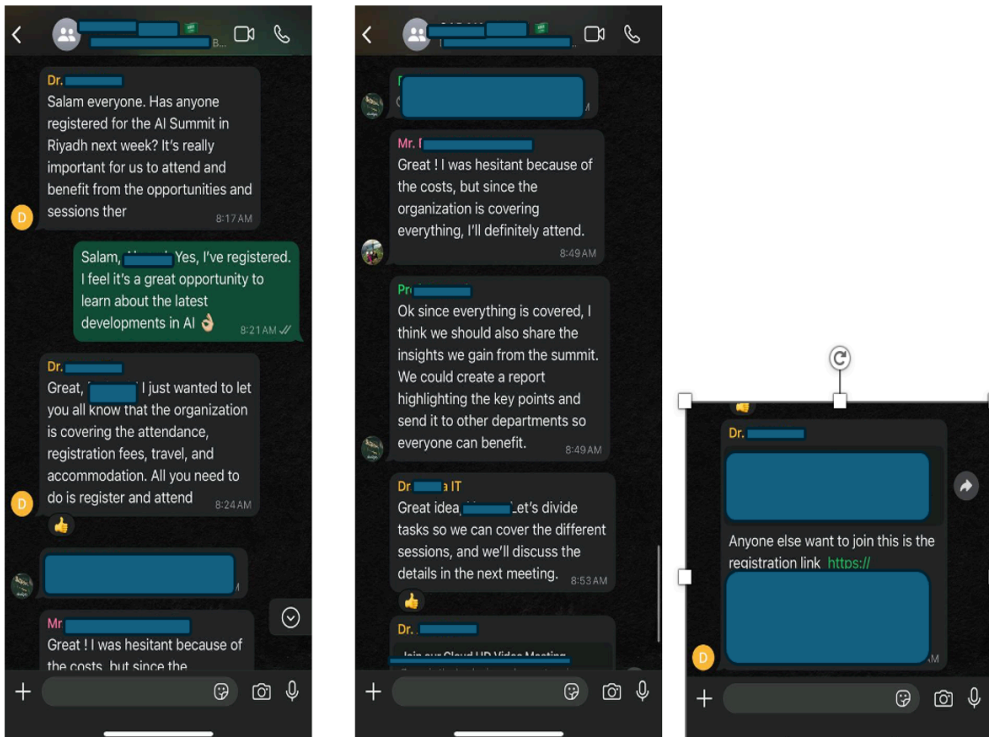


Figure 3. Example of informal communications through WhatsApp app

It is reported that the organizations have clearly understood that tailoring communication strategies to specific audiences enhances the effectiveness of information dissemination: "*Communication is customized according to the knowledge level and different needs of internal audiences. For example, technical details are provided to technical teams, while executive summaries are offered to senior management"* (BNK1). Informal initiatives such as Eduthon a hackathon promoting AI innovation also draw attention and engagement: *"Eduthon encourages students and faculty members to develop innovative AI solutions for educational challenges"* (EDU1). Closing, both formal and informal communication channels serve as conduits for AI assimilation, facilitating knowledge dissemination, stakeholder engagement, and alignment with national initiatives.

4.3. Leadership Attention and Decision-Making

For RQ2, the findings highlight that leadership attention functions as a strategic driver of AI assimilation, as the focus areas prioritized by leaders directly shape institutional actions and decision-making**.** In Saudi public sector organizations, leaders actively steer attention toward AI efforts that align with Vision 2030. This reflects a critical but often overlooked dimension in existing literature, which rarely examines how leaders in non-Western public sectors prioritize and mobilize AI. *"My approach starts with figuring out how Unibot can make us more efficient and drive innovation for students and faculty members"* (EDU2). By treating attention as a deliberate act, leaders position AI not as a technical add-on, but as a lever for strategic transformation.

Aligning AI initiatives with Vision 2030 is a key focus of leadership attention. Rather than treating AI as a technical add-on, leaders are channelling efforts toward initiatives that support national goals. As one interviewee shared: *"As leaders, our top priority is achieving Vision 2030. AI is how we modernize services; one example is our collaboration with the Ministry of Health on AI-enabled early breast cancer detection"* (GEN1).

To sustain progress, leaders invest in developing institutional AI expertise through training and partnerships: *"Two hundred government leaders were trained in cloud governance. Recently, they launched the Generative AI Academy with NVIDIA to qualify 4,000 experts by 2026"* (GEN2). Data-driven tools like InsightHub support informed policymaking: *"It's not just about collecting data; it's about understanding what it tells us, especially with Vision 2030 in mind"*(GEN4).

Leaders also structure their time to prioritize AI, integrating it into daily governance tasks, project monitoring, and stakeholder engagement: *"I'm actively involved in the assimilation of AI into our organization to align with Vision 2030 and our strategic goals"* (BNK2). Figure 4 illustrates how AI remains central in leaders' calendars, ensuring alignment between organizational and national objectives.

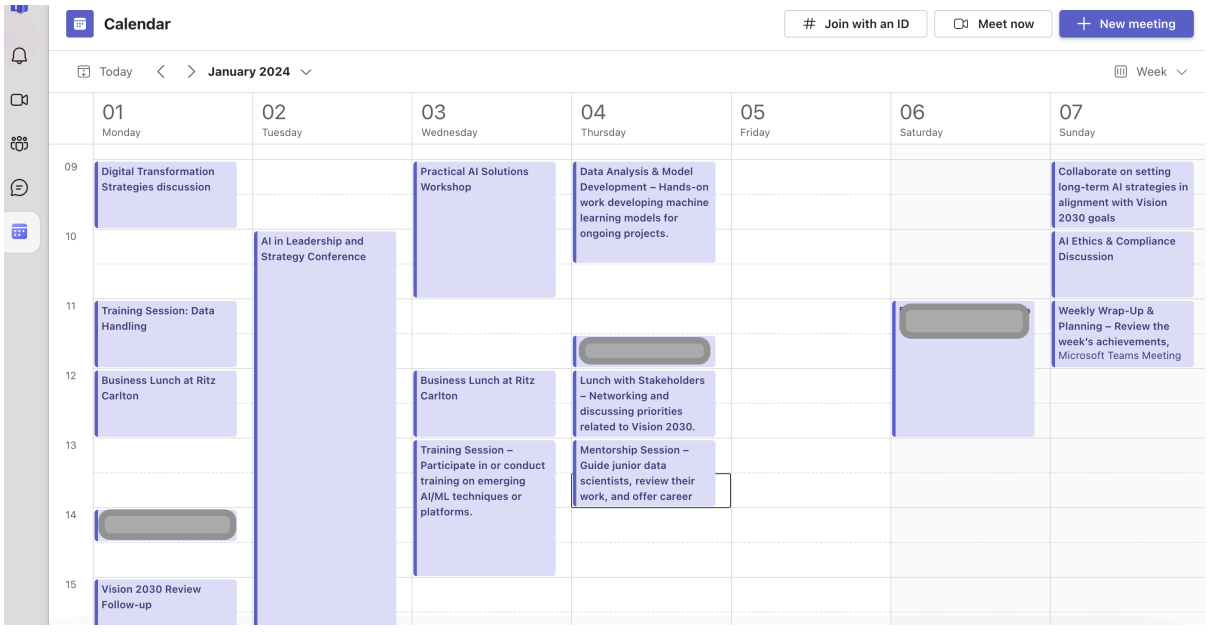


Figure 4. Leadership Time Allocation for AI Initiatives

4.4. External Influences on AI Assimilation

The assimilation of AI in Saudi public sector organizations is shaped by external factors, including AI governance, government policies, inter-organizational collaboration, technological advancements, and data security frameworks. These influences guide implementation strategies, organizational priorities, and alignment with national agendas.

AI governance comprising national policies, regulatory guidelines, and ethical frameworks plays a central role. Though operationalized internally, it is externally driven by national standards. One interviewee noted: *"At our university, we have a Data Management Office that aims to improve data management by applying data governance regulations and procedures"* (EDU1). Bodies such as SDAIA issue key guidelines on ethical AI use, data security, and compliance, which organizations follow to align with national frameworks. Government policies, particularly Vision 2030, form the foundation of digital transformation and sector modernization. As one interviewee noted: *"We are working hard for two reasons: first, to realize Vision 2030 of Saudi Arabia, and second, we believe AI technology would enhance the education sector and reduce the workload on educators"* (EDU1).

Inter-organizational collaboration is another key external driver. Partnerships with SDAIA, international bodies, and private firms promote knowledge exchange, technical support, and capacity-building. As one interviewee observed: *"We're on board at the university, developing skills and pushing for cooperation with external organizations to support this vision"* (EDU1). Another added: *"We are communicating with other organizations such as GEN to share knowledge and organize trainings"* (EDU2). These cross-sector interactions serve not only administrative coordination but also direct organizational attention toward external priorities and shared agendas. Formal agreements like Memorandums of Understanding (MoUs) ensure structured cooperation and policy alignment: *"GEN and our university have signed a Memorandum of Understanding to enhance cooperation in data and AI and benefit from smart, secure digital products"* (EDU2).

The localization of AI particularly GenAI and chatbots illustrates how global technologies are adapted to national needs. *GuideGenAI*, a chatbot developed in both Arabic (Saudi dialect) and English, exemplifies this. As one interviewee noted: *"GuideBot represents a significant step toward advancing Arabic language AI, with potential applications in sectors like education, healthcare, and customer service"* (GEN1).

Data security frameworks also act as external pressures shaping AI use. Public organizations must comply with national data protection laws, AI governance requirements, and global standards. The Global AI Summit in Saudi Arabia reinforced these imperatives: *"The AI Summit underscored the need for AI governance to address cybersecurity risks, align with international best practices, and ensure responsible AI assimilation in national policies"* (GEN3).

Financial institutions exemplify AI-driven compliance: AI-powered fraud detection allows real-time monitoring, while tools like *SecurePass* enhance banking security (BNK1). As another interviewee explained: *"At our university, we have a Data Management Office... working with external governmental entities like the National Data Management Office under the supervision of GEN"* (EDU1). These examples show how external regulatory, policy, and security frameworks shape AI integration, ensuring alignment with national and international obligations.

5. Discussion

Leadership attention in AI assimilation is shaped by internal structures, communication channels, and external influences. In the Saudi case studies, structured attention ensures AI initiatives align with national goals such as Vision 2030. Hierarchical decision-making, defined roles, and resource allocation guide leadership focus and embed AI in governance. Communication channels reinforce this through formal mechanisms like strategic meetings, reports, and digital platforms, while informal tools such as WhatsApp, Teams chat, and collaborative platforms support agile engagement. Structured information flows further sustain strategic alignment.

Internal structures and formal AI strategies help direct attention. Public organizations establish roles, decision protocols, and investments that embed AI in governance and align with national priorities. Figure 5 illustrates how leadership attention, communication, and external influences interact in shaping AI assimilation. At the centre are assimilation outcomes such as improved operational efficiency, enhanced data-driven decision-making, and the integration of GenAI tools into public services, which emerge when these elements work cohesively. The diagram highlights their interdependencies, forming a coordinated pathway for AI assimilation, supported by policies, procedures, and institutional frameworks. AI technologies are changing how attention is distributed in public organizations, moving beyond hierarchical roles and formal priorities. Tools like GenAI use algorithms to redirect focus, alter decision dynamics, and challenge traditional lines of authority. This shift highlights evolving power structures, new decision bottlenecks, and blurred boundaries between formal and informal governance, expanding ABV theory in AI-integrated contexts.

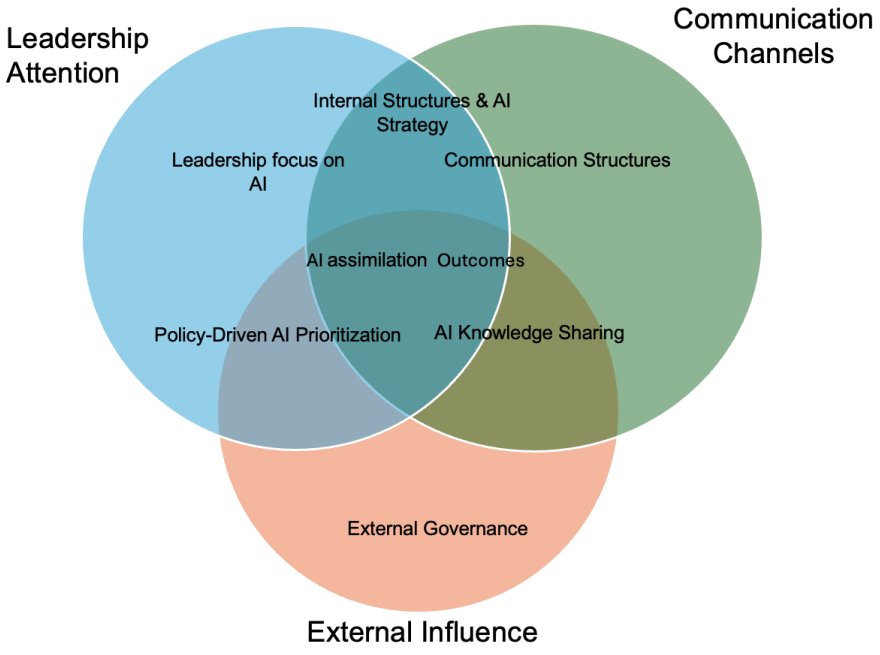


Figure 5. Mechanisms shaping AI assimilation in Saudi public sector organizations.

Leadership attention is reinforced through both formal and informal communication channels. Structured mechanisms, such as strategic meetings, official reports, and digital platforms, help maintain AI visibility at different levels of an organization. At the same time, informal discussions, including WhatsApp chats and digital collaboration tools, allow for quicker

decision-making and knowledge exchange, making AI assimilation more adaptable. These structured communication mechanisms are vital in ensuring AI governance, where AI task forces, reporting frameworks, and centralized dashboards facilitate real-time monitoring and assessment of AI initiatives.

External influences, such as government policies, national strategies, and inter-organizational collaboration, play a key role in shaping leadership attention. These directives require leaders to align AI initiatives with national goals and navigate policy and compliance frameworks. This is especially important with GenAI, where localization ensures outputs reflect national values and cultural norms. For example, GuideBot, a Saudi GenAI system, was trained on curated local data to ensure alignment with social expectations and institutional priorities.

At the core of this interaction is policy-driven AI prioritization, were national policies and strategic mandates direct leadership attention toward AI investments. Saudi Arabia's AI strategy is heavily influenced by policy-driven initiatives, ensuring that AI development aligns with national transformation goals, workforce capacity-building, and digital economy expansion. Communication channels play a critical role in translating these policies into actionable strategies, ensuring institutional compliance and adaptability.

A crucial but often underexplored element in AI assimilation is AI knowledge sharing. Public sector organizations rely on knowledge-sharing networks, inter-organizational collaborations, and training initiatives to develop AI capabilities. Collaborative platforms, industry partnerships, and AI-specific training programs facilitate the transfer of expertise, ensuring that AI skills are distributed across different levels of government. This exchange of knowledge enhances decision-making processes and accelerates AI-driven innovations within the public sector.

With AI playing a central role in Saudi Arabia's Vision 2030 agenda, public sector organizations are leveraging these technologies to modernize governance, enhance service delivery, and support economic transformation. Leadership attention and structured communication channels will continue to be key enablers of sustainable progress, ensuring that AI assimilation contributes to the country's long-term development goals.

6.2 Theoretical Contributions

This study contributes to the literature on AI assimilation in the public sector by examining how leadership attention, communication mechanisms, and governance structures shape AI initiatives. While prior research has addressed technological, regulatory, and policy aspects (Wirtz et al., 2019; Janssen et al., 2020), less attention has been paid to the cognitive and organizational dynamics that underpin AI integration particularly in non-Western public contexts. This study addresses that gap through four key contributions.

First, it applies ABV theory (Ocasio, 1997) to show how leadership attention informs AI decision-making in public organizations. Leadership attention operates through prioritization mechanisms like national strategies and governance hierarchies (Csaszar & Laureiro-Martínez, 2022). Leaders act within institutional constraints, extending ABV into the public sector and contextualizing it for AI assimilation in Global South settings (Janssen & van den Berg, 2022). This contributes theoretically by adapting ABV to explain how public sector leaders structure and operationalize attention in AI contexts.

Second, the study highlights the role of communication mechanisms in AI assimilation. Formal channels such as reporting systems and strategic directives, along with informal tools like inter-agency messaging and collaboration, influence how attention is distributed, and implementation is coordinated. Prior literature has largely overlooked communication's structuring function (Wirtz, Weyerer, & Geyer, 2022). This study shows that AI integration is not only a technological or policy issue but also a communicative process embedded in organizational routines.

Third, it expands the notion of AI governance beyond ethical oversight to include operational practices. In the Saudi public sector, governance emerges through data protocols, performance monitoring, and inter-agency coordination. These mechanisms shape leadership attention and institutional focus. This contribution reframes AI governance as a practice that supports strategic alignment and not just regulatory compliance (Aguinis et al., 2024). It also recognizes the unique governance demands of emerging technologies such as GenAI, where leaders must attend to localization, data ethics, and content control.

Fourth, the paper presents a conceptual framework that maps the interaction between leadership attention, communication, and governance. This offers a structured theoretical lens for understanding how public organizations assimilate AI and provides a basis for comparative work across other contexts.

6.3 Practical Implications for Public Sector Organizations

The findings highlight several practical steps for public sector AI assimilation. Strengthening communication channels is essential to keep AI priorities visible across levels. Developing AI-specific reporting systems and digital platforms can improve coordination, decision-making, and monitoring. Leadership development is equally important; investing in AI-focused leadership training equips decision-makers to align strategies with institutional goals.

Inter-organizational collaboration with academia, the private sector, and international bodies creates knowledge exchange and best practices, keeping organizations informed of emerging innovations. These collaborations also help direct leadership attention to evolving priorities through shared training, joint projects, and policy alignment. Embedding AI analytics into policymaking enhances evidence-based governance and service efficiency. Finally, ethical and secure AI deployment is critical. Ensuring regulatory compliance, data protection, and adherence to governance standards mitigates risks and builds public trust. Transparent, accountable AI policies aligned with global standards will help balance innovation with responsibility.

6.4 Limitations and Future Research

This study focuses on Saudi Arabia's public sector and national initiatives like Vision 2030, which limits generalizability. Future research should assess whether similar attention structures and communication channels apply in other national contexts. As AI technologies evolve, longitudinal research could track shifting organizational priorities. Further studies should quantify the impact of AI-driven communication tools on decision-making and outcomes. Examining employee perceptions and resistance is important, as leadership alone does not determine assimilation success. Future research should also explore how leadership orientations shape strategic planning for AI and compare attention structures across public and

private sectors To guide future research, the following research agenda (see Table 3) outlines key areas that warrant further investigation:

Research Area	Key Questions
Attention-Based View (ABV) and AI in the Public Sector	How can ABV theory be expanded to incorporate AI-driven communication and decision-making tools?
Leadership and AI assimilation	What are the best practices for public sector leaders in directing attention toward AI policies and initiatives?
Communication Channels and AI Assimilation	How do formal and informal communication channels influence AI assimilation across different organizational settings?
Public vs Private Sector AI Assimilation	How does AI assimilation in the public sector differ from the private sector in terms of attention allocation and strategic priorities?
Ethical and Security Challenges in AI Integration	How can public sector organizations balance AI-driven efficiencies with ethical considerations and data security compliance?
Organizational Change and AI Assimilation	How does organizational attention to AI assimilation evolve in response to emerging technologies and shifting policies?

Table 3. Key directions for future research

These research areas highlight critical gaps for future exploration. Comparative studies between the public and private sectors can clarify differences in attention structures and AI strategies. Ethical considerations, including responsible AI deployment, transparency, and data security, remain central. Addressing these areas will deepen understanding of AI assimilation in public organizations.

6. Conclusion

This study uses attention-based view theory to examine AI adoption in Saudi Arabia's public sector organizations. In doing so, it advances research on public sector AI assimilation by applying ABV theory to examine how internal structures, leadership priorities, and external influences shape decision-making. This study indicates that successful AI adoption necessitates evaluating not only technical features, but also the specific application context and the organization's preparedness. Public sector organizations must consistently balance social and technical aspects of AI, as both can positively or negatively affect people inside and outside the organization. The findings emphasize the importance of structured communication, hierarchical leadership, and policy-driven governance in focusing attention on AI priorities. By extending ABV to AI-driven attention and structured decision-making, this study reveals how AI influences decision-making architectures by altering how attention is distributed, how communication is structured, and how leaders prioritize institutional goals. These insights concern power dynamics, the emergence of decision bottlenecks, and the layered nature of digital transformation in public governance. This is particularly relevant as emerging technologies such as GenAI which present new challenges for strategic focus, localization, and oversight. Decision-makers will be essential in guiding organizational focus and to understanding the influence of organizational and national contexts. Future research should build on these insights, particularly through comparative and longitudinal studies, to enrich understanding of AI governance.

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