

Madeeh N. Elgedawy
*Institute of Public Administration
Kingdom of Saudi Arabia*

Agentic AI as the Next Operating Model for Shared Services in Government Organizations: A Conceptual Framework

Abstract

Purpose: This study describes a conceptual framework for a new shared services operating model for organisations. It presents the opportunity to leverage agentic AI technologies. The goal is to introduce the use of autonomous intelligent agents to provide administrative support services across business functions.

Study design/methodology/approach: This study grounded in theory on government shared services, digital transformation, operating models, and agentic artificial intelligence, aims to develop a layered conceptual architecture of the constituent parts of an agentic shared service. Actors (service users), activities (shared service functions), autonomous entities (autonomous agents), processes (digital workflows), resources (enterprise systems), and control mechanisms (governance mechanisms) are identified.

Sample and data: As a conceptual study no primary empirical data were collected.

Results: The developed framework demonstrates how agentic AI may support autonomous coordination of administrative processes in a digital integrated government administration department.

Originality/value: This paper introduces the concept of “agentic shared services” and discusses how agentic artificial intelligence could serve as a next-generation operating model for shared services.

Research limitations/implications: The proposed framework remains preliminary and requires empirical validation. More research is required to confirm the validity of the framework. Future studies may empirically examine the experiences of government agencies that are implementing the pilots of the proposed agentic shared services model.

Keywords: Agentic Artificial Intelligence, Shared Services, Government Organizations, Autonomous Agents, Operating Models.

JEL classification: O33, H83, M15

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الملخص

الذكاء الاصطناعي التوكيلي كنموذج تشغيلي جديد للخدمات المشتركة في الجهات الحكومية: إطار مفاهيمي

مديح ناير الجداوي

معهد الإدارة العامة

المملكة العربية السعودية

هدف الدراسة: تهدف الدراسة إلى تطوير إطار مفاهيمي يوضح دور الذكاء الاصطناعي التوكيلي (Agentic AI) كنموذج تشغيلي متقدم للخدمات المشتركة في الجهات الحكومية، من خلال توظيف الوكلاء الأذكياء المستقلين في تنسيق وتنفيذ الخدمات الإدارية عبر المجالات الوظيفية المختلفة. **تصميم/ منهجية/ طريقة الدراسة:** تعتمد الدراسة على منهجية مفاهيمية تستند إلى تحليل ودمج الأدبيات المتعلقة بالخدمات المشتركة الحكومية، والتحول الرقمي، ونماذج التشغيل المؤسسية، والذكاء الاصطناعي التوكيلي. وتم بناء إطار مفاهيمي متعدد الطبقات يوضح مكونات الخدمات المشتركة التوكيلية والعلاقات بينها، بما يشمل المستخدمين، والوظائف المشتركة، والوكلاء الأذكياء، وسير العمل الرقمي، والأنظمة المؤسسية، وآليات الحوكمة والإشراف البشري.

عينة الدراسة وبياناتها: لا تعتمد الدراسة على بيانات ميدانية مباشرة، وإنما تستند إلى تحليل الأدبيات العلمية والدراسات السابقة ذات العلاقة.

نتائج الدراسة: توصلت الدراسة إلى أن الذكاء الاصطناعي التوكيلي (Agentic AI) يمكن أن يمثل نموذجاً تشغيلياً جديداً يتيح تنسيق الخدمات الإدارية بكفاءة ومرونة أعلى داخل الجهات الحكومية الرقمية. كما يوضح الإطار المقترح آليات التفاعل بين الوكلاء الأذكياء، وسير العمل، والأنظمة المؤسسية، مع الحفاظ على الحوكمة التنظيمية والإشراف البشري.

أصالة الدراسة: تتمثل أصالة الدراسة في تقديم مفهوم الخدمات المشتركة التوكيلية، وطرح الذكاء الاصطناعي التوكيلي بوصفه نموذجاً تشغيلياً تنظيمياً متكاملاً، وليس مجرد أداة تقنية داعمة. ويوفر الإطار المقترح أساساً نظرياً يمكن البناء عليه في الدراسات المستقبلية والتطبيقات العملية في الجهات الحكومية.

حدود الدراسة وتطبيقاتها: تقتصر الدراسة على بناء إطار مفاهيمي لم يُختبر ميدانياً، مما يستدعي إجراء دراسات تطبيقية مستقبلية للتحقق من إمكانية تطبيق الخدمات المشتركة التوكيلية، وتقييم آثارها التنظيمية والتشغيلية في الجهات الحكومية المختلفة.

الكلمات المفتاحية: الذكاء الاصطناعي التوكيلي، الخدمات المشتركة، الجهات الحكومية، الوكلاء الأذكياء، نماذج التشغيل.

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Introduction

Government shared services have become an important operating model for improving the efficiency and integration of administrative support functions in the public sector. In the government sector, several departments have started implementing the shared services model, where administrative support functions such as HR, finance, procurement, and IT are centralized to deliver standardized services more efficiently and cost-effectively. Shared services are closely linked to digital transformation and Enterprise Resource Planning (ERP) systems. Improved process automation and increased interdepartmental service integration have been achieved through enterprise systems, digital platforms, and workflow automation (Richter & Brühl, 2017). However, most digital shared service models still rely on deterministic processes based on predefined business rules and therefore continue to require human intervention. Although digitalization has produced many benefits for shared services in public administration, several barriers remain. A significant portion of public administration still relies on traditional manual practices involving administrative discretion and exception handling (Richter & Brühl, 2017). Contemporary digital shared service models have mainly focused on increasing efficiency and have not yet reached a level of service delivery that is sufficiently flexible or fully automated.

Recent advances in artificial intelligence suggest a potential shift from deterministic process automation toward more autonomous forms of service coordination. These advances in artificial intelligence (AI) research have led to the development of agentic artificial intelligence (Agentic AI), a rapidly evolving paradigm (Acharya et al., 2025; Bandi et al., 2025; Dwivedi et al., 2026; Ren et al., 2025; Zhang et al., 2026). These systems are able to perceive a given environment, act within it and accomplish tasks unlike rule-based automation, intelligent software agents decide on a case-by-case basis and autonomously reach a goal (Acharya et al., 2025; Ren et al., 2025). Furthermore, they manage and coordinate the corresponding service processes on different digital platforms (Hosseini & Seilani, 2025; Murugesan, 2025; Zhang et al., 2026). As a result, a new paradigm of intelligent service operations is emerging, in which software agents can manage service-related tasks with reduced human intervention. Agentic AI is therefore expected to play a central role in next-generation operating models for data-driven organizations (Dwivedi et al., 2026; Murugesan, 2025). In government shared services, this shift is particularly important because service de-

livery requires continuous coordination across functions, workflows, enterprise systems, and governance mechanisms.

Despite these developments, existing research has not yet provided sufficient theoretical guidance on how agentic AI can be embedded within government shared service operating models. Although scholarship at the intersection of shared services and AI is expanding, limited attention has been given to integrating agentic AI into the operating models of government shared service centres. Contributions on shared services, digital transformation, and AI in public administration are increasingly numerous, but the literature remains conceptually fragmented. Current literature focuses on organizational and process design within shared service centres, as well as the capabilities of emerging technologies (Bandi et al., 2025; Ren et al., 2025; Richter & Brühl, 2017). Research on shared services and public process management emphasizes organizational design, standardization, and efficiency. Digital transformation research often focuses on system integration and automated business processes. AI in the public sector is commonly viewed as task-level decision support. However, new forms of AI, such as agentic AI, can fundamentally change the coordination logic of shared service models (Dwivedi et al., 2026; Zhang et al., 2026). Shared service processes may also change as AI assumes part of the decision making process (Acharya et al., 2025; Murugesan, 2025). Nevertheless, there is limited theoretical guidance on how these technologies can be systematically embedded within operating models that govern service coordination and delivery. As a result, an integrative model is needed to connect shared service design, digital infrastructure, and the potential of AI-enabled autonomous decision making within a single operating model. Against this backdrop, the study develops a conceptual framework for agentic shared services that embeds service functions, autonomous agents, digital workflows, and governance mechanisms within a unified operating model for autonomous service coordination in government organizations.

Research Objective and Contributions

This paper develops a conceptual operating model for agentic shared services. The model addresses the coordination of administrative services across organizational boundaries within government settings; it addresses the challenge of managing administrative services across different functional domains. Furthermore, it presents one of the first comprehensive conceptual operating models for shared

services at the operating model level. Instead of developing a process model, this paper presents shared services as an agentic coordination system composed of service agents, service users, digital workflows, and enterprise systems. Appropriate governance mechanisms guide this system to achieve flexible and context-sensitive service coordination. In addition, the paper extends current research on shared services and digital transformation by applying an agentic perspective on AI to the design of operating models, rather than to task-level automation or decision support. In doing so, it offers both theoretical and practical contributions. Current research on shared services focuses mainly on efficiency and process automation, while this study explores autonomous, goal-driven service coordination across systems and functions. The proposed model is designed to support internal government entities, such as departments and administrative units. It focuses on the coordination of back-office shared services across organizational boundaries, while allowing limited interaction with external factors, such as suppliers, within these processes.

Literature Review

Operating Models of Government Shared Services

Shared services represent an organizational approach to standardizing non-core administrative activities through the creation of a dedicated centre of excellence that enables cost savings and process synergies across different ministries and departments. In this context, shared services refer to an in-house function operated within government, in line with general government principles, that provides a common set of standardized services to numerous agencies through Service Level Agreements.

Government shared services can be organised in several different ways using operating configurations characterized by varying degrees of centralization and integration (Bwalya & Tembo, 2025). These operating models determine the level of coordination among the agencies that use the services, and they may change over time as services become more integrated (Richter & Brühl, 2017). Government shared services are generally delivered through a centralised or hybrid business model. A centralised business model consolidates non-core activities into a single business unit to achieve economies of scale and process uniformity. A hybrid model, on the other hand, provides a central command structure for a set of shared services, while still delivering services through a decentralised model

that allows organizational flexibility (Bwalya & Tembo, 2025; Richter & Brühl, 2017). Yet, these distinctions are largely structural. They explain where services are located and how they are governed, but offer limited insight into how service coordination unfolds across functions, systems, and organizational boundaries.

The operating models of government shared services differ across functional units and business processes. Some models focus on specific functional domains such as accounting, personnel, procurement, and IT, while others adopt an integrated, process-oriented approach that spans the full service value chain (Richter & Brühl, 2017; Villela et al., 2025). More advanced shared service models are moving away from traditional bureaucratic functional structures toward integrated service models that bundle individual activities within a single shared service operating model (Pinto et al., 2025). Nevertheless, even these more integrated models remain largely process-oriented. They emphasize consolidation, standardization, and service integration rather than autonomous coordination or adaptive decision making.

Research into shared service configurations and operating models is gaining momentum. Current models of shared services have mainly treated their organization as an organizational design problem focused on standardizing processes and achieving efficiency. At the same time, there is growing recognition that advanced digital technologies can transform how shared services operate. However, little is known about how these technologies can transform the coordination logic underpinning service delivery. This paper investigates the potential of autonomous or intelligent systems to operate as operational actors within shared services.

Critically, current literature on shared services often treats the service model as a structural and process-based operating model. However, this view is not sufficient to explain shared services as a dynamic coordination system. More important than whether activities are centralised or standardised is how service requests, data, decisions, and exceptions are coordinated across functions in advanced government shared services. Current literature gives insufficient attention to the actors, mechanisms, and decision rights required for effective coordination.

Although previous research provides critical insights into organizational design, standardization, and efficiency in shared services (Bwalya & Tembo, 2025; Richter & Brühl, 2017; Villela et al., 2025), it mainly focuses on structural and process-based considerations. Previous literature does not sufficiently explain

the coordination logic used to manage services within shared services. Unlike prior shared services research, this study views shared services as an agentic coordination system in which independent agents play a coordinating role and service-management decision-making. Accordingly, this study conceptualizes shared services as an agentic coordination system driven by autonomous decision making, rather than only by structural design, centralization, and efficiency (Pinto et al., 2025; Richter & Brühl, 2017).

Digital Transformation in Government Shared Services

Digital transformation has become central to government shared services by automating and integrating administrative services and processes through digital technologies. Enterprise systems, such as ERP systems, workflow management systems, and digital contact portals, enable the integration, automation, and standardization of government administrative processes. These systems can enhance the efficiency of government service delivery. They also enable the integration and sharing of data and processes across government agencies, thereby improving cooperation and information sharing. The automation of government administrative processes can also improve accuracy and efficiency in service delivery (Ali & Maelah, 2025; Vieru & Arduin, 2016). However, this stream of research tends to emphasize technological enablement and efficiency improvement, while paying less attention to whether digital systems can alter the underlying coordination logic of shared services.

Digital infrastructures play a significant role in facilitating the coordination of shared services by creating connectivity between different functional domains and supporting end-to-end transparency. Governments and municipalities are launching digital transformation projects to move from isolated and manual processing to integrated software systems. These systems enable automation, monitoring, and analytical decision support across domains. Shared service centres that were once document-intensive have become digitally enabled service environments. Yet, this transformation often remains bounded by predefined workflows and system-based integration. As a result, coordination is improved but not necessarily made autonomous or adaptive.

Critically, research into digital transformation in shared services primarily explains how integrated systems, processes, and workflows can optimize administrative services. However, it does not sufficiently explain how decisions are made

in coordinating cross-functional requests and exceptions. Advanced shared services depend not only on integrated platforms but also on mechanisms that can read service requests, distribute tasks, manage dependencies, and escalate exceptions across domains.

Recent studies such as Ali and Maelah (2025) and Carter et al. (2024) emphasize system integration and workflow automation, but they do not address how coordination can be autonomously managed across functional domains; this aspect has not received sufficient attention. The key question is how systems and services can increase autonomy and flexibility through coordinated action. Unlike traditional process management, which is based on systems executing predefined rules, service coordination in a digital context requires a more fundamental transformation. Current research on shared services has tended to focus on the digital infrastructure and systems required for efficient service delivery. While this research recognizes the potential of technology to deliver efficiency savings, it often views technology as an enabler of “conventional coordination arrangements” coordination and service delivery. This paper takes a more advanced view by examining the potential of technology to support autonomous service coordination. While digital transformation studies emphasize system integration and workflow automation (Ali & Maelah, 2025; Vieru & Arduin, 2016), this study extends that perspective by addressing autonomous, cross-functional coordination beyond predefined workflows.

AI in Shared Services

AI is becoming an increasingly significant component of shared services, with the objective of increasing operational efficiency and improving the quality of back-office functions. In public administration organisations, AI technologies are mainly used for auxiliary back-office operations, such as document processing, the classification of citizen requests, workflow automation, and decision support. By introducing AI technologies into shared service operations, administrative work can be processed more rapidly and consistently. This facilitates faster and more reliable transaction processing at scale (Davenport et al., 2020; Wirtz et al., 2019). Intelligent automation tools increasingly optimize existing digital workflows and reduce manual work. However, this use of AI remains largely instrumental, as it improves the speed and reliability of existing processes without necessarily changing how shared service coordination is organized.

Although the number of administrative AI applications is growing, AI adoption in administrative settings remains uneven. Most current AI applications remain limited to single task automation and decision support within predefined business processes. Human staff therefore remain responsible for handling exceptions and making final decisions in complex or uncertain situations (Syed et al., 2020; Wirtz et al., 2019). So far, AI has primarily served as an enabling technology to improve the productivity of traditional shared service models, rather than as a basis for new ways of organizing service delivery. More advanced forms of AI have significant potential to increase autonomy and flexibility in public-sector shared services. However, these developments also raise important questions about accountability, administrative discretion, and the governance of AI-enabled decision making. These issues remain insufficiently addressed in existing shared services research (OECD, 2019; Wirtz et al., 2019). This creates a conceptual gap in the literature. AI is often treated as a tool for improving tasks, rather than as a mechanism that may redistribute coordination, discretion, and decision authority within the shared service operating model.

Critically, there is already valuable evidence on how AI can increase administrative efficiency. However, further research is needed on the organizational changes associated with the transition from AI-supported single tasks to AI-coordinated end-to-end service delivery. Moving beyond individual task automation requires a model for autonomous agents. These agents should be able to interpret service requests, coordinate across domains and functions, and operate within clearly defined governance boundaries.

While AI research has recently started to move beyond simple task automation toward adaptive decision making and multistep process orchestration, this potential remains largely untapped in public-sector shared services. Recent studies on AI in organisational and public-sector contexts focus primarily on improving efficiency through task level automation and decision support within predefined workflows (Syed et al., 2020; Wirtz et al., 2019). However, more recent research highlights the growing potential of AI systems to support adaptive and multistep decision making (Dwivedi et al., 2026). In contrast to prior work on task level automation and AI-supported decision-making (Davenport et al., 2020; Syed et al., 2020; Wirtz et al., 2019), this study operates at the operating model level. It examines goal driven coordination across services, systems, and domains. Building on this emerging direction, the study moves beyond task level applications by

examining how agentic AI can redefine service coordination at the level of the operating model.

Furthermore, the growing role of AI-driven autonomous coordination raises new questions about public administration principles, including accountability, administrative discretion, and transparency. The transfer of decision authority also requires appropriate traceability, auditability, and decision making boundaries. These challenges have already been addressed in several studies (OECD, 2019; Wirtz et al., 2019). However, they have not yet been integrated sufficiently into the design of future operating models for agentic shared services. To address this gap, this study incorporates governance and human oversight as core components of a framework for agentic shared services.

Agentic AI and Autonomous Organizational Systems

There has been significant research advancement in recent years on the development of agentic AI, which refers to autonomous AI systems driven by goals (Bandi et al., 2025; Dwivedi et al., 2026; Ren et al., 2025). The term agentic refers to systems that can observe, decide, and act upon goals and objectives. Unlike earlier types of AI, agentic AI systems are not limited to rule-based systems or customized task models. Instead, they can plan, reason, and perform sequences of actions in real time within digital environments (Acharya et al., 2025; Dwivedi et al., 2026). Therefore, these systems can perform a range of tasks across various digital domains and integrate with other automated systems. Their functions extend beyond typical automation. Rather than automating only single tasks, agentic AI extends functionality toward process and system automation. However, much of this literature remains focused on the technical capabilities of agentic AI, with less attention to how these capabilities can be translated into organizational operating models.

This paper evaluates different automation technologies from the perspective of their underlying coordination logic. For this purpose, three levels of automation are distinguished. At the lowest level, automation involves the semi-automated execution of predefined rules for well-defined tasks. The next level uses AI for prediction, classification, and decision-making within defined rules and frameworks. The highest level involves autonomous systems that pursue goals, develop plans, and coordinate across organizational boundaries. These systems are designed to cope with uncertainty in dynamic environments. These autonomous systems represent agentic AI. This distinction is important because agentic

AI does not simply represent higher automation. It represents a different form of coordination based on goals, context, and adaptive action.

Automation and AI-supported decision-making are not new phenomena. They typically involve the execution of rules in predefined workflows or the use of AI for predictive and analytical decision-making under limited human control. However, agentic AI takes this approach further by creating goal-driven agents. These agents understand objectives, plan multiple steps to achieve them, and coordinate dynamically across systems and domains in real time. This approach to automation and AI forms the basis of the agentic shared services model outlined in this paper.

The concept of agentic AI is also connected to the well-known field of multi-agent systems (MAS). In a MAS, multiple software agents may work individually or jointly to achieve shared or individual objectives. These agents interact, coordinate, and communicate with each other and with their environments. Within agentic coordination mechanisms, recent studies have shown that dynamic distributed service environments can be constructed. In these environments, software agents can collaborate to complete complex tasks (Zhang et al., 2026). Furthermore, agents in organizational settings can manage and automate complex multi-service and multi-workflow business processes. They can also automate many repetitive and routine tasks that typically require human involvement (Joshi, 2025). Nevertheless, multiagent research often explains coordination among software agents more than it explains how such coordination should be embedded within public-sector structures, accountability systems, and shared service governance.

Autonomous organizational systems require organizations to become more autonomous in their operations. In these systems, operational work is performed by autonomous agents and, in many cases, independently of humans. These agents gather and process relevant data and use this information to perform their tasks autonomously. In doing so, they integrate activities across business functions within dynamic and adaptive organizational systems. The tasks performed by agents are not limited to simple workflow automation. They are complex, multifaceted, and often require several steps (Acharya et al., 2025). This operational work supports new operating models that require continuous coordination and adaptation. The critical issue, therefore, is not whether autonomous agents can perform tasks, but how their actions can be organized, governed, and aligned with institutional objectives in government shared services.

Unlike automation or traditional AI, which support decisions and carry out tasks in a mostly structured manner, agentic AI systems are designed to achieve goals. To do so, they make plans and take actions step by step. They are flexible and able to operate across a variety of systems. Therefore, there is a significant difference between agentic AI, rule-based automation, and AI-supported decision-making. Agentic AI systems are more than tools used to complete tasks. They are operational agents that can participate in service coordination. Therefore, agentic AI can be managed within organizations through appropriate governance measures and human monitoring where necessary.

As AI becomes more agentic, new organizational and governance questions arise concerning accountability, control, and oversight (Murugesan, 2025). As administrative actions and decisions move from humans to information systems, new challenges emerge for public administration. Research on agentic AI and autonomous organizational systems is growing. However, this research remains limited in the context of government shared service models. Theories are needed to guide the integration of agentic AI into the operations of these models. This gap limits the ability of public organizations to move from experimental agentic AI applications to coherent operating models that define roles, responsibilities, escalation points, and coordination mechanisms.

Unlike existing agentic AI research, which is primarily centred on technological architectures and capabilities (Acharya et al., 2025; Bandi et al., 2025; Zhang et al., 2026), this study applies agentic principles to the design of organizational operating models in government shared services. This research stream establishes the foundations for agentic AI by examining autonomy, goal formation, goal pursuit, and multiagent coordination. However, much of this work has been conducted from a technological or general organizational perspective, with applications in areas such as sales, enterprise systems, and organization design. A central challenge lies in designing integrated operating models for government shared services. These models must address service design, governance, and coordination together. This is the challenge the present study addresses.

From Centralized Shared Services to Agentic Operating Models

Government organisations are increasingly extending shared service models beyond administrative consolidation. This transition reflects a shift from consolidating back-office functions toward more integrated and intelligent service environments. As Pinto et al. (2025) and Richter and Brühl (2017) explain, mod-

ern shared service centres build on previous shared services experiences. Earlier models focused mainly on integrating non-core back-office functions. Higher levels of cross-functional integration now provide the foundation for more advanced and adaptive service delivery models. However, this evolutionary view should not be interpreted as a simple linear improvement in technology. Rather, it reflects a deeper shift in how service coordination is organized, from centralized administrative processing to more distributed and intelligent forms of coordination.

Intelligent Shared Service (ISS) environments use advances in AI, machine learning, and robotic process automation (RPA) to streamline service handling and support decision making processes. AI can automate standard transactions and support data-driven decision making within workflows. At the same time, human back-end processing should be tracked, and appropriate actions should be taken to address exceptions. Following Davenport et al. (2020) and Wirtz et al. (2019), ISS clearly moves beyond rule-based automation. However, applying AI to ISS does not necessarily change the underlying coordination logic of the service process. Existing intelligent shared service approaches improve decision-making during business process execution. They do not fundamentally change the coordination structures through which services are delivered. In contrast, the agentic perspective adopted in this study shifts the focus from process optimization to autonomous coordination across services and systems. This distinction is critical. Intelligent shared services may improve decisions inside existing workflows, whereas agentic shared services reconfigure the coordination mechanism itself. They do so by allowing agents to manage interactions across services, systems, and functional boundaries.

Studies demonstrate increasing intelligence within workflows, but these workflows remain constrained by predefined coordination structures (Ali & Maelah, 2025; Carter et al., 2024). They do not fundamentally transform the coordination structure of service delivery. In contrast, the agentic perspective adopted in this study shifts the focus from process optimisation to autonomous coordination. In this model, intelligent agents actively manage interactions across services and systems (Zhang et al., 2026). The evolution of shared service operating models thus reflects a shift from centralized administrative processing toward increasingly autonomous forms of service delivery. The main boundary between intelligent and agentic shared services is not the presence of AI itself. Rather, it is the extent to which AI changes decision authority, task allocation, exception handling, and cross-functional coordination.

A growing number of organisations are moving from centralised shared services models to agentic operating models. This change is driven not only by tech-

nology but also by a shift in the coordination logic of the operating model. Traditional and digital models are often process-centric. Intelligent operating models improve decision support within existing processes. Agentic operating models, however, introduce autonomous operational actors. These actors coordinate service delivery at the operational level within and across organisations and systems.

Figure 1 depicts the evolution of shared service operating models. It moves from the traditional administrative model, based on a centralized back office and transactional processing, to the more agentic model of service coordination. This agentic model is based on intelligent agents and is characterized by greater digitalization, wider use of AI, and higher autonomy.

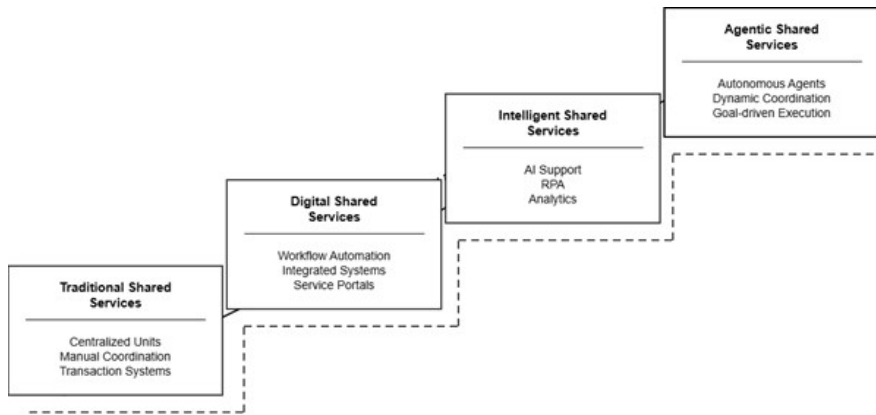


Figure 1: Evolution of Shared Service Operating Models from Process Automation to Agentic Service Coordination

Figure 1 illustrates the evolution of shared service operating models as information systems move from traditional to digital models. On the left side of the figure, the traditional and digital models are both primarily process-oriented and centrally coordinated through predefined processes. The intelligent shared services model, shown on the right side of the figure, uses AI to improve decision support. However, it remains largely process-oriented and therefore represents only a further stage in service coordination. The agentic shared services model, shown at the upper right, represents an entirely new level of service coordination. It is managed by autonomous agents that operate across systems and organizational boundaries, dynamically coordinating tasks across systems and functions to achieve defined objectives. This represents a new agentic operating model that differs from the process-centric focus on efficiency.

Table 1 summarises the main features of the four shared service operating models and illustrates how they differ from an agentic operating model. The table compares traditional manual shared services, digital shared services, intelligent shared services, and agentic shared services. It shows that traditional and digital shared services continue to rely on predefined processes and manual coordination between parties. Intelligent shared services may extend decision-making, but agentic shared services are distinguished by autonomous coordination through intelligent agents working toward clearly defined goals. The table therefore illustrates the main shift in the shared services operating model from a process model to an agent-based model.

Table 1
Evolution of Shared Service Operating Models

Operating Model	Service Coordination Logic	Role of Technology	Role of Humans	Main Limitations
Traditional Shared Services	Centralized administrative processing through organizational units	ERP and transactional systems	Direct execution and coordination of service processes	Limited integration and low operational flexibility
Digital Shared Services	Service coordination based on workflows across integrated systems	ERP, workflow automation and service portals	Monitoring workflows and handling exceptions	Rule-based processes and limited adaptability
Intelligent Shared Services	Service processing and decision support supported by AI	Machine learning, RPA and analytics systems	Supervising decisions supported by AI	Limited autonomy and dependence on predefined workflows
Agentic Shared Services	Autonomous coordination of services through goal-driven intelligent agents	Agentic AI systems and multiagent architectures	Governance, oversight and intervention in exception scenarios	Emerging model with limited empirical validation and implementation experience

Source: Adapted from Bandi et al. (2025), Ettinger (2025), Pinto et al. (2025) and Wirtz et al. (2019).

There is a growing body of literature on agentic AI and autonomous organisational systems. However, existing research remains largely focused on technological capabilities and general organizational applications. Less attention has been given to how these approaches can be systematically applied within government shared service environments. Therefore, conceptual models are needed to illustrate how agentic AI can be incorporated into shared service operating models.

Table 2 compares automation, AI, and agentic AI across several dimensions. These dimensions include the decision-making logic of each technology, its level and form of autonomy, the scope of actions it can coordinate, and its adaptability. In doing so, Table 2 shows that agentic AI enables autonomous, goal-driven coordination across systems and functional areas. This includes horizontal integration across systems and vertical integration across organizational functions. Agentic AI therefore represents a capability that goes beyond simple rule-following and decision support based on predefined decision-making frameworks.

Table 2
Comparison Between Automation, AI and Agentic AI

Dimension	Traditional Automation	Systems Supported by AI	Agentic AI
Decision Logic	Predefined rules and deterministic workflows	Data-driven predictions and decision support within predefined processes	Reasoning Driven by Goals with dynamic planning and multi-step decision-making
Decision Authority	System executes predefined rules; no independent decision-making	Shared between system and human; human retains final control	Delegated to autonomous agents within defined governance boundaries
Coordination Logic	Sequential coordination driven by processes	Process-centric with limited adaptive adjustments	Agentic coordination with dynamic interaction across systems and functions
Level of Autonomy	Low (execution only)	Medium (assisted decision-making)	High (autonomous and goal-driven behaviour)
Adaptability	Static; requires manual reconfiguration	Moderately adaptive based on data inputs	Highly adaptive; responds to context and environmental changes in real time
Scope of Operation	Task level automation	Task and partial support at the process level	Cross-functional and cross-system coordination
Human Involvement	High (for exceptions and oversight)	Medium (supervision and final decisions)	Selective (strategic oversight, exception handling, governance)

Source: Prepared by the researcher

As shown in Table 2, the shift toward agentic AI is not merely technological but also reflects a fundamental transformation in decision authority and coordination logic, which underpins the proposed agentic shared services operating model.

Research Gap

A considerable body of research addresses shared services, digital transformation, and AI in public administration. However, this research remains highly fragmented. Research on government shared services mainly examines organizational structure, service design, and potential efficiency gains. It pays less attention to the effects of advanced AI on the design of service operations (Richter & Brühl, 2017). Research on digital transformation in public administration focuses on integration and automation as key elements of shared services (Ali & Maelah, 2025; Vieru & Arduin, 2016). As a result, shared services research mainly emphasizes organizational development through standardization and digitalization. Limited attention has been given to the transformation of service coordination mechanisms toward more autonomous forms of operation. The limitation is therefore not only the absence of agentic AI from shared services research. It is also the absence of an operating model perspective that explains how coordination, decision rights, workflows, and governance mechanisms should change as autonomy increases.

Research on agentic AI has mainly focused on technical aspects, such as hardware and software design, autonomous agents, and enterprise automation (Acharya et al., 2025; Zhang et al., 2026). Conversely, organizational models and public-sector applications remain insufficiently examined (Bandi et al., 2025; Joshi, 2025; Ren et al., 2025). Autonomous organizational systems represent one possible application of agentic AI. However, research in this field does not sufficiently address the institutional frameworks, regulatory aspects, and business models required in public administration. Therefore, the organizational effects of agentic AI in shared service environments remain underexplored and require further theoretical development. This creates a second limitation: agentic AI is commonly discussed as a technological capability, while its organizational implications for service coordination, accountability, and public-sector control remain underdeveloped.

Unlike the study by Dwivedi et al. (2026), which conceptualizes agentic AI at the system and capability level, this study embeds agentic principles within an organizational operating model for shared services. There is currently no comprehensive framework explaining how autonomous agentic coordination can be embedded within shared service operating models. This study addresses that gap by developing a conceptual operating model for agentic shared services. The following section synthesizes the above components and outlines the proposed agentic operating model.

Scholarship on shared services, digital transformation, and agentic AI remains

fragmented across disciplinary boundaries. Studies on shared services and operating models focus on building structures to achieve efficiency. Digital transformation is usually viewed as a process for integrating systems and discrete processes to improve efficiency and effectiveness. Agentic artificial intelligence is primarily discussed from a technological perspective, with emphasis on increasing the autonomy of artificial agents. Taken together, these streams do not yet explain how autonomous agents, digital workflows, enterprise systems, and governance mechanisms can be combined into a coherent operating model for government shared services. To synthesize these streams and position the present study, Table 3 summarizes their focus and identifies the gaps that motivate the proposed agentic shared services operating model.

Table 3
Summary of Literature on Shared Services and Agentic AI

Research Stream	Main Focus	Key References	Identified Gap
Gov- ernment Shared Services	Organizational structures and consolidation of support functions	Andrews et al. (2020); Pinto et al. (2025); Richter and Brühl (2017)	Limited attention to intelligent and autonomous service coordination mechanisms
Operating Models	Centralized and hybrid service delivery models	Bwalya and Tembo (2025); Richter and Brühl (2017)	No operating models incorporating autonomous, agentic coordination
Digital Shared Services	ERP systems and workflow automation	Ali and Maelah (2025); Vieru and Arduin (2016)	Focus on automation within predefined workflows rather than adaptive or autonomous coordination
Artificial Intelli- gence in Services	Intelligent automation and decision support	Davenport et al. (2020); Syed et al. (2020); Wirtz et al. (2019)	AI treated as a supporting technology rather than a driver of operating model transformation
Agentic AI	Autonomous agents and multiagent systems	Acharya et al. (2025); Bandi et al. (2025); Joshi (2025); Ren et al. (2025); Zhang et al. (2026)	Limited application to government organizations and shared services, particularly in relation to structured operating models and governance frameworks

Cont. Table 3
Summary of Literature on Shared Services and Agentic AI

Research Stream	Main Focus	Key References	Identified Gap
Integrated Perspective	Combined organizational, technological and AI perspectives	-	Lack of integrated framework linking shared services, AI and agentic coordination in a unified operating model

Source: Prepared by the researcher.

Table 3 reveals a clear pattern across the literature. Although each of the three research streams has progressed considerably, the literature still lacks a model of service coordination as an independent system function. Studies on shared services and operating models focus on designing shared services to improve efficiency. Studies on digital transformation and AI adoption focus on optimizing existing workflows, often function by function. The emerging stream of research on agentic AI aims to advance autonomy and multiagent coordination. However, it has not yet been sufficiently applied to the design of future operating models for government shared services. The main contribution of this research is to apply an agentic perspective to service coordination. This introduces coordination logic that departs from conventional shared service models. It moves the study of shared services beyond task level automation and decision-support mechanisms and toward a new logic of coordination based on autonomous agents, goal-driven action, and cross-functional service integration.

Conceptual Framework

Agentic Shared Services Concept

While classical automation technology operates in a deterministic and predefined manner, agentic AI systems act and learn in digital environments through continuous interaction with data and context. Thus, agentic AI can perform various tasks, integrate with enterprise systems, and respond to the dynamic requirements of service delivery (Balodis, 2025; Piccialli et al., 2025). Agentic AI is therefore highly relevant to shared service environments. In these environments, service delivery requires continuous alignment across functional domains and enterprise systems.

From an organisational perspective, shared services can be seen as moving from process-oriented service provision to agent-oriented service management. In the classical process-oriented view, shared service processes are executed through specific workflows performed by people and technology. In agentic shared services, autonomous intelligent agents carry out most routine service coordination and operational decision making. Human actors remain responsible for strategic issues, policy decisions, and exceptional cases. The agents therefore support service provision in a continuous and adaptive manner.

Agentic shared services can be conceptualized as an operating model in which autonomous intelligent agents perform administrative service tasks within a digitally integrated government organization. These agents interact with enterprise systems, data, and users to perform discrete service tasks and coordinate cross-functional workflows. In this model, traditional centralized administrative structures evolve into digitally coordinated service environments. Intelligent agents become operational actors responsible for service execution and coordination.

Foundations of the Agentic Operating Model

The proposed agentic operating model for government shared services draws on several streams of theory and research. These include operating model theory, enterprise architecture, business process management, and digital transformation in the public sector. An operating model is “*the resource, process and technology arrangements that make an organization work and enable it to deliver its services efficiently and effectively across its units and functions*” (Ettinger, 2025). A government shared service operating model is therefore generally based on standardized processes, centralized services, and integrated infrastructure. These elements support shared functions such as HR, finance, procurement, and IT, and provide a foundation for more automated processes.

Standardised and well-defined processes are a well-established foundation of BPM research for realizing integrated and coordinated services. Processes need to be clear and accessible to achieve the service level agreements required by business units for shared services (Harmon, 2019; Weske, 2024). Many government organisations have undertaken digital transformation by replacing legacy applications with enterprise systems, workflow platforms, and integrated data layers. These initiatives aim to automate processes and support end-to-end services. Such investments have strengthened process integration and created the technological conditions required for advanced automation and AI. In many cases, government organisations have therefore developed the digital foundations needed for more autonomous service delivery.

These concepts have also been extended to autonomous agent applications. In such applications, autonomous agents act as operational components within an organization. They operate within enterprise platforms and computing environments, use organizational information resources and services, and operate within defined rules and constraints (Abou Ali, 2025; Piccialli et al., 2025). An agentic operating model is composed of structures, processes, technology, and agents. Structures and processes are derived from traditional operating models, while technology and agents introduce new elements into the agentic model. Together, these four elements underpin the shared services structure in government organisations. This integrated view provides a basis for understanding how autonomous agents can be embedded within existing organizational and technological structures.

Current shared service models, including those discussed by Pinto et al. (2025) and Richter and Brühl (2017), are based on standardized processes and systems. Staff manage the process flow between applications, business units, and other stakeholders. The proposed framework for agentic shared services extends these models by incorporating autonomous intelligent agents within a fully digitalised environment. These agents do not merely support processes; they also help manage and coordinate them. In this sense, agentic shared services represent the next generation of operating models. They move beyond process-centric coordination toward agentic operational control. The following section builds on this foundation to develop the architectural model of agentic shared services.

Architecture of Agentic Shared Services

This section discusses the architecture of agentic shared services by focusing on the interactions between autonomous intelligent agents and their operating environment. This environment includes the government organization's systems, data sources, and service users. The architecture of agentic shared services differs from traditional shared service architectures, which are mainly application-centric and designed to execute workflows. By contrast, agentic shared services facilitate administrative services by enabling autonomous agents to interact with each other and with the digital environment. The architecture presented in this paper is designed incrementally. It encompasses interactions among users, agents, workflows, enterprise systems, and governance mechanisms within an integrated service environment (Abou Ali, 2025; Alenezi, 2026; Piccialli et al., 2025).

Layer 1: Service Users and Request Initiation

This layer consists of service users and demand initiators within an agentic service environment. These may include internal government users, such as or-

ganizational departments, administrative units, and employees. They may also include external suppliers when their interactions with government are processed as part of internal administrative processes. The role of this layer is to generate demand for shared services and convert service needs into formal service requests. These requests can then be processed within the relevant service workflows. Interaction between this layer and autonomous intelligent agents occurs when service requests are transferred to agents for processing. The requests are interpreted, decomposed into individual tasks, and routed to the relevant shared services. This layer anchors agentic service coordination in organizational demand. Autonomous service activity is therefore generated from concrete user needs, rather than from purely system-based operations.

Layer 2: Autonomous Intelligent Agents

This layer contains the autonomous execution and coordination units within the proposed model. These autonomous intelligent agents perform administrative tasks and communicate with other agents and computer systems. They also participate in digital workflows and access or modify data within and across enterprise systems and organizational data sources. The agents in this layer transform service requests into actions. They identify the required actions and execute them fully or partially within HR, finance, procurement, or IT tasks. They also coordinate these tasks across different domains. The agents interact with other agents, digital workflows, enterprise systems, and organizational data sources. This layer is central to the proposed model's automation contribution. It transforms process automation into agentic service coordination. The core function of these agents is to coordinate service delivery on a goal-driven basis.

Layer 3: Workflow and Coordination Mechanisms

This layer comprises digital workflow and coordination mechanisms, which manage the distribution of tasks among various agents, systems, users, and service processes. The procedural sequence required to complete tasks is defined in this layer. Interactions within this layer are utilized for communication among various agents, routing of tasks, and modification of tasks as required by changes in service requirements. This layer contributes to the traceability, consistency, and flexibility of government shared services. It also facilitates the required procedural discipline where intelligent agents operate with considerable autonomy in delivering services.

Layer 4: Enterprise Systems and Data Infrastructure

The fourth layer of agentic shared services refers to the technological environment and the data infrastructure of an organization. This technological environment comprises enterprise resource planning systems, workflow engines, organizational databases, and integrated digital platforms supporting the business functions of an organization. At this level, autonomous agents interact with the preceding layers of the model in order to access information, invoke functions of systems and applications, update organizational records, and connect their actions to the official procedures supported by the systems of an organization. Thus, this layer ensures that agentic coordination is not detached from the organization's formal systems, but remains embedded in its institutional systems, enterprise architecture, and data structures (Carter et al., 2024; Ettinger, 2025).

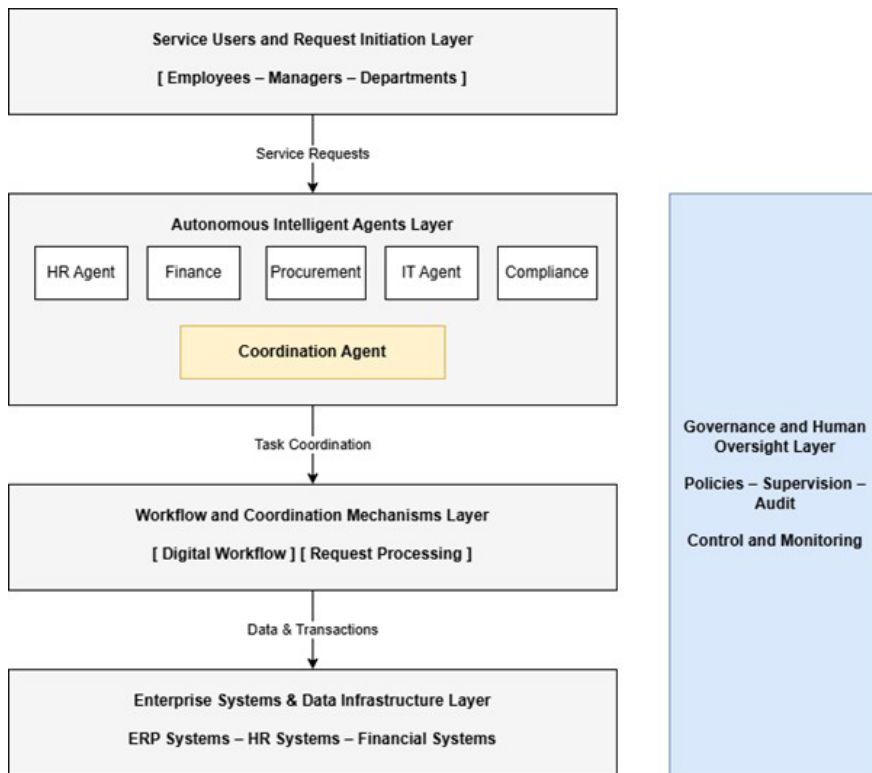
Layer 5: Governance and Human Oversight

This layer consists of policies, rules, oversight mechanisms, and human intervention arrangements. It monitors services, logs activities, audits services, escalates problems, and intervenes in critical or risky situations. The contribution of this layer is to ensure that the services delivered by autonomous agents are accounted for, transparent, under public sector control, and governed. In summary, shared services can become agentic, but they must remain governed, auditable, compliant, and traceable by all relevant bodies that have a regulatory interest in the services (Adabara et al., 2025; OECD, 2019).

Figure 2 shows the interaction logic of the proposed agentic shared services architecture. Solid lines represent directional interaction between the different layers. First, service users interact with autonomous agents by submitting service requests and task requirements. The agents then engage with the workflow layer through repeated processes of task decomposition, task assignment, and activity coordination. Agents also interact repeatedly with enterprise systems to retrieve data and invoke system functions required for service provision. The governance and human oversight layer exercises top-down control over all other layers. It expresses organization-specific policies and controls, monitors service usage, logs activities, audits actions, and provides feedback to the other layers.

The three flows, Directives Flow, Data Flow, and Coordination Flow, define the governance boundaries within which autonomous agents operate. They also allow governance to remain dynamic, while service execution remains con-

text-sensitive and service-specific. These flows should be understood as governance, data, and coordination mechanisms, rather than as restrictions on autonomy. Traditional shared service models are hard-wired to require control, data sharing, and coordination at each transition point within the workflow. The proposed model enables agents to act autonomously within a governance framework. It also supports interaction across systems, full traceability, and appropriate control. This model therefore shifts the focus from process-driven and inflexible service execution to dynamically coordinated service delivery enabled by autonomous agents that interact across systems.



**Figure 2: Conceptual Architecture of Agentic Shared Services
in Government Organizations**

Functional Agents in Government Shared Services

The functional agents correspond to the main functional domains of government shared services, including Human Resources, Finance, Procurement and IT.

Each functional agent is a specialized operational entity responsible for executing service tasks within its functional scope. Functional agents receive service requests from users or internal processes, determine and perform the required activities while accessing enterprise systems and data sources to support service execution. These agents represent a departure from traditional shared service models, where human actors perform tasks within predefined processes. In contrast, functional agents execute tasks autonomously and interact with enterprise systems and other agents to complete service activities.

HR agents manage personnel information and process requests such as leave and other employee services. They may also support cost validation where required. Financial, procurement, and IT agents verify budgets, accounting records, and supplier information. They also manage purchasing activities, system access, and technical services. Through this specialization, functional agents replicate the structure of traditional shared services while enabling continuous and autonomous service coordination across functional domains.

Agent Interactions and Service Workflows

Agentic shared services refer to interactions between agents and service workflows across business units and organisational boundaries. In government, shared services typically involve back-office administrative functions and processes distributed across departments or agencies. Information sharing, knowledge sharing, and collaboration between public servants can therefore be studied from an agentic perspective. This perspective focuses on digitally managed workflows through which agents perform service tasks (Piccialli et al., 2025; Yuksel et al., 2025).

Service workflows define the sequence of activities that begins with an organizational user's service request. The request is then processed by a coordination or service agent, followed by workflow execution and, where necessary, the involvement of functional agents for validation and processing. In multistage workflows, this structure provides a controlled approach for handling services throughout the workflow lifecycle. It also enables service agents to make informed decisions at different stages of the process.

Exception handling and control mechanisms are also implemented within workflows. When a service or workflow step within an agentic shared service cannot be fully automated, it is routed to the governance layer for appropriate decision making. The service therefore has the autonomous capability to coordinate core service

activities while using workflow management to ensure accountability. However, when processes cannot be completely automated, human intervention is used to ensure that appropriate services are delivered to service users and stakeholders.

Illustrative Government Scenario: Procurement Request Processing

Procurement provides an illustrative example because it requires coordination among procurement, finance, compliance, and enterprise systems. Departmental procurement requests are submitted through the service portal. A coordination agent then interprets the request, identifies the required actions, and assigns tasks to the relevant functional agents.

When department level procurement requests are routed through the service portal, they are sent to a coordination agent for interpretation and processing. The coordination agent does not rely on a fixed workflow for each request. Instead, it dynamically decomposes the request into individual tasks, determines their sequence, and assigns them to the appropriate functional agents. This task assignment is based on the context of each procurement request. It allows agents to coordinate across procurement, finance, compliance, and enterprise systems according to the specific characteristics of the request. This represents a shift from sequential human coordination to agentic coordination across multiple functional domains.

The procurement agent validates the initial purchase request. It verifies the required product or service specifications, approved suppliers, and framework contracts. If all necessary requirements are met, the agent proceeds with the automatic generation of the purchase order. If the requirements are not met, the purchase request is returned to the originator for additional information.

Financial agents check whether the available budget is sufficient for the requested procurement action. They also verify that the request does not violate budgetary restrictions established at the management level. If the available budget is insufficient, the request is referred to the responsible decision maker. This person decides whether the request should proceed, be modified, or be rejected. If the budget is sufficient, the request proceeds to the next stage.

Compliance agents verify that the requested action complies with organizational standards and applicable laws. If uncertainty or unusual circumstances arise, the request is escalated to a manager and communicated back to the compliance agent. After validation, the coordination agent uses the information provided by the functional agents to initiate the procurement workflow in the enterprise

systems. It then notifies the requesting department of the request status. Human review remains necessary when a request falls outside predefined automated authority levels. In such cases, the request is sent to a higher level decision maker, who may accept, modify, or reject the system's recommended actions before implementation. To further clarify the operational differences between traditional and agentic shared service models, Table 4 presents a comparative view of the procurement process across key stages of service delivery.

Table 4
Comparison of Procurement Process: Traditional vs
Agentic Shared Services

Stage	Traditional Shared Services	Agentic Shared Services
Request initiation	User submits request through service portal; manually routed	User submits request; automatically interpreted by coordination agent
Task assignment	Assigned manually or via predefined workflow	Coordination agent dynamically assigns tasks to functional agents
Validation (Procurement)	Procurement staff review requirements and suppliers	Procurement agent verifies requirements, suppliers and contracts autonomously
Budget verification	Finance department checks budget manually	Finance agent checks budget constraints automatically and flags exceptions
Compliance check	Compliance review performed by human staff	Compliance agent evaluates regulatory constraints and escalates only uncertain cases
Workflow execution	Sequential, predefined workflow across departments	Dynamic, multiagent coordination across functions
Exception handling	Routed to human managers for decision	Agents escalate exceptions to governance layer when thresholds are exceeded
Decision-making	Driven by humans	Driven by agents with human oversight
Human role	Execution and coordination	Governance, supervision and exception handling
Level of autonomy	Low	High (with controlled oversight)
Coordination logic	Centralized and sequential coordination across functions	Decentralized and agentic coordination based on goals and context

Table 4 shows how task processing differs in the agentic shared services model. Unlike traditional approaches, the agentic model is based on autonomous coordination among autonomous agents that process tasks automatically and interact with relevant functional areas when needed. Agents also proactively identify exceptions and process them autonomously in accordance with organisational governance rules. This means that, after the initial setup of governance rules, most processing is undertaken by agents. This includes escalation to other agents or managers when required. As a result, several operational advantages can be gained from implementing an agentic shared services model.

As shared services move further along the continuum, the mode of operation and the handling of exceptions change fundamentally. As shown in Table 4, the shift from the traditional shared services model to the agentic model involves a move from human coordination between functions to agent coordination across systems, domains, and functions. In the traditional model, humans respond to exceptions after they occur. In the agentic model, agents detect problems, proactively manage and escalate them when necessary. Thus, the model shifts from process-oriented service execution to goal-driven service management.

Governance and Human Oversight

While agentic shared services offer a high level of autonomy in executing administrative tasks, control and monitoring remain necessary. This is especially important in governmental contexts, where service delivery must comply with government regulations. Autonomous agents can act only within predefined policy boundaries and under defined authorization schemes. These boundaries ensure that agents support organizational goals while maintaining regulatory compliance. The governance layer is therefore essential for trustworthy and transparent autonomous service operations. Governance in agentic shared services refers to the rules of engagement that define agent behaviour and the boundaries of autonomous action. As mentioned earlier, organizational policies can be implemented as decision rules within agents' autonomous systems. This enables more predictable, auditable, and improved service delivery outcomes (Adabara et al., 2025; Ghosh et al., 2025).

Human oversight is one of the core governance elements of agentic shared services. It ensures that automated activities remain within assigned task boundaries and that appropriate decisions are made. Agents can carry out many routine tasks

related to service coordination and operational decision-making. However, humans remain responsible for interpreting governance rules, making strategic decisions, and handling complex service choices and actions. Audit and monitoring are also important for ensuring accountability in an agentic shared service model. The activities of autonomous agents should be auditable. This requires logging the actions taken by agents, including requests made and actions performed. Such records support learning and enable the audit of service decisions. Monitoring is also needed to help agencies identify abnormal behaviour and assess agent performance. Compliance with corporate rules and standards should also be monitored to provide an additional layer of assurance. An appropriate monitoring, audit, and governance regime can strengthen citizen and agency confidence in the use of autonomous systems for service delivery.

Discussion

Theoretical Contributions

This study is among the early contributions to the literature on government shared services and AI from an operating-model perspective. It develops the concept of agentic AI as a new operating model for shared services. Current models of government shared services concentrate on the structure of shared service arrangements and the automation of administrative tasks. This study extends these models by introducing autonomous service coordination through intelligent agents. It also contributes to the literature on digital operating models and organisational change by examining the structural role of agentic AI in service provision, rather than treating it only as a supporting technology.

A second contribution lies in the development of a layered conceptual architecture. This architecture provides an integrative level of abstraction and incorporates several actors and components within one model of autonomous service operations. These include service users, shared service functions, autonomous agents, workflows, enterprise systems, and governance mechanisms. In doing so, the model facilitates the embedding of autonomous service operations in the government sector.

The third contribution is that this study extends earlier work in three main respects. First, it adopts a theoretical perspective that differs from previous studies. In particular, it draws on contingency theory to explain the contextual conditions under which government shared service arrangements may be most effective. Sec-

ond, it offers a different conceptualisation of public sector administration. Rather than viewing public administration as a rule-based and process-driven system, it conceptualizes it as a coordinated service environment in which autonomous agents can support service delivery under governance constraints.

The study also contributes to emerging scholarship on agentic AI. It focuses on the governance of autonomous service operations in the public sector and provides a framework that addresses the need for both control and accountability in AI-enabled public service systems. Collectively, these contributions advance theory on the role of agentic AI in designing shared service operating models for government. They also open new avenues for empirical research into the effects of autonomous service operations. At the same time, they advance theory in the broader domains of shared services, digital transformation, and agentic AI.

Practical Implications

Rather than pursuing full automation of an entire service process, the recommended approach is to automate specific activities within that process by introducing relevant functional agents. Early opportunities for implementation are most evident in non-core back-office activities, such as human resource management, financial management, procurement, and IT services. These activities typically involve frequent routine transactions and are governed by well-defined processes and rules. Singla et al. (2025) similarly recommend that new functional agents should be implemented in phases. In this view, implementation would begin with selected back-office functions and gradually expand to additional service domains. Davenport and Ronanki (2018) provide comparable guidance, suggesting that organizations should begin by automating routine and repetitive tasks that can be performed by “bots.” This can then be followed by the progressive automation of workflows across broader business functions (Davenport & Ronanki, 2018; Singla et al., 2025).

The framework also indicates that organisational readiness and digital infrastructure are prerequisites for enterprise-level agentic shared services. Autonomous agents require integrated enterprise systems, common data formats, and rules governing the actions that can be performed within service processes. A heterogeneous IT environment, inconsistent data formats, and fragmented administrative processes are likely to disrupt business operations. This is especially likely when an organization lacks integrated systems, common data standards,

and standardized administrative processes. Achieving enterprise-wide system integration, data quality, data consistency, and process standardisation can reduce uncertainty about changing work practices. It can also help organizations realize the benefits of a more coherent operating model (Ettinger, 2025; Harmon, 2019).

This framework provides governments with a practical tool for planning the transition to agentic shared services. It identifies the main components of an agentic operating model and helps government decision-makers understand what such a model would involve. In this way, it can support a more structured and manageable transition toward agentic shared services.

Limitations and Directions for Future Research

Although the design of agentic shared services is grounded in the literature on shared services, digital transformation, and agentic AI, there is not yet a real-world example of its implementation. As noted by Paré et al. (2025) and Ren et al. (2025), conceptual frameworks are essential for advancing theoretical knowledge in a given field, but they require empirical validation. Accordingly, future research should examine the feasibility and impact of adopting agentic shared services in real-world government organizations. This could be done through case studies or pilot implementations.

A second limitation concerns technological feasibility. Recent research on intelligent agents and multiagent systems confirms the feasibility of autonomous service coordination and, in some cases, its necessity. However, further research is needed on solutions that ensure system robustness, security, and scalability. Moreover, additional investigations into agent architectures and coordination mechanisms are required to support the technology of agentic shared services (Abou Ali, 2025; Piccialli et al., 2025).

A further limitation concerns the governance and implementation risks that arise when administrative tasks are executed or coordinated by autonomous agents. In government organizations, where administrative decisions are taken by civil servants, it is important to ensure that these decisions remain lawful and explainable. Administrative decisions must remain within the institutional remit of the organization, while ensuring accountability, transparency, auditability, clear decision rights, and human oversight (Adabara et al., 2025; OECD, 2019). Successful implementation of agentic shared services will require more than technology. Organizations must also be ready for this transition. Several barriers may

affect the distribution of tasks between staff and agents. These include uncertainty, poor data quality, fragmented systems, and fragmented administrative processes. Cybersecurity challenges and the definition of boundaries between tasks performed by staff and those performed by agents also pose significant challenges (Adabara et al., 2025; Ghosh et al., 2025).

Several directions can be pursued in future research based on these findings. Most urgently, the model needs empirical validation. Case studies of early implementations of intelligent agents in government shared service centres are therefore essential. Such studies could examine their effects on civil service organizations and administrative service delivery. Further research could then adopt a multiple-case study design, examining several civil service organizations to identify the structural factors that influence the rollout of agentic shared services.

Conclusion

This paper introduces the concept of agentic AI as a new operating model for shared services in government organizations. Drawing on the fields of shared services, digital transformation, and AI, the paper presents a model explaining how autonomous artificial agents can perform administrative service tasks in a fully digital and connected government context. The paper also introduces a framework for agentic shared services. This framework builds on the traditional centralized model of shared service delivery and extends it into an autonomous and intelligent model of service coordination based on autonomous agents.

This research extends current models of government shared services beyond business process improvement through digital technologies toward autonomous service delivery. The study develops a conceptual architecture composed of service users, shared service functions, autonomous agents, digital workflows, enterprise systems, and governance arrangements. Together, these components form an operating model for agentic shared services. The study makes two principal contributions. First, it provides a conceptual design and illustrative application of agentic AI in the context of shared services. Second, it shows how agentic shared services can remain compliant with the governance requirements of public-sector organisations.

Many government administrative functions still rely on significant human intervention. The integration of intelligent or agentic technologies has the potential to transform how these services are delivered. Such integration can support more

dynamic, adaptive, and efficient shared service environments. However, further research and experimentation are needed to understand the organizational and technological conditions required for more autonomous service coordination. This paper contributes to that research agenda by developing a theoretical framework for empirical investigation. It also supports the future theorization of the affordances and organizational practices associated with agentic AI in modern government shared services.

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Madeeh N. Elgedawy is an Associate Professor of Information Systems and Portfolio Manager of Projects at the Research and Studies Centre, Institute of Public Administration, Saudi Arabia. He holds a Ph. D. in Information Systems from Cairo University in 2013. His research interests include artificial intelligence, machine learning and data analytics. (gedawym@ipa.edu.sa)