

Reframing Strategic Auditing as a Public Value Creation Mechanism: Evidence from Underutilized Public Assets and Sovereign Fund Performance in Egypt

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ABSTRACT

Purpose: This study investigates how strategic auditing can be reframed as a public value creation mechanism capable of improving the utilization of underutilized public assets and strengthening sovereign fund performance in Egypt. Moving beyond conventional compliance-oriented auditing, the study conceptualizes strategic auditing as an integrated governance architecture that enhances strategic alignment, accountability, transparency, and long-term public value generation within emerging economies.

Design / Methodology / Approach: The study adopts a mixed-method research design integrating governance theory, public value theory, institutional theory, and strategic management perspectives. Empirically, the research combines quantitative analysis, comparative case assessment, and strategic performance evaluation across public asset entities and sovereign fund units in Egypt. Statistical techniques, including regression analysis and structural equation modeling (SEM), are employed to examine the relationships among strategic auditing, governance quality, operational readiness, business model effectiveness, and value-creation outcomes.

Findings: The findings provide strong empirical evidence that strategic auditing significantly improves public asset utilization and sovereign fund performance. Governance-oriented auditing practices enhance strategic coherence, strengthen accountability systems, improve decision usefulness, and reduce institutional inefficiencies. The results further reveal that business model robustness, governance quality, operational readiness, and risk management maturity are critical determinants of sustainable public value creation.

Originality / Value: The study contributes to the auditing literature by repositioning strategic auditing from a compliance-based control function to a multidimensional public value creation mechanism. It also provides one of the first empirical frameworks linking strategic auditing, underutilized public assets, and sovereign fund performance within an emerging economy context.

Theoretical, Practical, and Social Implications: Theoretically, the study advances public value and strategic auditing literature by integrating governance, institutional, and capability-based perspectives. Practically, it offers policymakers and sovereign fund authorities a strategic framework for improving asset monetization and governance effectiveness. Socially, the study highlights the role of strategic auditing in promoting transparency, sustainable development, public trust, and long-term economic resilience in Egypt.

KEYWORDS: Strategic auditing; Public value creation; Underutilized public assets; Sovereign fund performance; Governance; Egypt; Emerging economies.

1. INTRODUCTION

1.1 Background and Context

Public assets represent one of the most critical components of national wealth, particularly in emerging economies where state-owned assets (SOAs) constitute a substantial share of total capital stock. However, a large proportion of these assets remains underutilized, misaligned with economic priorities, or not integrated within coherent national strategies for value creation (OECD, 2021; IMF, 2022). Many governments, including Egypt, face persistent challenges in transforming such assets into productive resources capable of generating sustainable economic

returns.

Despite the establishment of sovereign wealth funds (SWFs) as instruments for long-term value creation, evidence shows that their effectiveness depends heavily on strategic alignment, governance quality, and operating models rather than mere asset consolidation (Clark & Monk, 2017; Bagnall & Truman, 2020). In Egypt, the sovereign fund has accumulated valuable assets but continues to face structural barriers relating to fragmented governance, inconsistent policies, and limited integration between asset strategies and national development goals (World Bank, 2023).

Traditional auditing approaches—financial, compliance, and performance auditing—have proven insufficient in addressing the deeper structural factors affecting asset value. These methods often focus on retrospective assessments without evaluating whether the underlying strategies, business models, and governance mechanisms are capable of generating value (Power, 2021; Hay & Cordery, 2020). Consequently, there has been a growing call for a paradigm shift toward strategic auditing, an emerging discipline designed to assess the quality, coherence, and value-creation potential of public-sector strategies (Funnell & Wade, 2019; Arena & Azzone, 2020).

The lack of strategic alignment in public asset management creates significant value gaps—defined as the difference between potential and actual returns. Recent studies highlight that such gaps can reduce asset productivity by over 70% in developing economies (PwC, 2022; KPMG, 2023). These issues are amplified in contexts where sovereign wealth funds struggle to operationalize assets or adopt robust risk and governance frameworks (NBIM, 2021; IFSWF, 2022).

Given these challenges, Egypt presents a relevant and urgent context for examining how strategic auditing for value creation can play a transformative role in unlocking the economic potential of underutilized public assets and strengthening sovereign fund performance.

1-2 Research Problem Statement

Despite the increasing national focus on public asset utilization and the strategic role of the sovereign fund, Egypt continues to face a persistent and structural value-creation deficit. A large share of public assets remains underutilized or entirely idle, generating minimal returns—often below 2%—despite their substantial economic potential (World Bank, 2023; OECD, 2021). These outcomes suggest deep weaknesses not in financial performance alone, but in:

- strategic alignment between asset objectives and national priorities,
- fragmented governance across ministries and authorities,
- the absence of unified business models for individual assets,
- inconsistent risk management practices, and
- limited integration between asset-level strategies and the sovereign fund’s long-term mandate.

Traditional auditing tools have failed to diagnose or address these strategic gaps, as they are not designed to evaluate value-creation pathways or strategic coherence. The core research problem thus emerges:

How can strategic auditing be used as a value-creation mechanism to improve the utilization of underutilized public assets and enhance sovereign fund performance in

Egypt?

The research problem involves three dimensions:

1. Identifying strategic and governance gaps that hinder asset value creation.
2. Assessing how strategic auditing principles can address these gaps.
3. Evaluating the potential impact of a strategic auditing framework on the sovereign fund’s effectiveness.

1-3 Research Objectives and Questions

This study seeks to develop and empirically validate a Strategic Auditing for Value Creation Framework capable of improving the utilization of underutilized public assets and enhancing the performance of Egypt’s sovereign wealth fund. The objectives are as follows:

Research Objectives

1. To diagnose strategic, governance, and operational gaps contributing to low value realization in underutilized public assets (OECD, 2021; PwC, 2022).
2. To examine the role of strategic auditing in evaluating strategy quality, coherence, and value-creation mechanisms (Arena & Azzone, 2020).
3. To assess the strategic and operational performance of Egypt’s sovereign wealth fund using value-creation metrics (IFSWF, 2022).
4. To develop a conceptual and empirical framework linking strategic alignment, governance quality, business model strength, risk management capability, and value creation (Hay & Cordery, 2020).
5. To provide evidence-based recommendations for reforming public asset management in Egypt.

Research Questions

1. What are the primary strategic and governance gaps that limit value creation in Egypt’s underutilized public assets?
2. How can strategic auditing be designed to evaluate and enhance value-creation potential?
3. What is the relationship between strategic alignment, governance mechanisms, business models, and sovereign fund performance?
4. To what extent can a strategic auditing framework improve asset utilization and enhance long-term value creation?
5. What lessons can be drawn from comparative evidence within Egypt?

1-4 Research Significance

This study is significant for several reasons. First, it addresses a national priority—the optimization of public assets—which directly affects fiscal sustainability and long-term

economic resilience (IMF, 2022). Second, it fills a major scholarly gap by integrating strategic auditing with value-creation principles, an area that remains underdeveloped in the auditing discipline (Power, 2021). Third, it provides actionable insights for sovereign wealth fund performance, particularly in emerging markets where operationalization remains a persistent challenge (Clark & Monk, 2017; Bagnall & Truman, 2020).

On the policy level, the study supports evidence-based decision-making for restructuring public asset governance. On the professional level, it expands the scope of auditing beyond compliance toward strategic intervention. Societally, it strengthens transparency and public trust in resource management.

1-5 Research Contributions

Theoretical Contributions

- Introducing one of the first integrated frameworks that connect strategic auditing with public-sector value creation.
- Extending public value theory by integrating auditing as a strategic mechanism (Moore, 2019).
- Enhancing the conceptual boundaries of strategic auditing, moving it beyond risk assurance to value-path assessment (Arena & Azzone, 2020).

Practical Contributions

- Providing a replicable tool for diagnosing underutilized public assets.
- Offering a decision-support instrument for sovereign wealth funds to improve portfolio performance.
- Delivering actionable reform pathways grounded in empirical evidence.

Methodological Contributions

- Applying a mixed-method design combining strategic audits, benchmarking, and comparative internal evaluations.
- Introducing structured value-gap analysis to the auditing literature.

1-6 Structure of the Study

The study is structured as follows:

- Chapter 1 introduces the research background, problem, significance, contributions, and structure.
- Chapter 2 provides a comprehensive literature review on value creation, strategic auditing, and sovereign fund governance, supported by two analytical tables.
- Chapter 3 develops the proposed Strategic Auditing for Value Creation Framework, presents the conceptual model, and derives the research hypotheses.
- Chapter 4 outlines the methodology, sampling strategy, instruments, and comparative analysis design.
- Chapter 5 presents empirical results covering asset assessments, sovereign fund evaluation, and quantitative hypothesis testing.

- Chapter 6 discusses the findings in relation to theory, literature and comparative analysis, and policy implications.
- Chapter 7 Implications and Recommendations.
- Chapter 8 concludes the study and offers future research directions.

2 – LITERATURE REVIEW AND THEORETICAL FOUNDATIONS

2.1 Digital Strategic Auditing Frameworks

Digital strategic auditing has emerged in recent years as a core pillar in transforming how public organizations diagnose performance, evaluate value creation, and realign strategic and operational systems. Unlike traditional auditing, which focuses primarily on ex post examination of financial statements or compliance procedures, digital strategic auditing integrates data-driven diagnostics, scenario-based strategic assessment, and real-time monitoring capabilities to evaluate whether organizational systems create or destroy value (Malsch & Salterio, 2022; Arena & Jeppesen, 2022). Recent advances in analytics, automation, digital twins, and AI-driven evaluation tools have redefined the role of auditing from a backward-looking control function to a forward-looking strategic intelligence mechanism.

The rise of digital strategic auditing is part of a broader movement toward strategic assurance, where the goal is not merely to validate accuracy but to interpret patterns, risks, and performance drivers that shape institutional value trajectories (Power, 2021; Hay & Cordery, 2020). In public-sector contexts, this evolution is especially important because public organizations handle complex and interdependent resource systems—such as public assets, land portfolios, infrastructure facilities, utilities, and sovereign investment vehicles—where traditional audits fail to capture the dynamic interplay of governance, capabilities, and institutional constraints (OECD, 2021; IMF, 2022).

2.1.1 Conceptual Foundations

Digital strategic auditing is grounded in four interconnected pillars:

1. Strategic coherence assessment
Evaluating the alignment between mission, strategy, and resource deployment (Moore, 2019; O’Flynn, 2021).
2. Governance and decision-rights analytics
Assessing board functioning, accountability structures, autonomy, and coordination mechanisms (Tricker, 2019).
3. Business model and value-architecture diagnostics
Analyzing revenue logic, resource orchestration, partnerships, and scalability factors (Zott & Amit, 2020).
4. Operational capability and performance readiness

Evaluating talent, systems, digital maturity, process efficiency, and risk management integration (Grant, 2022; COSO, 2023).

These elements reflect a multi-layered view of what drives value creation in public entities, positioning digital strategic auditing as a meta-governance tool rather than a traditional assurance instrument.

2.1.2 Digital Tools and Technologies Supporting Strategic Auditing

Contemporary strategic auditing increasingly relies on advanced digital tools that enhance diagnostic depth and predictive accuracy:

- AI-driven analytics for anomaly detection, predictive modeling, and scenario simulation (PwC, 2022).
- Digital twins that model asset performance, operational flows, and revenue pathways (McKinsey, 2023).
- Blockchain-based traceability for governance transparency and asset ownership integrity (Cohen & Karatzimas, 2021).
- Integrated risk dashboards aligned with ERM frameworks (COSO, 2023).
- Natural-language processing (NLP) engines to extract insights from unstructured regulatory, strategic, and operational documents (Arena & Jeppesen, 2022).

These technologies expand the scope of auditing beyond compliance and accuracy, enabling auditors and policymakers to identify hidden value gaps, governance failures, institutional bottlenecks, and strategic misalignments.

2.1.3 Applications of Digital Strategic Auditing in the Public Sector

Across the world, governments increasingly apply digital strategic auditing to:

- Diagnose underutilized public assets and detect structural inefficiencies (World Bank, 2023).
- Evaluate sovereign wealth fund performance against global governance benchmarks (IFSWF, 2022).
- Enhance transparency and accountability in state-owned enterprises (OECD, 2022).
- Improve strategic planning cycles and resource allocation effectiveness (IMF, 2020).
- Support long-term infrastructure investment decisions using digital simulation models (NBIM, 2021).

Recent studies show that digital auditing enhances performance especially in environments characterized by institutional fragmentation, opaque governance, and weak capability systems—conditions common to many emerging economies (Scott, 2020; Haynes et al., 2020).

In Egypt’s context, digital strategic auditing provides a powerful mechanism to assess:

- alignment of public asset portfolios with national

priorities,

- weaknesses in business models and value capture mechanisms,
- gaps in sovereign wealth fund governance,
- capability bottlenecks inside public entities,
- and institutional rigidities constraining asset monetization.

Thus, this section demonstrates that digital strategic auditing is not merely a modernized audit technique but a strategic governance infrastructure capable of enabling value creation and performance transformation in national asset systems.

2.2 Governance, Strategic Alignment, and Public Value Creation

Governance has re-emerged as a central explanatory mechanism for understanding why some public entities succeed in generating value from public assets while others stagnate or destroy value. Modern governance literature emphasizes that the effectiveness of asset systems—whether state-owned enterprises, land portfolios, or sovereign funds—depends on the coherence, independence, and professionalization of governance structures (OECD, 2015; Tricker, 2019). Weak decision rights, fragmented accountability, political interference, and capability misalignment represent significant obstacles to performance and value realization (Kaufmann et al., 2010; IMF, 2022).

Strategic alignment is an equally critical determinant of value creation. Public asset institutions often operate under multiple and sometimes conflicting mandates: fiscal stabilization, asset preservation, investment maximization, and economic-development functions (Clark & Monk, 2017). When mandates are not clearly prioritized and translated into operational systems, organizations fail to orchestrate capabilities or allocate resources in ways that create sustainable value (Grant, 2022; Teece, 2021). This misalignment is especially acute in emerging economies where institutional fragmentation, outdated asset registries, and weak coordination mechanisms impede strategic coherence (World Bank, 2018; Scott, 2020).

2.2.1 Governance Theories in the Context of Public Assets

Several theoretical streams provide strong explanatory foundations for how governance influences public asset value:

1) Institutional Theory

Institutional forces—regulative, normative, and cognitive—shape how public organizations design governance systems (Scott, 2020). Misaligned institutions generate opacity, delays, and weak accountability, preventing efficient asset utilization (Bickenbach & Liu, 2018).

2) Stewardship Theory

Contrary to agency theory, stewardship theory argues

that public managers are motivated by mission-driven objectives. Effective governance builds trust, empowers decision rights, and enhances motivation to create long-term value (Davis et al., 2021).

3) Public Value Theory

Moore’s (1995; 2019) framework asserts that value creation in the public sector requires:

- a clear strategic value proposition,
- operational capability systems,
- and an enabling authorizing environment.

Ineffective governance disrupts all three components, resulting in asset underutilization or value leakage.

2.2.2 Strategic Alignment as a Mechanism of Public Value Creation

Strategic alignment refers to the coherence between:

- mission → strategy → operations → asset deployment,
- governance structures → decision rights → investment priorities,
- performance systems → incentives → accountability frameworks.

Research shows that alignment failures—typically arising from poor governance—produce major inefficiencies in public assets, including unused land, mispriced leases, loss-making commercial entities, and stalled investment pipelines

(McKinsey, 2023; World Bank, 2023). In sovereign wealth funds, misalignment between mandate and investment strategy is a key determinant of underperformance (IFSWF, 2022; Bagnall & Truman, 2020).

Strategic alignment is thus not an operational exercise—it is a governance function involving systems of coordination, capabilities, risk management integration, and value capture modeling (Teece, 2021; Zott & Amit, 2020).

2.2.3 Drivers of Public Value Creation

Across the literature, five core drivers consistently influence value realization in public asset systems:

1. Clarity of mandate and investment logic
2. Governance independence and capability depth
3. Data integrity and digital infrastructure
4. Strategic asset segmentation and business model design
5. Risk management integration within decision-making

Countries that achieve high-value performance—such as Singapore, Norway, the UAE—excel in these five drivers (NBIM, 2021; Temasek, 2022; ADIA, 2022). Conversely, countries lacking these drivers accumulate large portfolios of underutilized assets, inefficient public enterprises, and stalled development projects (World Bank, 2018; IMF, 2020).

Table 1. Presents Governance & Strategic Alignment Factors Influencing

Table 1. Governance & Strategic Alignment Factors Influencing Public Value Creation

Dimension	Key Components	Impact on Value Creation	Key References
Governance Structures	Board composition, autonomy, decision rights	Determines strategic direction and investment rigor	OECD (2015), Tricker (2019)
Strategic Alignment	Mission–strategy–operations coherence	Enhances asset utilization and reduces leakage	Grant (2022), Teece (2021)
Capability Systems	Human capital, digital maturity, operational readiness	Drives efficiency and performance	McKinsey (2023), World Bank (2023)
Accountability Systems	Performance indicators, oversight, reporting	Increases transparency and reduces inefficiency	Kaufmann et al. (2010), IMF (2022)
Risk Governance	ERM integration, scenario models	Protects value and improves decision quality	COSO (2023), NBIM (2021)

2.3 Challenges of State-Owned Asset Utilization in Emerging Economies

Despite extensive reforms and modernization initiatives, many emerging economies continue to face structural obstacles in capturing the full economic and fiscal value of state-owned assets. Research consistently shows that public assets—especially land, buildings, infrastructure, and state-owned enterprises—often represent the largest single component of national wealth, yet governments capture only a fraction of their potential value (World Bank, 2018; McKinsey, 2023). These challenges arise due to systemic issues in governance, institutional fragmentation, capability gaps, and informational asymmetries.

One of the most persistent challenges is the absence of

unified asset registries and integrated inventory systems (IMF, 2020). Fragmented ownership structures—spread across ministries, agencies, local governments, and public enterprises—create uncertainty around asset boundaries, usage rights, valuation, and performance accountability (OECD, 2021). This leads to chronic underutilization, idle land, dilapidated properties, and suboptimal commercial exploitation (Bel & Warner, 2015).

A second major challenge is weak commercial governance and outdated business models. Many public entities lack the strategic capabilities to redesign business models, price assets efficiently, or develop revenue-generating structures that align with market conditions (Zott & Amit, 2010; Grant,

2022). As a result, they operate with loss-making or non-performing assets that drain public finances rather than generate value (Bovaird & Löffler, 2016).

Thirdly, institutional rigidities and regulatory bottlenecks—such as slow permitting, unclear land classifications, and overlapping mandates—delay or block asset development (Scott, 2020; Bickenbach & Liu, 2018). These rigidities discourage private-sector partnerships and hinder the deployment of innovative capital structures.

Finally, political interference in operational decisions of state-owned enterprises and public investment vehicles significantly undermines performance. Comparative studies highlight that the depoliticization of asset decisions is a key differentiator between high-performing and low-performing countries (Clark & Monk, 2017; IMF, 2022; OECD, 2022).

Together, these challenges constitute a complex ecosystem of constraints that require systemic, not incremental, solutions—making digital strategic auditing a timely and necessary governance innovation.

2.4 Sovereign Wealth Funds: Global Evidence and Performance Determinants

Sovereign wealth funds (SWFs) have become critical vehicles for national asset management, economic diversification, fiscal stabilization, and strategic investment. However, their performance varies widely across countries due to differences in governance structures, mandates, investment frameworks, and institutional environments (Bagnall & Truman, 2020; IFSWF, 2022).

The most successful funds—including Norway’s NBIM, Singapore’s Temasek, and Abu Dhabi’s ADIA—share three core governance attributes:

- 1. Clear, depoliticized mandates with a consistent long-term investment horizon (NBIM, 2021;

ADIA, 2022).

- 2. Professionalized investment capabilities with strong global expertise and risk governance (Temasek, 2022).
- 3. Radical transparency and reporting discipline, enabling public trust and international credibility (IFSWF, 2022).

In contrast, underperforming funds exhibit mandate ambiguity, lack of investment strategy coherence, weak portfolio monitoring, and limited accountability mechanisms (World Bank, 2023; IMF, 2022).

Furthermore, SWF performance is strongly influenced by:

- risk appetite calibration,
- internal capability systems,
- portfolio diversification,
- governance independence,
- market intelligence systems,
- digital infrastructure for asset monitoring,
- and integration with national economic strategies

(Clark & Monk, 2017; KPMG, 2023). Comparative evidence shows that SWFs in emerging economies often struggle with:

- inconsistent mandates,
- short-term political pressures,
- insufficient talent pools,
- limited autonomy,
- and fragmented asset pipelines.

These weaknesses directly affect their ability to generate value from underutilized public assets and to play a transformative economic role.

Table 2. Presents Global Challenges in State-Owned Asset Utilization and Sovereign Fund Performance

Table 2. Global Challenges in State-Owned Asset Utilization and Sovereign Fund Performance

Challenge Category	Description	Impact	Countries Most Affected	Key References
Fragmented Asset Ownership	Lack of integrated registries and inventories	Idle assets; lost revenues	Egypt, India, Indonesia	IMF (2020); WB (2018)
Weak Governance Structures	Political interference; unclear mandates	Low returns; poor accountability	MENA, Africa	OECD (2021); IMF (2022)
Outdated Business Models	Poor pricing; inefficient commercialization	Value leakage; recurring losses	Many SOEs globally	Zott & Amit (2010); Grant (2022)
Regulatory Bottlenecks	Overlaps; slow procedures	Development delays	Emerging economies	Scott (2020); Bickenbach & Liu (2018)
SWF Governance Weaknesses	Limited autonomy; weak oversight	Underperformance	Many developing funds	Bagnall & Truman (2020); KPMG (2023)
Low Capability Depth	Talent gaps; weak risk systems	High volatility; low resilience	Multiple regions	Clark & Monk (2017); IFSWF (2022)

2.5 From Compliance Auditing to Strategic Value Creation

Contemporary auditing has progressively evolved beyond its traditional role as a compliance-oriented verification mechanism toward a strategic governance function that actively contributes to value creation and institutional trust. Recent accounting and auditing scholarship conceptualizes auditing not merely as a control device designed to detect non-compliance, but as an integral governance process that enhances decision quality, strengthens accountability, and supports organizational sustainability (Power, 2021). This conceptual shift reflects the growing demand from stakeholders for audit outputs that extend beyond assurance on financial statements to include insights on risk management, performance evaluation, and the alignment of organizational activities with long-term strategic objectives (Hay et al., 2021).

Within this emerging perspective, audit value is increasingly understood as deriving from the auditor's capacity to reinforce governance structures and to foster trust in complex institutional environments, particularly within emerging economies characterized by regulatory fragmentation and heightened uncertainty (Free & Murphy, 2022). Auditing, in this sense, operates as a strategic accountability mechanism that shapes organizational behavior and links performance outcomes to broader public and stakeholder value, rather than serving solely as an ex post monitoring function (Gendron & Rodrigue, 2021). Accordingly, recent literature repositions auditing as a value-creating activity embedded within governance systems, contributing to transparency, strategic learning, and informed decision-making, instead of being confined to error detection or procedural compliance (Quick & Schmidt, 2023).

Building on this conceptual transition, the present study adopts a strategic auditing perspective to examine how auditing practices can contribute to value creation through enhanced governance, accountability, and decision-support functions. By integrating traditional assurance roles with strategic and governance-oriented dimensions, this research seeks to advance both theoretical understanding and practical insights into the evolving role of auditing in contemporary organizational and public-sector contexts.

2.6 Theoretical Framework: Strategic Auditing, Governance, and Value Creation

The theoretical foundation of this study is anchored in the evolving conceptualization of auditing as a strategic governance mechanism rather than a purely compliance-driven control function. Traditional auditing theories have largely emphasized monitoring, verification, and agency-cost reduction; however, recent developments in accounting and governance literature extend this view by positioning auditing as an active contributor to organizational strategy,

accountability, and value creation. Within this broader theoretical perspective, auditing is understood as a governance technology that shapes organizational behavior, enhances the credibility of information flows, and supports strategic decision-making across complex institutional settings (Andon et al., 2023; Power, 2021).

This study draws on an integrative theoretical lens that combines insights from governance theory, accountability theory, and public value theory to explain how auditing can generate value beyond assurance outcomes. From a governance perspective, auditing reinforces oversight structures and aligns managerial actions with stakeholder interests by improving transparency and control effectiveness (Free & Murphy, 2022). From an accountability standpoint, auditing functions as a mechanism through which organizations demonstrate responsibility for performance, resource utilization, and strategic outcomes to diverse stakeholders (Gendron & Rodrigue, 2021). In parallel, public value theory highlights the role of auditing in supporting outcomes that extend beyond organizational efficiency to encompass broader societal and institutional value, particularly in public-sector and emerging-economy contexts (Bracci et al., 2021).

By integrating these complementary theoretical streams, the framework adopted in this study conceptualizes strategic auditing as a multidimensional process through which assurance, governance, and decision-support functions interact to create value. This approach provides a coherent theoretical basis for examining the mechanisms through which auditing contributes to enhanced governance quality, informed strategic choices, and sustainable value creation, thereby setting the stage for the empirical analysis that follows.

2.7 Auditing, Public Value, and Emerging Economies

Recent developments in accounting and auditing research increasingly emphasize the role of auditing in the creation of public value, particularly within the context of emerging economies. Moving beyond narrow efficiency and compliance objectives, public value theory reframes auditing as a mechanism through which governments and public-sector organizations enhance transparency, legitimacy, and societal outcomes. In this perspective, auditing contributes not only to financial discipline but also to broader governance goals, including trust-building, accountability, and the effective stewardship of public resources (Bracci et al., 2021).

Within public-sector contexts, auditing plays a critical role in supporting institutional transformation and governance reform. Prior studies highlight that audit functions increasingly serve as instruments for improving decision-making quality and aligning organizational behavior with public objectives, especially during periods of fiscal stress and administrative reform (Steccolini et al., 2021). This expanded role is particularly salient in emerging

economies, where audit institutions are often expected to compensate for weaker regulatory enforcement, fragmented governance structures, and limited transparency mechanisms (Ferry et al., 2022).

The relevance of auditing to public value creation is further amplified in state-owned enterprises and hybrid organizations, which occupy an intermediate space between public accountability and market-oriented performance. Research demonstrates that effective auditing and accountability arrangements in such entities are essential for mitigating agency problems, enhancing governance capacity, and safeguarding public interests (van Helden et al., 2021). In times of crisis, these challenges become even more pronounced, reinforcing the need for robust audit systems capable of supporting resilience, credibility, and adaptive governance (Grossi & Thomasson, 2022).

From an institutional perspective, audit reforms in emerging economies are frequently shaped by external pressures, including international organizations, donor agencies, and global governance norms. While such reforms aim to strengthen accountability and financial governance, their effectiveness depends on local institutional conditions and the extent to which auditing practices are embedded within broader governance frameworks (Lino et al., 2022). Accordingly, international policy bodies emphasize the strategic role of supreme audit institutions in promoting public value through enhanced oversight, transparency, and performance-oriented accountability (OECD, 2021; World Bank, 2022).

Collectively, this body of literature underscores that auditing in emerging economies should be understood as a multidimensional governance mechanism that contributes to public value creation rather than a narrowly defined compliance tool. By integrating accountability, governance, and institutional perspectives, this study builds on prior research to examine how auditing can support public value objectives in contexts characterized by institutional complexity and ongoing reform, thereby extending existing theoretical and empirical insights.

2.8 Research Gaps and Opportunities for Contribution

The preceding sections highlight major conceptual, institutional, and operational challenges limiting value creation in state-owned assets and sovereign wealth funds—particularly in emerging economies. Despite the proliferation of literature on public governance, strategic alignment, asset management, and sovereign fund performance, several significant research gaps remain unaddressed, offering a strong justification for the proposed study.

2.8.1 Gap 1: Absence of an Integrated Strategic Auditing Model for Public Asset Value Creation Despite extensive scholarship on public sector auditing and performance evaluation, the literature lacks an integrated

strategic auditing framework specifically designed to diagnose value drivers within public asset systems (Hay & Cordery, 2020; Malsch & Salterio, 2022). Existing models focus

heavily on compliance, financial accuracy, or program performance, without tackling:

- strategic coherence,
- business model viability,
- capability alignment,
- and governance maturity.

No study has yet proposed a unified digital strategic auditing model (SAVC) capable of identifying, predicting, and quantifying the determinants of value creation in public assets.

This represents a major theoretical gap and positions the current research as a pioneering empirical contribution.

2.8.2 Gap 2: Fragmented Evidence on Sovereign Funds in Emerging Economies

While substantial research exists on successful SWFs in advanced economies (e.g., Norway, Singapore), far less is known about SWFs operating in institutionally constrained environments (Bagnall & Truman, 2020). The literature underscores common weaknesses—ambiguous mandates, misalignment, governance interference—but lacks a comparative empirical model linking SWF governance, capabilities, digital maturity, and asset monetization outcomes (IFSWF, 2022; KPMG, 2023).

Emerging economies such as Egypt require context-sensitive models that account for:

- institutional fragmentation,
- capability gaps,
- regulatory bottlenecks,
- and political-economy dynamics.

This creates a significant gap for theory-building and policy innovation.

2.8.3 Gap 3: Weak Integration of Digital Tools in Public Sector Value Analysis

Although multiple studies highlight digital transformation in the public sector, few examine how digital tools (AI, digital twins, analytics) can be operationalized within auditing frameworks to diagnose value creation constraints (PwC, 2022; McKinsey, 2023). Existing research treats digital tools as enablers rather than core diagnostic components.

A major research opportunity lies in linking:

- digital maturity,
- data governance,
- analytics capabilities,
- and strategic auditing outcomes.

2.8.4 Gap 4: Limited Use of Mixed-Methods and Comparative Approaches

Most studies rely on:

- descriptive analyses,
- case studies,
- or conceptual arguments.

Few employ mixed-methods designs that combine:

- large-scale quantitative modeling (SEM, CFA),
- qualitative evidence from cases,
- and comparative benchmarking across countries

(Creswell & Plano Clark, 2020; Yin, 2022). The current research will fill this gap by integrating:

- a quantitative survey,
- comparative case analyses from leading global SWFs,
- and a strategic auditing model calibrated to the Egyptian context.

2.8.5 Gap 5: Absence of a Public Value-Based Assessment for Underutilized Assets

Public asset literature seldom applies public value theory to diagnose underutilization, business model gaps, or capability misalignments (Moore, 2019; O'Flynn, 2021). No existing study creates a multi-dimensional value-creation assessment that incorporates:

- institutional theory,
- RBV (resources and capabilities),
- public value theory,
- business model theory,
- and governance theory.

This creates a substantive opportunity to design a pioneering theoretical model.

3 – STRATEGIC AUDITING FOR VALUE CREATION AND HYPOTHESES DEVELOPMENT

3.1 Concept of Strategic Auditing for Value Creation (SAVC)

Strategic Auditing for Value Creation (SAVC) represents a new evolutionary stage in the auditing discipline, expanding its scope from retrospective verification and compliance assessment to the forward-looking evaluation of strategic coherence, business model robustness, governance quality, and value-creation potential. Unlike traditional financial, compliance, or performance audits—which primarily assess accuracy, adherence, or efficiency—SAVC examines whether an organization's strategic choices, capabilities, and institutional environment are aligned to generate sustainable value (Arena & Azzone, 2020; Power, 2021).

Strategic auditing therefore evaluates:

1. Strategic alignment: whether the asset's objectives align with national priorities. Governance quality the core premise of SAVC is that assets do not create value by themselves; value emerges only when strategies, governance, capabilities, and risk systems are properly aligned and executed (Moore, 2019; OECD, 2021). In public-sector contexts, especially in emerging economies, underutilized

assets often fail not due to financial mismanagement but due to weak strategy design, fragmented governance structures, absence of viable business models, and institutional constraints (World Bank, 2023; IMF, 2022).

2. clarity of decision rights, board oversight, accountability mechanisms.
3. Business model strength: logic of how the asset creates, delivers, and captures value.
4. Capability and operational readiness: human, institutional, and technological capacity.
5. Risk maturity: the organization's ability to identify, assess, and mitigate risks.
6. Financial viability: the sustainability of cash flows and investment potential.
7. Institutional environment: regulatory constraints, administrative barriers, and political incentives.
8. Value-creation outcomes: financial, economic, strategic, and societal impact.

Recent international reports emphasize that traditional audits fail to detect value-creation gaps because they focus on transactions rather than strategic systems (PwC, 2022; IFSWF, 2022). SAVC fills this gap by functioning as a strategic diagnostic tool capable of identifying why value is not being created, where misalignments exist, and what reforms are required to unlock asset potential.

In the context of underutilized public assets and sovereign wealth funds (SWFs), SAVC is particularly relevant because the core challenges relate not to misstatement but to strategic underperformance (Clark & Monk, 2017; NBIM, 2021).

3.2 Components of the Proposed SAVC Framework

Based on the literature, global practices, and identified value-creation gaps, the proposed framework consists of eight interrelated components, each representing a core driver of strategic value creation. As shown in table 3.

Component 1 – Strategic Alignment

Assesses coherence between asset-level strategies, sovereign fund strategy, and national priorities (OECD, 2021).

Component 2 – Governance Quality

Evaluates governance structures, board effectiveness, transparency, and decision-rights allocation (Tricker, 2019).

Component 3 – Business Model Robustness

Examines economic logic, revenue streams, partner networks, and operational design (Zott & Amit, 2020).

Component 4 – Capability & Operational Readiness

Assesses institutional, human, and technical capabilities required to execute the strategy (Bamey, 1991).

Component 5 – Risk Management Maturity

Evaluates exposure to strategic, operational, and financial risks and the effectiveness of mitigation systems (COSO, 2023).

“Reframing Strategic Auditing as a Public Value Creation Mechanism: Evidence from Underutilized Public Assets and Sovereign Fund Performance in Egypt”

Component 6 – Financial Viability

Assesses cash-flow sustainability, return potential, and investment readiness.

Component 7 – Institutional Environment

Examines regulatory, administrative, and policy constraints

that affect asset performance (Scott, 2020).

Component 8 – Value-Creation Outcomes

Evaluates whether the asset generates measurable financial, economic, and public-value benefits.

Table 3. Components of the Strategic Auditing for Value Creation (SAVC) Framework

No.	Component	Description
1	Strategic Alignment	Consistency with national and sector strategies
2	Governance Quality	Board structures, decision rights, accountability
3	Business Model Strength	Logic of value creation and operational feasibility
4	Operational Readiness	Human, institutional, and technical capabilities
5	Risk Management	Identification, assessment, and mitigation of risks
6	Financial Viability	Cash-flow sustainability and returns
7	Institutional Environment	Regulatory and administrative context
8	Value-Creation Outcomes	Financial, economic, strategic, and societal value

Table 4.. Presents Interrelationships Among SAVC Components

Table 4. Interrelationships Among SAVC Components

Relationship	Type	Effect
Alignment → Governance	Integrative	Enhances clarity of decisions
Business Model → Financial Viability	Causal	Determines ability to generate returns
Readiness → Execution	Enabling	Enhances operational performance
Risk Maturity → Value Creation	Protective	Safeguards value pathways
Institutional Context → Governance	Regulatory	Shapes effectiveness of oversight
Governance → Value Outcomes	Direct	Core determinant of public-value creation

3.3 Conceptual Model of Strategic Value Creation

The conceptual model integrates the eight SAVC components into a unified value-creation pathway: Strategic Alignment + Governance Quality + Business Model Strength + Operational Readiness +

Risk Maturity → Financial & Economic Performance → Value Creation Outcomes

The model treats value creation as a multi-stage causal process, where:

- Inputs: capabilities, institutional factors, resources, business model.
- Processes: governance, risk systems, strategy execution.
- Outputs: asset performance indicators.
- Outcomes: public-value creation and sovereign fund enhancement.

3.4 Hypotheses Development

Based on the literature, theoretical foundations, and the SAVC conceptual model, six hypotheses are developed to capture the causal relationships between the major components of strategic auditing and value creation in underutilized public assets and sovereign wealth fund performance.

These hypotheses reflect the assumption that value creation is not produced by isolated factors but by the

integration of strategy, governance, business models, capabilities, and risk management (Arena & Azzone, 2020; OECD, 2021).as shown in table 5.

H1: Strategic alignment positively influences value creation in underutilized public assets.

Strategic alignment ensures coherence between asset-level objectives and broader national priorities, enabling focused investment, resource allocation, and risk mitigation (Moore, 2019). Misalignment leads to value gaps and underperformance.

H2: Governance quality has a positive and significant effect on value-creation outcomes.

Governance determines decision rights, transparency, accountability, and oversight mechanisms—all critical for operationalizing strategies and preventing inefficiencies (Tricker, 2019; OECD, 2021). Weak governance fragments responsibilities and delays value realization.

H3: Business model robustness positively affects the financial and operational performance of public assets. Strong business models define the logic through which assets create value, including revenue streams, capabilities, partnerships, and operational design (Zott & Amit, 2020). Underutilized assets often lack viable business models, leading to poor performance.

H4: Operational readiness mediates the relationship

between strategy and value creation.

Capabilities—human, institutional, and technological—are necessary to translate strategy into performance (Barney, 1991). Even strong strategies fail without adequate capacity.

H5: Risk management maturity positively moderates the impact of governance and strategy on value creation. Effective risk systems prevent strategic drift, financial losses, and operational bottlenecks, and ensure resilience under uncertainty (COSO, 2023). Weak risk controls

contribute to asset underutilization and sovereign fund underperformance.

H6: Institutional environment significantly influences governance quality and strategic execution.

Institutional constraints—regulatory burdens, administrative fragmentation, long approval cycles—restrict asset performance (Scott, 2020). A supportive institutional environment enhances governance and strategy execution.

Table 5. Linking Hypotheses to the Literature

Hypothesis	Supporting Literature	Theoretical Basis
H1	Moore (2019); OECD (2021)	Public Value Theory
H2	Tricker (2019); OECD (2021)	Strategic Governance Theory
H3	Zott & Amit (2020)	Business Model Theory
H4	Barney (1991)	Resource-Based View (RBV)
H5	COSO (2023)	Risk Management & Resilience Theory
H6	Scott (2020)	Institutional Theory

Table 6. Links Hypotheses to Research Variables

Table 6. Linking Hypotheses to Research Variables

Hypothesis	Independent Variable	Dependent Variable	Mediator/Moderator
H1	Strategic Alignment	Value Creation	—
H2	Governance Quality	Value Outcomes	—
H3	Business Model Strength	Asset Performance	—
H4	Operational Readiness	Value Creation	Mediator
H5	Risk Management	Value Creation	Moderator
H6	Institutional Environment	Governance Quality	—

Summary of Hypotheses Section

The six hypotheses construct a holistic value-creation mechanism in which:

- Strategy (H1), governance (H2), and business model (H3) form the primary drivers,
- Capabilities (H4) serve as the enabler,
- Risk maturity (H5) serves as the protector,
- Institutional environment (H6) acts as the contextual force shaping performance.

These hypotheses form the empirical backbone of the study and guide the quantitative and comparative analysis conducted in Chapters 4 and 5.

3.5 Digitalization, Audit Analytics, and Strategic Decision Support

The rapid digitalization of organizational processes has fundamentally reshaped the role of auditing, expanding its function from periodic assurance toward continuous, analytics-driven strategic decision support. Recent literature highlights that audit analytics and digital technologies enable auditors to move beyond traditional sampling-based approaches toward comprehensive, real-time assessments of risk, performance, and governance effectiveness (Vasarhelyi et al., 2021). By leveraging advanced data analytics, auditors can enhance judgment quality, provide forward-looking insights, and support strategic management decisions, thereby reinforcing the

value-creation role of auditing within modern governance systems (Appelbaum et al., 2021).

In this context, continuous auditing frameworks have emerged as a critical mechanism for integrating assurance with strategic oversight, particularly in complex and dynamic environments. Prior studies demonstrate that continuous auditing and monitoring systems improve the timeliness and relevance of audit outputs, allowing organizations to respond more effectively to emerging risks and operational deviations (Cao et al., 2022; Alles & Gray, 2021). Such developments position auditing as an integral component of organizational control architectures, closely aligned with strategic planning and performance management processes.

Digital technologies also reshape accountability relationships by altering how information is generated, validated, and communicated within organizations. Research emphasizes that digital accountability infrastructures enhance transparency and traceability, thereby strengthening governance arrangements and supporting more informed stakeholder engagement (Moll & Yigitbasioglu, 2022; Arnaboldi et al., 2022). From a governance perspective, digital transformation reinforces the strategic relevance of auditing by embedding assurance mechanisms within broader data-driven decision-making systems (Lombardi et al., 2021).

Furthermore, emerging technologies such as blockchain and advanced process automation are increasingly discussed as catalysts for audit transformation. These technologies offer the potential to reengineer audit processes, enhance data integrity, and reduce information asymmetries, thereby enabling auditors to contribute more directly to strategic governance and value creation (Kokina et al., 2021; Rozario & Thomas, 2022). Recent studies further argue that data-driven governance models elevate auditing from a compliance-focused activity to a strategic function that supports organizational learning and adaptive decision-making, particularly in environments characterized by institutional complexity (Schmitz & Leoni, 2023).

Collectively, this stream of literature underscores that digitalization and audit analytics constitute a critical contextual foundation for the hypotheses developed in this study. By integrating digital capabilities with governance and accountability objectives, auditing is increasingly positioned as a strategic decision-support mechanism rather than a purely ex post control function, thereby motivating the empirical hypotheses examined in the following section.

3.6 Alignment of the SAVC Framework with the Overall Research Objective

The core objective of this research is to develop and empirically validate a Strategic Auditing for Value Creation (SAVC) framework capable of improving the utilization of underutilized public assets and enhancing sovereign wealth fund (SWF) performance in Egypt. The components and hypotheses developed in this chapter are fully aligned with this overarching goal.

First, the SAVC framework directly addresses the strategic misalignments that numerous studies recognize as the primary cause of value loss in public assets (OECD, 2021; World Bank, 2023). By incorporating strategic alignment as a central dimension (H1), the framework ensures that asset strategies are evaluated based on their consistency with national priorities and SWF objectives.

Second, the inclusion of governance quality (H2) responds to persistent governance fragmentation that undermines performance in public asset systems (Tricker, 2019). Poor governance leads to

unclear accountability, inconsistent decision-making, and weak oversight—conditions that strategic auditing is designed to expose and reform. Third, business model robustness (H3) is a critical missing element in Egyptian public assets. Many assets lack defined revenue logic or operational structures. Incorporating business model auditing strengthens the overall research objective by shifting focus from passive asset holding to active value-generation potential.

Fourth, the mediating role of operational readiness (H4) and the moderating role of risk management maturity (H5) operationalize the capability and resilience dimensions essential for executing strategy—a gap heavily emphasized in international assessments of developing economies (IMF, 2022).

Finally, including institutional environment (H6) ensures the SAVC framework accounts for policy, regulatory, and administrative constraints that shape performance, especially in emerging market contexts with complex bureaucracies (Scott, 2020).

Collectively, these components establish a comprehensive, multi-level audit architecture that aligns directly with the research’s overarching aim:

to transform auditing from a retrospective inspection tool into a strategic mechanism for value creation in public assets and sovereign funds.

3.7 Chapter Synthesis

Chapter 3 developed the conceptual foundation and analytical mechanisms required to operationalize the Strategic Auditing for Value Creation (SAVC) framework. Building on the gaps identified in Chapter 2, this chapter contributes three major advancements to the literature and to the empirical trajectory of the study.

1. A New Conceptualization of Strategic Auditing

The chapter redefines strategic auditing as a value-oriented discipline capable of diagnosing strategic, governance, operational, and institutional bottlenecks that suppress value creation in public assets. This redefinition extends auditing beyond compliance and performance verification toward strategic intervention (Arena & Azzone, 2020; Power, 2021).

2. A Comprehensive Eight-Component Framework

By introducing the eight interconnected components—strategic alignment, governance quality, business model strength, operational readiness, risk management maturity, financial viability, institutional environment, and value-creation outcomes—the chapter establishes a holistic audit system capable of analyzing both asset-level and sovereign fund-level performance.

The interrelationships mapped in Tables 1 and 2 highlight how value creation emerges from dynamic interactions rather than isolated variables.

3. A Set of Six Empirically Testable Hypotheses

The hypotheses developed—H1 through H6—form the empirical backbone of the research and articulate clear, causal pathways by which strategic auditing influences value creation.

These hypotheses will guide:

- the survey instrument in Chapter 4,
- the comparative analysis in Chapter 5,
- and the statistical validation in Chapter 6.

4 – RESEARCH METHODOLOGY AND COMPARATIVE ANALYSIS

4.1 Research Design

This study adopts a mixed-method research design integrating quantitative, qualitative, and comparative approaches to examine how the Strategic Auditing for Value Creation (SAVC) framework can improve the utilization of underutilized public assets and enhance sovereign wealth fund (SWF) performance in Egypt. The integration of multiple methods allows for a comprehensive assessment of strategic alignment, governance quality, business model robustness, institutional barriers, and value-creation outcomes (Creswell & Plano Clark, 2020; Bryman, 2021).

The mixed-method approach is particularly suitable for this research for three reasons:

1. Complexity of Public Asset Systems:
Underutilized assets are affected by strategic, operational, institutional, and governance factors. A single method cannot capture this complexity (OECD, 2021).
2. Need for Empirical Validation of SAVC:
The hypotheses require a robust quantitative assessment using survey data, supported by case-study evidence (Hair et al., 2022).
3. Comparative Nature of Value Creation:
Comparative analysis between different asset types, ministries, or fund units provides deeper insights into variation in performance (World Bank, 2023).

Thus, the research design combines:

- Quantitative analysis: hypothesis testing through structured surveys.
- Qualitative analysis: interviews and document reviews.
- Comparative case studies: cross-asset and cross-unit comparisons.

This triangulation enhances validity and supports a multidimensional interpretation of results (Flick, 2020; Yin, 2022).

4.2 Sampling Strategy and Target Population

Table 7. Summarizes Summary of Sampling Framework

Table 7.: Summary of Sampling Framework

Item	Description
Target Population	Underutilized public assets + SWF units
Sampling Technique	Stratified purposive sampling
Sample Size Required	≥ 120 (Hair et al., 2022 rules)

4.2.1 Population Definition

The population covers two major segments:

1. Public assets (underutilized assets) managed by ministries, agencies, or economic authorities
2. Units and affiliated companies of Egypt’s sovereign wealth fund (TSFE)

This dual population ensures the methodology captures both asset-level and fund-level dynamics.

4.2.2 Sampling Method

A stratified purposive sampling technique is adopted (Etikan, 2020):

- Stratum 1: idle/underutilized assets
- Stratum 2: partially utilized assets
- Stratum 3: fully utilized but low-return assets
- Stratum 4: sovereign fund operating units and subsidiaries

This ensures representation across varying degrees of asset readiness, governance structures, and business model maturity.

4.2.3 Sample Size Determination

Using Hair et al. (2022) SEM/Regression rules:

- Minimum sample size = 15 responses per variable
- Variables = 8 SAVC dimensions
- Required minimum sample = 120 respondents

Expected distribution:

- 70 participants from public entities (asset managers, directors, auditors)
- 50 participants from sovereign fund units

4.2.4 Response Rate

Based on prior studies in public sector research (KPMG, 2023; PwC, 2022), expected response rates range from 35%–55%.

This study aims for:

- Distributed surveys: 250
- Expected responses: 130–140
- Expected valid responses: ≥120 (sufficient for hypothesis testing)

4.2.5 Sample Characteristics

Demographic variables include:

- Years of experience
- Position level
- Asset category
- Type of entity (ministry, authority, fund unit)
- Governance structure
- Level of operational readiness

These characteristics will be used for descriptive and comparative analysis in Chapter 5.

Survey Distributed	250
Expected Response Rate	35%–55%
Expected Valid Responses	120–140
Units of Analysis	Assets + Fund Units
Respondent Categories	Managers, auditors, directors, analysts

4.3 Data Collection Methods (Will follow in Dispatch 2)

Creswell & Plano Clark (2020); Bryman (2021); OECD (2021); Hair et al. (2022); Flick (2020); Yin (2022); Etikan (2020).

4.3 Data Collection Methods

Data collection follows a triangulated, multi-source approach to ensure rigor, enhance construct validity, and support robust hypothesis testing. This approach integrates survey instruments, semi-structured interviews, and documentary analysis, offering both breadth and depth in understanding the mechanisms underlying value creation in public assets and SWFs (Yin, 2022; Flick, 2020).

4.3.1 Survey Instrument

A structured questionnaire was designed to measure the eight SAVC dimensions:

1. Strategic Alignment
2. Governance Quality
3. Business Model Robustness
4. Operational Readiness
5. Risk Management Maturity
6. Financial Viability
7. Institutional Environment
8. Value Creation Outcomes

The survey uses a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Items were adapted from validated measurement scales in public value, governance, business model, and strategic auditing literature (Moore, 2019; Zott & Amit, 2020; OECD, 2021; COSO, 2023).

A pilot test (n=20) ensures clarity, reliability, and measurement validity before final deployment.

4.3.2 Semi-structured Interviews

Interviews complement survey findings by gathering qualitative insights from:

- senior officials in ministries,
- asset managers,
- sovereign fund executives,
- auditors from central authorities. The interviews explore:
- hidden governance constraints,
- strategic misalignments,
- capability gaps,
- institutional bottlenecks.

This qualitative layer enriches comparative analysis and supports interpretation of statistical outcomes (Bryman, 2021).

4.3.3 Document Review

Documentary evidence is collected from:

- sovereign fund annual reports,
- national asset registries,
- government performance reviews,
- regulatory frameworks,
- investment partnership reports.

Document review strengthens triangulation by validating reported data and uncovering operational realities often not captured in surveys (OECD, 2021).

4.4 Comparative Case Study Approach

To understand differences in value creation across asset categories and sovereign fund units, the study applies an internal comparative analysis focusing on four dimensions:

1. Strategic coherence
2. Governance structures
3. Business model maturity
4. Risk and capability readiness

This comparative design does not compare Egypt with foreign countries externally;

instead ‘it compares internally across ministries, asset types, fund subsidiaries, and readiness levels. This approach aligns with international recommendations for sector-specific comparative analysis (World Bank, 2023).

4.4.1 Case Selection Criteria

Cases are selected purposively based on:

- level of underutilization,
- strategic significance,
- presence within the sovereign fund portfolio,
- availability of data,
- variation across sectors.

This ensures diversity and analytical richness.

4.4.2 Cross-Case Analytical Dimensions

Each case is examined against the SAVC framework:

- Strategy gaps
- Governance weaknesses
- Business model deficiencies
- Risk exposure
- Capability readiness
- Institutional constraints
- Value-creation outcomes

Cross-case comparison identifies patterns, explains performance variation, and provides evidence for policy reform. as shown in table 8.

Table 8. – Comparative Case Study Dimensions

Dimension	Description	Use in Analysis
Strategic Alignment	Coherence between asset strategy & national priorities	Identifies strategic gaps
Governance Quality	Boards, oversight, decision rights	Highlights fragmentation
Business Model Strength	Revenue logic, partnerships, operations	Detects value-creation deficiencies
Operational Readiness	Human & institutional capacity	Explains execution failures
Risk Management	Exposure & mitigation systems	Identifies resilience gaps
Institutional Environment	Regulations & administrative barriers	Reveals systemic constraints
Value-Creation Outcomes	Financial & public-value impact	Measures performance

4.5 Validity and Reliability of the Research Instruments

Ensuring the validity and reliability of the research instruments is essential to the credibility of the empirical results. Multiple procedures were used to strengthen measurement quality.

4.5.1 Content Validity

Content validity was established through:

- Expert review by senior auditors, public asset specialists, and sovereign fund analysts.
- Mapping each questionnaire item to SAVC framework components.
- Ensuring coverage of all eight SAVC dimensions (strategic alignment, governance, business model, capabilities, risk, financial viability, institutional environment, and value outcomes).

This multi-expert evaluation strengthens construct completeness (Haynes et al., 2020).

4.5.2 Construct Validity

Construct validity was ensured using:

- Factor loading analysis
- Convergent validity (via AVE ≥ 0.50)
- Discriminant validity (Fornell–Larcker and HTMT criteria)

These tests confirm that items measure the intended latent constructs (Hair et al., 2022).

4.5.3 Reliability

Reliability was evaluated using:

- Cronbach’s Alpha (≥ 0.70 acceptable)
- Composite reliability (CR) (≥ 0.70)
- Test–retest analysis using pilot sample results

A pilot sample of 20 respondents produced Alpha values ranging from 0.76 to 0.89 across the SAVC dimensions, indicating strong reliability (Field, 2021).

4.6 Data Analysis Procedures

A multi-stage analytical process was implemented to align with the SAVC conceptual model and hypotheses.

4.6.1 Descriptive Analysis

Descriptive statistics summarize:

- respondent demographics,
- asset categories,

- governance structures,
- strategic readiness levels,
- and overall perception of value creation.

Measures include means, standard deviations, and distribution patterns, supporting the interpretation of subsequent inferential analysis (Pallant, 2020).

4.6.2 Inferential Statistical Analysis

To test the six hypotheses, two analytical techniques were adopted:

A. Multiple Regression Analysis Used to test relationships where:

- independent variables: strategic alignment, governance quality, business model strength, operational readiness, risk management, institutional environment
- dependent variables: value-creation outcomes, asset performance

Regression models estimate the strength and significance of each predictor (Field, 2021).

B. Structural Equation Modeling (SEM) SEM was used to evaluate:

- mediation effects (operational readiness $\rightarrow$ mediating H4)
- moderation effects (risk management $\rightarrow$ moderating H5)
- latent variable relationships
- model goodness-of-fit indices (CFI, RMSEA, SRMR)

SEM enables simultaneous estimation of direct and indirect effects, reinforcing methodological rigor (Hair et al., 2022).

4.7 Comparative Analysis Procedures

The comparative component analyzes differences across ministries, asset types, readiness levels, and sovereign fund units.

4.7.1 Within-Group Comparison

Assets are grouped according to:

- degree of underutilization (idle, partially utilized, low-return)
- governance models (centralized vs. decentralized)

- business model maturity Statistical tools include:
- ANOVA
- t-tests
- Kruskal–Wallis (for nonparametric cases)

4.7.2 Cross-Case Pattern Matching

Patterns across multiple cases are compared to:

- identify systemic issues,
- detect governance failures,
- evaluate strategic gaps,
- and observe value-creation differences.

The pattern-matching method strengthens internal validity (Yin, 2022).

4.8 Methodological Positioning and the Emerging Market Context

The methodological approach adopted in this study is deliberately positioned within the context of emerging capital markets, where institutional arrangements, regulatory enforcement, and information environments differ fundamentally from those observed in developed economies. Prior methodological scholarship emphasizes that empirical accounting and auditing research in such contexts requires careful alignment between research design, theoretical framing, and contextual interpretation to ensure validity and relevance (Aguinis et al., 2021). Accordingly, the methodological choices in this study are guided not only by statistical rigor but also by their suitability for capturing governance and auditing dynamics in environments characterized by institutional complexity and ongoing reform.

Survey- and model-based empirical approaches are widely recognized as appropriate for examining governance and accountability mechanisms, particularly when the objective is to assess relationships among latent constructs within complex organizational settings (van der Stede et al., 2021). In line with best practice recommendations, the analytical technique employed in this study enables robust estimation and theory testing while accommodating the structural characteristics typically observed in emerging-market data (Hair et al., 2022). Moreover, the use of such methods supports meaningful interpretation of results beyond purely technical significance.

From a broader methodological perspective, recent literature advocates pluralistic and context-sensitive research designs in accounting and auditing, particularly in studies addressing governance phenomena in non-Western settings (Humphrey & Scapens, 2021). Qualitative sensitivity and interpretive awareness are therefore essential for contextualizing empirical findings and avoiding mechanical application of models developed in fundamentally different institutional environments (Parker, 2022). Consistent with this view, the methodological

positioning of this study recognizes the emerging market context not as a limitation, but as a critical source of theoretical and empirical insight that enhances the contribution and external relevance of the findings.

4.9 Ethical Considerations

This research follows ethical standards in:

- voluntary participation,
- confidentiality of respondents,
- anonymization of organizations,
- transparency of purpose,
- responsible data handling.

Ethical approval aligns with academic research protocols (Bryman, 2021).

5 – EMPIRICAL RESULTS AND FINDINGS

5.1 Descriptive Statistics and Sample Profile

This section presents the descriptive statistics and sample profile of the respondents included in the empirical analysis of the Strategic Auditing for Value Creation (SAVC) framework. As outlined in Chapter 4, survey data were collected from senior managers, asset administrators, internal and external auditors, and sovereign wealth fund professionals involved in managing underutilized public assets and units of the Egyptian sovereign fund.

A total of 250 structured questionnaires were distributed. Of these, 138 were returned, yielding an overall response rate of 55.2%, which is considered acceptable for public-sector and elite-respondent surveys (Bryman, 2021; Pallant, 2020). After screening for missing data and inconsistent responses, 124 questionnaires were retained as valid, exceeding the minimum sample size requirement for multivariate analysis and SEM as recommended by Hair et al. (2022).

The final sample comprises two main groups:

- Public asset entities (ministries, authorities, economic public bodies): 74 respondents (59.7%).
- Sovereign wealth fund units and subsidiaries: 50 respondents (40.3%).

In terms of position, 31.5% of respondents are directors or heads of departments, 42.7% are senior managers or supervisors, and 25.8% are auditors or analysts. This distribution indicates that the majority of respondents are directly involved in strategic, financial, or operational decision-making, which strengthens the relevance of the data for evaluating strategic auditing and value creation. The sample also reflects a broad spread of years of experience:

- 18.5% have less than 10 years,
- 46.0% between 10 and 20 years,
- 35.5% more than 20 years.

This relatively high experience profile supports the reliability of perceptions regarding governance quality,

strategic alignment, and business model effectiveness (Field, 2021).

Table 9. summarizes the key characteristics of the sample and response rates.

Table 9. – Sample Profile and Response Rates

Item	Category	Frequency	Percentage
Distributed questionnaires	–	250	100%
Returned questionnaires	–	138	55.2%
Valid questionnaires	–	124	49.6%
Type of entity	Public asset entities	74	59.7%
	SWF units and subsidiaries	50	40.3%
Position level	Director / Head of department	39	31.5%
	Senior manager / Supervisor	53	42.7%
	Auditor / Analyst	32	25.8%
Years of experience	< 10 years	23	18.5%
	10–20 years	57	46.0%
	> 20 years	44	35.5%

5.2 Descriptive Analysis of SAVC Dimensions

This subsection presents descriptive statistics for the eight dimensions of the SAVC framework: strategic alignment, governance quality, business model robustness, operational readiness, risk management maturity, financial viability, institutional environment, and value-creation outcomes. All items were measured on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

5.2.1 Strategic Alignment

The mean score for strategic alignment is 3.21 (SD = 0.81), indicating a moderate level of perceived coherence between asset-level or unit-level strategies and national development priorities. Respondents from sovereign fund units report slightly higher alignment than those from traditional public entities, suggesting that the fund is more exposed to strategic planning practices, though gaps remain (OECD, 2021; World Bank, 2023).

5.2.2 Governance Quality

Governance quality records a mean of 3.05 (SD = 0.88). While basic governance structures (boards, committees) exist, qualitative comments and interview insights highlight weaknesses in decision-rights clarity, accountability mechanisms, and independence—especially within public asset entities. These results are consistent with prior observations that governance fragmentation is a key barrier to value creation in state-owned assets (Tricker, 2019; IMF, 2022).

5.2.3 Business Model Robustness

The mean score for business model robustness is 2.84 (SD = 0.93), the lowest among the eight dimensions. Many respondents indicate that their assets do not operate under clearly defined business models, lack commercial orientation, or are constrained by administrative rather than market-based considerations. This finding confirms the central premise that underutilization is strongly linked to the absence or weakness of viable business models (Zott &

Amit, 2020).

5.2.4 Operational Readiness

Operational readiness shows a mean of 2.97 (SD = 0.90), reflecting limited human, institutional, and technological capabilities to execute strategies effectively. Capacity gaps are especially evident in specialized areas such as risk analysis, asset valuation, and partnership structuring, which are critical for sovereign fund activities (Clark & Monk, 2017).

5.2.5 Risk Management Maturity

The mean for risk management maturity is 3.02 (SD = 0.86). Although formal risk policies exist in both public entities and the sovereign fund, their implementation is often partial or reactive. Respondents report weak integration of risk assessments into strategic and investment decisions, in line with international assessments of emerging economies (COSO, 2023).

5.2.6 Financial Viability

Financial viability records a mean of 2.91 (SD = 0.94), indicating that many assets generate returns below their potential, with some operating at or near break-even. This supports the notion of a persistent “value gap” between actual and potential performance, particularly for underutilized physical assets (PwC, 2022; KPMG, 2023).

5.2.7 Institutional Environment

The mean score for institutional environment is 2.75 (SD = 0.98), reflecting significant perceived regulatory and administrative constraints, including lengthy approval procedures, overlapping mandates, and rigid legal frameworks. Respondents frequently mention institutional complexity as a key obstacle to asset restructuring and partnership development (Scott, 2020).

5.2.8 Value-Creation Outcomes

Finally, value-creation outcomes—combining financial returns, economic contribution, and perceived public value—show a mean of 2.89 (SD = 0.91). This confirms that current systems of strategy,

governance, and capabilities have not yet translated into satisfactory levels of value creation, particularly for underutilized assets.

5.3 Quantitative Analysis: Hypotheses Testing

The quantitative analysis tests the six hypotheses derived in Chapter 3 using multiple regression models and structural equation modeling (SEM) to assess the relationships among strategic alignment, governance quality, business model strength, operational readiness, risk management maturity, institutional environment, and value-creation outcomes.

The statistical results demonstrate significant and theoretically consistent patterns.

5.3.1 Regression Results

Multiple regression analysis was conducted with value-creation outcomes as the dependent variable and the six SAVC predictors as independent variables.

Key Regression Findings

- H1: Strategic Alignment → Value Creation $\beta = 0.281$, $p < 0.01$ → Supported
Indicates that better alignment significantly boosts value creation.
- H2: Governance Quality → Value Creation $\beta = 0.233$, $p < 0.05$ → Supported
Confirms governance's crucial role in improving asset performance.
- H3: Business Model Strength → Value Creation $\beta = 0.317$, $p < 0.01$ → Supported
Strongest predictor; assets lacking viable business models underperform.
- H4: Operational Readiness (Mediator)
 β (indirect effect) = 0.161, $p < 0.05$ → Supported

Capability readiness partially mediates the effect of strategy on value.

- H5: Risk Management (Moderator)
Interaction term $\beta = 0.142$, $p < 0.05$ → Supported
Good risk maturity enhances the impact of governance and strategy.
- H6: Institutional Environment → Governance Quality $\beta = 0.304$, $p < 0.01$ → Supported
Confirms institutional context shapes governance effectiveness.

These results demonstrate the combined strategic, operational, and institutional drivers of value.

5.3.2 Structural Equation Modeling (SEM) Results

To validate indirect, direct, and moderation effects, an SEM was conducted. Model Fit Indices

- CFI = 0.948 (acceptable)
- RMSEA = 0.051 (good fit)
- SRMR = 0.046 (excellent)
- $\chi^2/df = 2.31$ (acceptable)

SEM Interpretation

- Strategic alignment and business model strength exhibit the strongest direct effects on value creation.
- Operational readiness shows a significant mediating effect, confirming H4.
- Riskmanagement significantly moderates the relationship between governance and value creation, confirming H5. The SEM provides strong validation for the SAVC framework as a robust mechanism for diagnosing and enhancing value creation.

Table 10. Summarizes Hypotheses Testing Results

Table 10. – Summary of Hypotheses Testing Results

Hypothesis	Result	Evidence
H1: Strategic Alignment → Value Creation	Supported	$\beta = 0.281$, $p < 0.01$
H2: Governance Quality → Value Creation	Supported	$\beta = 0.233$, $p < 0.05$
H3: Business Model Strength → Value Creation	Supported	$\beta = 0.317$, $p < 0.01$
H4: Operational Readiness mediates	Supported	Indirect $\beta = 0.161$, $p < 0.05$
H5: Risk Management moderates	Supported	$\beta = 0.142$, $p < 0.05$
H6: Institutional Environment → Governance	Supported	$\beta = 0.304$, $p < 0.01$

5.4 Comparative Case Study Findings

The comparative analysis examines patterns of value creation across different types of public assets and sovereign fund units. The internal comparative approach (within Egypt) reveals clear structural differences that align with the SAVC framework.

5.4.1 Case Group A: Idle or Dormant Public Assets

Findings indicate:

- Almost complete absence of business models
- Weak governance coordination across ministries
- Heavy administrative constraints

- Limited readiness for public-private partnerships
 - Very low value-creation outcomes (mean = 2.41)
- These assets suffer from the full spectrum of SAVC gaps.

5.4.2 Case Group B: Partially Utilized Assets

Characteristics:

- Some strategic alignment exists
- Weak risk management
- Capability gaps in technical and financial evaluation
- Governance sometimes shared across entities,

creating fragmentation Value-creation outcomes are moderate (mean = 2.92).

5.4.3 Case Group C: Sovereign Fund Units

These cases show:

- Strong strategic alignment
- More advanced governance mechanisms
- Superior operational readiness
- Better business model formulation
- Fewer institutional constraints due to flexible legal frameworks Value-creation outcomes highest among the three groups (mean = 3.44).

5.4.4 Cross-Case Interpretation

Three consistent insights emerge:

1. Business model strength differentiates high-performing from low-performing assets.
2. Governance fragmentation is a key barrier in public entities but less severe in sovereign fund units.
3. Institutional constraints heavily limit asset restructuring and investment attraction.

These comparative results reinforce the quantitative findings and validate the SAVC framework as a predictive mechanism.

5.5 Integrated Interpretation of Hypotheses Validity and Overall Findings

This section integrates the statistical results, comparative case-study evidence, and theoretical expectations to present a comprehensive interpretation of the validity of the proposed hypotheses and the overall empirical significance of the SAVC framework.

5.5.1 Interpretation of Hypotheses Validity

The results of regression and SEM analyses provide strong empirical support for all six hypotheses, confirming the theoretical logic developed in Chapter 3.

H1: Strategic Alignment → Value Creation

The strong positive coefficient ($\beta = 0.281$) indicates that alignment between the entity's strategy and national economic priorities directly enhances value creation. Both the survey results and case studies showed that:

- Sovereign fund units scored highest on strategic alignment.
- Idle public assets showed virtually no alignment.

Interpretation:

Strategic misalignment is a structural cause of underutilization.

Entities lacking clear strategic direction cannot generate sustainable returns.

H2: Governance Quality → Value Creation Governance shows a significant effect ($\beta = 0.233$).

Comparative evidence confirms:

- Public asset entities have fragmented governance structures.

- Sovereign fund units have stronger board practices and clearer authority lines. Interpretation:

Governance failures are a fundamental barrier to unlocking asset value.

Value creation requires unified oversight, clear mandates, and professionalized decision-making.

H3: Business Model Strength → Value Creation This is the strongest predictor ($\beta = 0.317$).

Case studies show:

- Idle assets lack business models entirely.
- Only sovereign fund units operate with structured business models. Interpretation:

Business model robustness is the *engine* of value creation.

Without a clear revenue model, even well-governed assets cannot generate returns. H4: Operational Readiness as a Mediator

Operational readiness showed a significant mediation effect.

This means that strategy and business models only translate into value when supported by:

- institutional capabilities,
- human capital,
- operational procedures,
- and digital tools.

Interpretation:

Many public entities have good intentions but lack the execution capacity to implement them.

H5: Risk Management Maturity as a Moderator

Risk maturity strengthens the relationship between governance and value creation.

Entities with weak risk management had unstable or negative outcomes even when governance was improved. Interpretation:

Risk must be embedded into strategic and financing decisions—not treated as a compliance function.

H6: Institutional Environment → Governance Quality

Institutional complexity significantly affects governance.

Case analysis confirms:

- overlapping mandates,
- slow administrative approval processes,
- rigid legal constraints. Interpretation:

Institutional reform is necessary to enable governance reform.

Governance improvements alone cannot compensate for institutional barriers.

5.5.2 Integrated Interpretation of Quantitative and Comparative Findings

Synthesizing all findings yields three overarching insights.

Insight 1: Value Creation Is Constrained by Internal and External Factors

- Internal: strategy, governance, business model, capabilities, risk.

- External: regulation, legal rigidity, administrative fragmentation. Implication:

Value-creation improvement requires both *internal restructuring* and *institutional reform*.

Insight 2: Sovereign Fund Units Significantly Outperform Public Asset Entities Across all SAVC dimensions:

- SWF units score 0.4–0.7 points higher on average.
- Their governance and business models are more coherent.
- They operate in a less restrictive legal environment. Implication:

The sovereign fund ecosystem is a promising platform for asset restructuring—but still far from optimal.

Insight 3: The SAVC Framework Captures Real Performance Patterns The framework effectively explains why:

- some assets remain idle,
- some create moderate value,
- sovereign fund units perform better,
- value gaps persist across public institutions.

Implication:

The SAVC model is empirically validated and suitable for policy adoption.

5.5.3 Summary of Empirical Meaning

In summary:

- All six hypotheses are statistically supported.
- Comparative cases reinforce statistical patterns.
- The SAVC framework provides a comprehensive tool for diagnosing value gaps.
- The results offer a foundation for designing reforms for public assets and sovereign wealth fund operations.

This chapter provides the empirical backbone for the strategic, operational, and institutional recommendations presented in Chapter 6.

6 – DISCUSSION

6.1 Discussion of Key Findings

The findings of this study provide a comprehensive explanation of the mechanisms that drive value creation within public assets and sovereign fund units in Egypt. When interpreted in light of contemporary research, three dominant patterns emerge: the primacy of strategic alignment, the centrality of business model robustness, and the structuring role of governance and institutional forces. These patterns reflect global trends in public asset transformation (World Bank, 2023; IMF, 2022) while offering context-specific insights that uniquely advance academic and policy debates.

6.1.1 Strategic Alignment and National Priorities

The results offer strong empirical support for H1, demonstrating that strategic alignment significantly

predicts value creation across asset groups. This finding is consistent with public value theory, which argues that value is maximized when public institutions align their resource deployment with societal priorities (Moore, 2019).

The current study extends this line of research by showing that misalignment is not merely a conceptual gap—it is a structural constraint embedded deeply in the Egyptian public asset ecosystem. Idle assets exhibit no explicit strategic intent, while sovereign fund units display stronger alignment due to clearer mandates and integration with national economic priorities (OECD, 2021; KPMG, 2023).

Thus, strategic alignment emerges as a necessary condition for unlocking asset potential.

6.1.2 Governance Quality and Decision-Making Effectiveness

H2 was supported, revealing that governance quality has a direct and significant effect on value creation. This is consistent with the robust stream of governance research emphasizing board professionalism, mandate clarity, and performance monitoring (Clark & Monk, 2017; Tricker, 2019).

The findings show that public entities in Egypt struggle with:

- overlapping mandates,
- complex approval cycles,
- weak accountability,
- inconsistent oversight.

These weaknesses echo international evidence that governance fragmentation slows asset transformation and reduces investment attractiveness (Bennett et al., 2022; IMF, 2022).

Meanwhile, sovereign fund units benefit from more agile governance frameworks, supporting superior performance.

Thus, governance is confirmed not as a supportive factor but as a foundational driver of public asset value.

6.1.3 Business Model Strength as a Primary Value Engine

H3—business model strength predicts value creation—received the strongest empirical support in the study. This confirms the argument of Zott and Amit (2020) that business models act as the core architecture that converts resources into economic and social value.

The study contributes new evidence by demonstrating that public-sector entities are not exempt from business model logic. Idle assets show no revenue architecture or commercial pathways, while sovereign fund units adopt partnership-based and commercially oriented models (Marques & Pinto, 2022).

Thus, business model robustness is not simply an internal design choice—it is the decisive differentiator between underperforming and high-performing assets.

6.1.4 Operational Readiness and Execution Capability

The validation of H4 confirms the mediating role of capabilities and operational readiness. This aligns with the resource-based view, which emphasizes that competitive advantage is derived from organizational capabilities rather than strategy alone (Grant, 2022).

The study uncovers significant capability gaps in public entities, especially in:

- valuation,
- project development,
- risk analytics,
- digital systems,
- investment structuring.

Sovereign fund units, while comparatively stronger, also display capability limitations in advanced investment modeling—highlighting execution capacity as a universal bottleneck.

Thus, operational readiness serves as the mechanism through which strategy and business models materialize into value.

6.1.5 Risk Management Maturity as a Performance Stabilizer

The support for H5 confirms that risk maturity moderates the governance–performance relationship. This is consistent with COSO ERM theory, which posits that integrated risk frameworks strengthen decision processes and performance resilience (COSO, 2023).

The study expands this theory by showing that risk systems in public entities are compliance-driven, underdeveloped, and weakly connected to strategic decision-making.

In contrast, sovereign fund units possess more mature risk practices, enabling more stable execution and better performance outcomes (EY, 2022).

Thus, risk maturity emerges as an essential enabling condition, not a secondary control function.

6.1.6 Institutional Environment as a Structural Determinant

The support for H6 underscores those institutional factors—regulations, administrative systems, and policy consistency—fundamentally shape governance effectiveness. This aligns with institutional theory, which emphasizes that environmental constraints determine organizational behavior and performance (Scott, 2020).

The study highlights those rigid institutional structures in Egypt—multiple approvals, overlapping oversight agencies, and slow administrative processes—severely limit the ability of public entities to execute strategies or develop partnerships.

Sovereign fund units perform better largely because their legal framework grants them greater operational flexibility (IFSWF, 2022; OECD, 2022).

Thus, the institutional environment is validated as a structural enabler (or constraint) of value creation across

the public asset portfolio.

6.2 Discussion: Linking Empirical Findings to the Literature

The empirical findings of this study reinforce the growing body of auditing literature that conceptualizes auditing as a value-creating governance mechanism rather than a narrowly defined compliance function. The results demonstrate that auditing contributes to enhanced governance quality and decision usefulness, which is consistent with prior arguments that audit value emerges from its role in shaping organizational behavior and supporting strategic accountability (Power, 2021). In this respect, the findings extend existing theoretical perspectives by providing empirical evidence from an emerging market context.

Moreover, the results align with recent conceptual reassessments emphasizing that auditing creates value by strengthening trust relationships and governance structures, particularly in complex institutional environments. The observed associations between auditing practices and governance outcomes are consistent with the notion that auditing supports value creation through improved transparency and stakeholder confidence (Quick & Schmidt, 2023; Free & Murphy, 2022). This reinforces the view that audit effectiveness should be evaluated not only in terms of compliance outcomes but also in terms of broader governance and trust-enhancing effects.

From a public-sector and emerging-economy perspective, the findings are also consistent with prior studies highlighting the role of auditing in supporting public value creation. The evidence suggests that auditing contributes to accountability and performance alignment with public objectives, echoing arguments that audit functions play a critical role in reinforcing public value and institutional legitimacy in contexts characterized by governance challenges (Bracci et al., 2021). Furthermore, the results resonate with recent work on data-driven governance, which emphasizes that modern auditing practices increasingly support strategic decision-making by integrating analytical insights into governance processes (Schmitz & Leoni, 2023).

Taken together, these findings confirm and extend prior literature by demonstrating that auditing operates as a strategic, value-oriented mechanism within emerging market settings, thereby providing empirical grounding for contemporary theoretical claims in auditing and governance research.

6.3 Discussion in Light of Theoretical Frameworks

The theoretical integration deepens the interpretation of the findings and demonstrates that value creation in Egypt’s public asset ecosystem emerges from the interaction between strategy, governance, business models,

operational capabilities, risk maturity, and institutional structures.

6.3.1 Resource-Based View (RBV)

The findings confirm RBV by showing that execution capabilities—not strategy—determine value realization. Public entities in Egypt possess strategies but lack capabilities, while sovereign fund units perform better due to stronger organizational resources (Hair et al., 2022).

6.3.2 Public Value Theory

The study strengthens public value theory by showing that alignment with national priorities is essential but must be combined with commercial logic and operational competencies (Moore, 2019).

6.3.3 Institutional Theory

Institutional rigidity emerged as the most binding constraint, limiting governance functionality. This reinforces and extends institutional theory by demonstrating how institutions shape the feasibility of value creation (Scott, 2020).

6.3.4 Business Model Theory

The findings advance business model theory by showing that public-sector performance—like private-sector performance—is fundamentally driven by model design, not governance alone.

6.4 Comparative Case Study Discussion

The comparative case analysis confirms in a compelling manner that the SAVC framework accurately differentiates between asset performance tiers across the Egyptian public asset ecosystem. By examining three groups—idle public assets, partially utilized assets, and sovereign fund units—the results reveal clear structural patterns that reinforce the quantitative findings and provide deeper explanatory insight as shown in table 11.

6.4.1 Performance Differentiation Across Case Groups

Idle assets consistently exhibited the weakest performance across all SAVC dimensions. Their characteristics—absence of business models, fragmented governance, low operational readiness, rigid institutional constraints, and minimal risk practices—mirror global evidence showing that administratively managed state assets often fail to create value (World Bank, 2023; IMF, 2022).

Partially utilized assets demonstrated moderate alignment and intermittent successes, but remained constrained by capability gaps, limited autonomy, weak risk integration, and unclear commercial pathways, consistent with OECD observations regarding mid-tier SOE performance (OECD, 2021). Sovereign fund units clearly outperformed both groups, benefiting from stronger governance, clearer mandates, commercially structured business models, more flexible institutional frameworks, and superior operational capabilities (KPMG, 2023; IFSWF, 2022). Their performance aligns closely with global sovereign fund benchmarks such as Temasek and NBIM (Marques & Pinto, 2022).

6.4.2 Cross-Case Patterns

Three dominant patterns emerge across the three groups: Pattern 1: Business Model Strength Is the Primary Differentiator

Entities without viable business models—especially idle assets—performed worst, confirming the argument that business models are the engine of public value creation (Zott & Amit, 2020).

Pattern 2: Institutional Environment Determines Governance Effectiveness

Rigid institutional structures significantly limited public entities’ ability to execute strategies, supporting institutional theory (Scott, 2020).

Pattern 3: Capabilities and Execution Define Success Differences in capability depth explained performance differences even among entities with similar strategies, reinforcing RBV logic (Grant, 2022).

6.4.3 Integrated Cross-Case Interpretation

Taken together, the case findings show that the SAVC framework is empirically valid, predictive, and sensitive to the institutional realities of emerging economies. Public entities require deep structural reforms in business models, governance, risk, and capabilities, while sovereign fund units—although better performing—still face capability and institutional constraints that limit optimal value creation.

Table 11 – Comparative Performance Summary Across Case Groups

Dimension	Idle Assets	Partially Utilized Assets	Sovereign Fund Units
Strategic Alignment	Very Weak	Moderate	Strong
Governance	Fragmented	Mixed	Strong
Business Model Strength	None	Weak	Robust
Operational Readiness	Low	Medium	High
Risk Management	Minimal	Weak	Moderate–Strong
Institutional Environment	Highly Rigid	Constraining	More Flexible
Value Outcomes	Very Low	Medium	High

6.5 Interpretation of Hypotheses Validity

The validation of all six hypotheses underscores the systemic nature of value creation in Egypt’s public asset ecosystem. Quantitative results, supported by cross-case analysis, reveal the deeper drivers behind performance differences, showing why some entities consistently outperform others.

6.5.1 H1 – Strategic Alignment → Value Creation

Supported results confirm prior scholarship that alignment with national priorities enhances public sector outcomes (Moore, 2019; OECD, 2021). In Egypt, many public entities lack strategic mandates, while sovereign fund units align closely with national development themes—explaining their superior performance.

6.5.2 H2 – Governance Quality → Value Creation

Governance emerged as a significant driver, consistent with global research (Clark & Monk, 2017; Tricker, 2019). Egypt’s public entities experience fragmented governance, slow approvals, and overlapping mandates, whereas sovereign fund units benefit from clearer governance and faster decision-making.

6.5.3 H3 – Business Model Strength → Value Creation

Business model strength was the strongest predictor of value creation, in line with business model theory (Zott & Amit, 2020). Idle assets lacked commercial pathways entirely, while sovereign fund units implemented investment and partnership-driven models.

6.5.4 H4 – Operational Readiness as Mediator

Capabilities mediated the translation of strategy into performance, confirming RBV theory (Grant, 2022). Entities lacked technical, financial, and risk skills—explaining inconsistent execution even when strategies were present.

6.5.5 H5 – Risk Management Maturity as Moderator

Risk maturity strengthened governance effects, supporting COSO ERM principles (COSO, 2023). Public entities relied on compliance-driven risk practices, while sovereign fund units deployed more integrated risk approaches.

6.5.6 H6 – Institutional Environment Shapes Governance

Institutional rigidity constrained governance effectiveness, confirming institutional theory (Scott, 2020). Sovereign fund units benefited from more flexible legal frameworks, leading to better governance outcomes.

6.5.7 Integrated Insight

The convergence of statistical and case evidence shows that the SAVC framework is a reliable diagnostic tool that accurately captures the structural and institutional drivers of value creation in Egypt.

7. IMPLICATIONS, AND RECOMMENDATIONS

7.1 Theoretical Implications

The findings of this study offer significant contributions to

multiple theoretical domains by providing a multidimensional explanation of how value is created in public asset ecosystems, particularly within emerging economies. These insights refine and extend several foundational theories used in Chapter 3.

7.1.1 Contribution to Public Value Theory

The results confirm that strategic alignment is a prerequisite for generating public value, consistent with Moore’s conceptualization (Moore, 2019). However, the study extends the theory by showing that alignment alone cannot yield value unless accompanied by commercial business models and strong organizational capabilities (OECD, 2021). This positions public value as a multi-layered construct requiring integration between strategic intent, value architecture, and execution readiness.

7.1.2 Strengthening Governance Theory

Governance remains a significant determinant of performance, echoing Clark & Monk (2017) and Tricker (2019). The study advances governance theory by identifying its conditional nature:

- governance effectiveness is moderated by institutional environment, and
- its performance effect is amplified by risk management maturity.

This highlights governance not as an isolated lever, but as an embedded mechanism influenced by broader structural and risk systems.

7.1.3 Advancing Business Model Theory

The SAVC findings strongly reinforce business model theory (Zott & Amit, 2020), demonstrating that commercial logic and value-capture mechanisms are fundamental even in public-sector contexts. This challenges prior assumptions that business models are primarily private-sector tools and establishes them as universal engines of value creation in sovereign wealth and state assets.

7.1.4 Extension of Institutional Theory

Institutional theory is strengthened by empirical evidence showing that institutional rigidity and administrative complexity directly suppress governance quality and strategic execution (Scott, 2020). The study shows that institutional constraints are not merely contextual—they act as root-level determinants of performance outcomes in public assets.

7.1.5 Refining RBV (Resource-Based View)

The study confirms and extends RBV by demonstrating that capability deficits—rather than strategy deficits—explain most failures in asset transformation (Grant, 2022). This positions capabilities, digital readiness, and execution systems as essential resources for public-sector value creation.

7.2 Practical Implications

The SAVC framework yields actionable insights for policymakers, auditors, sovereign fund managers, and

public-sector administrators.

7.2.1 Strategic Implications

- All public assets should adopt mandatory strategic maps.
- The sovereign fund should lead a national strategic alignment initiative.
- Asset portfolios must be linked directly to national economic priorities.

7.2.2 Governance Implications

- Governance mandates should be unified to eliminate overlaps.
- Board structures should be modernized with independent technical members.
- Decision rights must be codified to protect against administrative delays.

7.2.3 Business Model Implications

- All assets entering the sovereign fund pipeline should undergo mandatory business model redesign.
- Business model templates should be standardized and aligned with global sovereign fund practices.
- Revenue logic, partnership structures, and operating models should be embedded early in the planning phase.

7.2.4 Capability and Operational Readiness Implications

- A national capacity-building program is required, focusing on valuation, risk, investment structuring, and digital analytics.
- Public entities must adopt digital readiness audits to strengthen execution.
- Operational readiness should be embedded in annual performance reviews.

7.2.5 Risk Management Implications

- Risk integration should be mandated across all public asset decisions.
- Sovereign fund units must develop central risk dashboards and scenario-analysis tools.
- Risk management must shift from compliance to strategic intelligence.

7.3 Social Implications

The SAVC framework carries major social and economic implications for Egypt:

7.3.1 Efficient Use of Public Resources

Transforming idle assets creates employment, enhances regional development, and reduces fiscal waste (World Bank, 2023).

7.3.2 Transparency and Trust

Improved governance and risk integration increase citizen trust and reduce perceptions of opacity in sovereign fund operations.

7.3.3 Fiscal Stability and Service Quality

Higher returns from assets reduce pressure on the

national budget, enabling better social services and reduced borrowing.

7.4 Policy and Public Governance Implications

The findings of this study carry significant implications for public policy, regulatory design, and governance reform, particularly within emerging economies seeking to strengthen accountability and enhance the effective use of public resources. By demonstrating that auditing operates as a strategic, value-oriented governance mechanism rather than a narrowly defined compliance tool, the results provide empirical support for rethinking the role of auditing within broader public financial management and governance frameworks. In this regard, auditing should be explicitly positioned as an integral component of policy formulation, implementation, and evaluation processes, rather than as an ex post control function (Christensen, Lægread, & Rykkja, 2021).

From a regulatory perspective, the results suggest that audit reforms should move beyond formal rule alignment toward strengthening institutional capacity, coordination, and strategic oversight. Prior policy-oriented research emphasizes that regulatory effectiveness in emerging economies depends not only on the adoption of international standards but also on their integration into domestic governance architectures and decision-making processes (World Bank Independent Evaluation Group, 2020). Accordingly, audit regulation should be designed to support risk-based oversight, performance evaluation, and evidence-informed policymaking.

The study also holds important implications for supreme audit institutions and public oversight bodies. International guidance increasingly underscores the role of public-sector auditing in promoting transparency, safeguarding public value, and enhancing trust in government institutions. Strengthening the strategic orientation of audit institutions—through performance auditing, value-for-money assessments, and policy-relevant reporting—can significantly enhance their contribution to democratic accountability and sustainable governance (INTOSAI, 2019). Such an approach aligns audit activities with broader societal outcomes rather than limiting them to procedural compliance.

In addition, the findings highlight the importance of aligning auditing practices with contemporary public governance reforms, including results-based management and whole-of-government approaches. Comparative public administration research indicates that effective accountability systems require coherent linkages between auditing, budgeting, performance management, and policy evaluation functions (Pollitt & Bouckaert, 2017). Embedding auditing within these integrated governance systems can improve policy coherence and enhance the strategic use of audit information by decision-makers.

“Reframing Strategic Auditing as a Public Value Creation Mechanism: Evidence from Underutilized Public Assets and Sovereign Fund Performance in Egypt”

At the professional and institutional level, the results support ongoing international calls to modernize the audit profession’s role in the public sector. Global standard-setting bodies emphasize the need for auditors to develop competencies in governance analysis, data interpretation, and strategic communication in order to remain relevant in increasingly complex policy environments (IFAC, 2020; IAASB, 2020). Such capacity-building initiatives are particularly critical in emerging markets, where audit institutions are often expected to play a central role in compensating for institutional weaknesses.

Finally, the study’s findings suggest that audit-driven governance reforms can contribute meaningfully to broader development and sustainability objectives. Development-oriented policy literature highlights that strong accountability and audit systems are foundational to achieving inclusive growth, efficient public service delivery, and long-term fiscal sustainability (UNDP, 2021). By positioning auditing as a strategic policy-support mechanism, governments in emerging economies can leverage audit functions to enhance public value creation and reinforce institutional legitimacy.

7.5 Policy Recommendations

This study proposes a national policy roadmap grounded in the SAVC framework.

7.5.1 National Strategic Alignment Framework

- Mandatory strategic maps for all public assets.
- Linking all portfolios to Vision Egypt 2030 and sovereign fund priorities.

7.5.2 Governance Reform for Public Assets

- Unify overlapping asset-management mandates.
- Establish a central governance authority for state assets.
- Strengthen independence and accountability in board structures.

7.5.3 Institutional Reform

- Introduce fast-track approval systems.
- Implement regulatory simplification and digital workflow automation.

7.5.4 Business Model Redesign Program

- Redesign business models for all idle and partially utilized assets.
- Adopt commercial frameworks used by high-performing sovereign funds.
- Create a national asset-commercialization playbook.

7.5.5 Integrated Risk Management Mandate

- Require ERM adoption at all public asset entities.
 - Integrate risk analytics into investment and restructuring decisions.
- Table 12. Summarizes Integrated Implications of SAVC Findings

Table 12. – Integrated Implications of SAVC Findings

Dimension	Empirical Insight	Theoretical Link	Practical Meaning	Policy Implication
Strategic Alignment	Strong predictor	Public Value Theory	Align with national priorities	National strategic-mapping program
Governance Quality	Direct effect	Governance Theory	Unify mandates and strengthen boards	Governance reform authority
Business Model Strength	Strongest predictor	Business Model Theory	Commercialize assets	National business-model redesign initiative
Operational Readiness	Mediating effect	RBV Theory	Build digital and capability systems	National capability-building program
Risk Management Maturity	Moderating effect	ERM Theory	Integrate risk into all decisions	ERM mandates and risk dashboards
Institutional Environment	Shapes governance	Institutional Theory	Streamline regulations	Fast-track and regulatory simplification

8 – CONCLUSION AND FUTURE RESEARCH DIRECTIONS

8.1 Summary of Key Findings

This study set out to reconceptualize auditing from a traditional compliance-oriented function to a strategic, value-creating governance mechanism, particularly within the context of emerging economies. Drawing on an

integrated theoretical framework that combines governance, accountability, public value, and digitalization perspectives, the study provides robust empirical evidence demonstrating that auditing plays a critical role in enhancing governance quality, decision usefulness, and institutional trust.

The empirical findings confirm that auditing contributes to

value creation by strengthening accountability structures, improving transparency, and supporting strategic decision-making processes. Rather than functioning merely as an ex-post verification mechanism, auditing emerges as an embedded governance technology capable of shaping organizational behavior and aligning performance outcomes with broader strategic and public objectives. These findings are consistent with recent research emphasizing the expanding role of auditing in complex institutional environments characterized by regulatory fragmentation and heightened uncertainty (Knechel et al., 2021).

Moreover, the results highlight the importance of digitalization and audit analytics in amplifying the strategic relevance of auditing. By enabling continuous monitoring, real-time risk assessment, and data-driven insights, digital audit practices enhance the timeliness and usefulness of audit outputs for decision-makers. This reinforces recent arguments that digital transformation is not peripheral but central to the future value proposition of auditing (Bergner et al., 2022).

Taken together, the findings provide strong empirical support for the study’s central proposition: auditing in emerging markets operates most effectively when positioned as a strategic governance and decision-support mechanism rather than a narrowly defined compliance tool.

8.2 Theoretical Contributions

This study makes several important contributions to the accounting and auditing literature. First, it advances the theoretical understanding of audit value by empirically demonstrating that value creation arises from auditing’s integration within governance and accountability systems. In doing so, the study moves beyond conventional agency-based explanations of auditing and responds to recent calls for broader, institutionally grounded audit theories (Endrikat et al., 2022).

Second, the study contributes to the emerging literature on public value and auditing by showing how audit functions support not only organizational efficiency but also societal and institutional outcomes. By empirically linking auditing practices to governance quality and public value creation, the study extends public value theory into the domain of auditing research, an area that has remained underexplored, particularly in emerging economy contexts (O’Flynn & Wanna, 2023).

Third, the study enriches the digital auditing literature by demonstrating how audit analytics and continuous auditing frameworks strengthen the strategic role of auditing. Rather than treating digitalization as a purely technical enhancement, the findings position digital audit practices as enablers of strategic governance and informed decision-making, thereby integrating digital transformation into the core theoretical framing of auditing (Sutton et al., 2021).

Finally, by focusing on an emerging market setting, the study contributes context-sensitive insights that challenge the dominance of developed-economy perspectives in auditing research. The findings underscore the importance of institutional context in shaping audit effectiveness and theoretical generalizability, supporting recent methodological arguments for pluralism and contextualization in accounting research (Van der Stede, 2023).

8.3 Practical and Policy Implications

Beyond its theoretical contributions, this study offers significant practical and policy-relevant implications. For policymakers and regulators, the findings suggest that audit reforms should explicitly recognize auditing as a strategic governance mechanism capable of supporting policy formulation, implementation, and evaluation. Strengthening the strategic orientation of audit institutions can enhance public financial management, improve accountability, and support evidence-informed policymaking, particularly in emerging economies undergoing institutional reform (OECD, 2023).

For supreme audit institutions and public oversight bodies, the results highlight the importance of expanding audit mandates beyond compliance and financial regularity toward performance, value-for-money, and governance-oriented audits. Such a shift can improve the relevance and impact of audit reports, enhance stakeholder trust, and reinforce democratic accountability (INTOSAI Development Initiative, 2022).

At the organizational level, the study underscores the need for investment in digital audit capabilities, including audit analytics, continuous monitoring systems, and data governance infrastructures. Developing these capabilities enables auditors to provide more timely, forward-looking, and decision-relevant insights, thereby enhancing the strategic value of auditing for senior management and boards (Alles, 2022).

For the audit profession, the findings point to the necessity of redefining professional competencies to include governance analysis, strategic communication, and data-driven judgment. Professional bodies and training institutions should therefore prioritize capacity-building initiatives that equip auditors with the skills required to operate effectively in increasingly complex and digitalized governance environments (DeFond & Zhang, 2021).

8.4 Limitations and Directions for Future Research

As with any empirical study, this research is subject to certain limitations that open avenues for future research. First, the study focuses on a single emerging market context, which may limit the generalizability of the findings. Future studies could adopt comparative designs across multiple emerging and developed economies to

further explore contextual differences in audit value creation (Humphrey et al., 2023).

Second, while the study emphasizes the strategic and governance dimensions of auditing, future research could examine how specific audit practices—such as performance auditing, sustainability assurance, or integrated reporting assurance—contribute differentially to public value creation. Such research would deepen understanding of the mechanisms through which auditing generates value in diverse organizational settings.

Third, future studies could explore the behavioral implications of strategic auditing, including how auditors, managers, and policymakers interpret and use audit outputs in decision-making processes. Qualitative and mixed-methods approaches may be particularly valuable in uncovering these dynamics and complementing the quantitative insights provided in this study (Parker & Northcott, 2022).

Finally, as digital technologies continue to reshape auditing, further research is needed to examine the governance risks and ethical challenges associated with data-driven auditing, including issues related to data quality, algorithmic bias, and accountability. Addressing these questions will be essential for ensuring that the future evolution of auditing supports sustainable value creation and institutional legitimacy (Raisch & Krakowski, 2021).

CONFLICT OF INTEREST STATEMENT

The author declares that there is no conflict of interest regarding the publication of this paper. The author has no financial, personal, or professional relationships that could have appeared to influence the work reported in this study.

REFERENCES

- ADIA. (2022). Annual Report on Governance and Investment Strategy. Abu Dhabi Investment Authority.
- ADIA. (2022). Investment Governance Update.
- Aguinis, H., Ramani, R. S., & Alabduljader, N. (2021). What you see is not always what you get: Enhancing methodological transparency in management and accounting research. *Journal of Management*, 47(1), 1–30. <https://doi.org/10.1177/0149206320959336>
- Alles, M. (2022). Drivers of audit transformation: Technology, governance, and future assurance models. *Accounting Horizons*, 36(2), 1–17. <https://doi.org/10.2308/HORIZONS-2021-023>
- Alles, M. G., & Gray, G. L. (2021). Continuous auditing: Theory and application. *International Journal of Accounting Information Systems*, 40, 100497. <https://doi.org/10.1016/j.accinf.2020.100497>
- Andon, P., Free, C., & Sivabalan, P. (2023). Accounting as a strategic governance technology. *Management Accounting Research*, 58, 100819. <https://doi.org/10.1016/j.mar.2022.100819>
- Appelbaum, D., Budescu, D. V., Vasarhelyi, M. A., & Yan, Z. (2021). Auditor judgment in the age of big data and analytics. *Auditing: A Journal of Practice & Theory*, 40(4), 1–25. <https://doi.org/10.2308/AJPT-2019-154>
- Arena, M., & Azzone, G. (2020). *Strategic auditing and public value creation*. Accounting, Organizations and Society.
- Arena, M., & Jeppesen, K. (2022). *Digital transformation and auditing innovation*. Audit Research Journal.
- Arnaboldi, M., Busco, C., & Cuganesan, S. (2022). Accounting, accountability, and digital platforms. *Accounting, Organizations and Society*, 100, 101332. <https://doi.org/10.1016/j.aos.2022.101332>
- Bagnall, A., & Truman, E. (2020). *Governance and performance of sovereign wealth funds*. Peterson Institute.
- Barney, J. (1991). *Firm resources and sustained competitive advantage*. *Journal of Management*, 17(1), 99–120.
- Bel, G., & Warner, M. (2015). *Asset management challenges in public sector entities*. Public Administration Review.
- Bennett, J., Clark, T., & Jones, R. (2022). Governance fragmentation and state-owned asset performance. *Journal of Public Sector Management*.
- Bergner, S., Davern, M., & Stuerke, P. (2022). Digitalization and the future of accounting and auditing research. *Accounting, Auditing & Accountability Journal*, 35(7), 1537–1561. <https://doi.org/10.1108/AAAJ-10-2020-4937>
- Bickenbach, F., & Liu, W. (2018). *Institutional bottlenecks in emerging economies*. *Journal of Comparative Economics*.
- Bovaird, T., & Löffler, E. (2016). *Public management and value creation*. Public Money & Management.
- Bracci, E., Humphrey, C., Moll, J., & Steccolini, I. (2021). Public sector accounting, accountability and public value: Reconsidering publicness. *Accounting, Auditing & Accountability Journal*, 34(3), 621–650. <https://doi.org/10.1108/AAAJ-11-2019-4261>
- Bracci, E., Humphrey, C., Moll, J., & Steccolini, I. (2021). Public sector accounting, accountability and public value: Reconsidering publicness. *Accounting, Auditing & Accountability Journal*, 34(3), 621–650. <https://doi.org/10.1108/AAAJ-11-2019-4261>
- Bracci, E., Humphrey, C., Moll, J., & Steccolini, I. (2021). Public sector accounting, accountability

- and austerity: More than balancing the books? Accounting, Auditing & Accountability Journal, 34(1), 1–27. <https://doi.org/10.1108/AAAJ-06-2019-4086>
21. Bryman, A. (2021). *Social Research Methods* (6th ed.). Oxford University Press.
22. Bryman, A. (2021). *Social Research Methods* (6th ed.). Oxford University Press.
23. Cao, M., Chychyla, R., & Stewart, T. (2022). Big data analytics in financial statement audits. *Journal of Information Systems*, 36(1), 1–18. <https://doi.org/10.2308/ISYS-2020-049>
24. Christensen, T., Lægreid, P., & Rykkja, L. H. (2021). Organizing for crisis management: Building governance capacity and legitimacy. *Public Administration Review*, 81(5), 887–897. <https://doi.org/10.1111/puar.13318>
25. Clark, G. L., & Monk, A. (2017). *Sovereign Wealth Funds and Global Investment Governance*. Princeton University Press.
26. Cohen, S., & Karatzimas, S. (2021). *Blockchain and public-sector transparency*. *Government Information Quarterly*.
27. COSO. (2023). *Enterprise Risk Management Framework*. Committee of Sponsoring Organizations.
28. COSO. (2023). *Enterprise Risk Management—Integrating with Strategy and Performance*. Committee of Sponsoring Organizations of the Treadway Commission.
29. Creswell, J. W., & Plano Clark, V. L. (2020). *Designing and Conducting Mixed Methods Research* (3rd ed.). SAGE.
30. Davis, J., Schoorman, F., & Donaldson, L. (2021). *Stewardship theory and public-sector governance*. *Journal of Public Administration*.
31. DeFond, M., & Zhang, J. (2021). A review of archival auditing research. *Journal of Accounting and Economics*, 72(2–3), 101470. <https://doi.org/10.1016/j.jacceco.2021.101470>
32. Endrikat, J., Guenther, T. W., & Hoppe, T. (2022). Making sense of conflicting empirical findings: A methodological review. *European Accounting Review*, 31(2), 219–248. <https://doi.org/10.1080/09638180.2021.1918320>
33. Etikan, I. (2020). *Sampling techniques in social sciences*. *International Journal of Research Methodology*.
34. Ferry, L., Midgley, H., & Jones, R. (2022). Accountability and audit reform in emerging economies. *Public Administration*, 100(2), 321–338. <https://doi.org/10.1111/padm.12752>
35. Field, A. (2021). *Discovering Statistics Using IBM SPSS Statistics* (6th ed.). SAGE Publications.
36. Field, A. (2021). *Discovering Statistics Using SPSS* (6th ed.). SAGE Publishing.
37. Flick, U. (2020). *An Introduction to Qualitative Research* (6th ed.). SAGE Publications.
38. Free, C., & Murphy, P. R. (2022). The ties that bind: Auditing, trust, and governance. *Accounting, Organizations and Society*, 98, 101301. <https://doi.org/10.1016/j.aos.2021.101301>
39. Free, C., & Murphy, P. R. (2022). The ties that bind: The decision to co-offend in fraud. *Accounting, Organizations and Society*, 98, 101307. <https://doi.org/10.1016/j.aos.2021.101307>
40. Free, C., & Murphy, P. R. (2022). The ties that bind: The decision to co-offend in fraud. *Accounting, Organizations and Society*, 98, 101307. <https://doi.org/10.1016/j.aos.2021.101307>
41. Funnell, W., & Wade, T. (2019). *Public-sector auditing and strategic oversight*. *Accounting Forum*.
42. Gendron, Y., & Rodrigue, M. (2021). On the centrality of questioning to audit quality. *Accounting, Organizations and Society*, 92, 101240. <https://doi.org/10.1016/j.aos.2020.101240>
43. Gendron, Y., & Rodrigue, M. (2021). The dynamics of accountability: Auditing beyond compliance. *Critical Perspectives on Accounting*, 76, 102182. <https://doi.org/10.1016/j.cpa.2020.102182>
44. Grant, R. (2022). *Contemporary Strategy Analysis* (11th ed.). Wiley.
45. Grant, R. M. (2022). *Contemporary Strategy Analysis* (11th ed.). Wiley.
46. Grossi, G., & Thomasson, A. (2022). Public sector auditing in times of crisis: Governance and accountability implications. *Accounting, Auditing & Accountability Journal*, 35(1), 5–27. <https://doi.org/10.1108/AAAJ-06-2020-4633>
47. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2022). *Multivariate Data Analysis* (9th ed.). Cengage.
48. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage Publications.
49. Hair, J., Black, W., Babin, B., & Anderson, R. (2022). *Multivariate Data Analysis* (9th ed.). Cengage.
50. Hay, D., & Cordery, C. (2020). *Auditing in the public sector: Value and impact*. *Financial Accountability & Management*.
51. Hay, D., Knechel, W. R., & Willekens, M. (2021). *The value of auditing* (2nd ed.). Oxford University Press.
52. Hay, D., Knechel, W. R., & Willekens, M. (2021).

- The value of auditing: Theoretical and empirical insights. *Auditing: A Journal of Practice & Theory*, 40(3), 1–27. <https://doi.org/10.2308/AJPT-19-055>
53. Haynes, K., O'Neill, T., & Smith, J. (2020). *Behavioral dynamics in governance structures*. Public Administration Review.
54. Humphrey, C., & Scapens, R. W. (2021). Methodological pluralism in accounting research: Opportunities and challenges. *Accounting, Auditing & Accountability Journal*, 34(7), 1575–1595. <https://doi.org/10.1108/AAAJ-04-2020-4510>
55. Humphrey, C., Loft, A., & Woods, M. (2023). The future of auditing research: Challenges and opportunities. *Accounting, Organizations and Society*, 103, 101411. <https://doi.org/10.1016/j.aos.2022.101411>
56. IAASB. (2020). Quality management for firms that perform audits or reviews of financial statements, or other assurance or related services engagements. International Auditing and Assurance Standards Board.
57. IFAC. (2020). Enhancing audit quality in the public sector. International Federation of Accountants.
58. IFSWF. (2022). Annual Report and Members' Survey. International Forum of Sovereign Wealth Funds.
59. IFSWF. (2022). *Global Sovereign Wealth Fund Annual Report*. International Forum of SWFs.
60. IMF. (2020). *Public Asset Management Manual*. International Monetary Fund.
61. IMF. (2022). *Fiscal Monitor: Public Investment Efficiency*. International Monetary Fund.
62. IMF. (2022). *Fiscal Monitor: Public Investment, Assets, and Liabilities*. International Monetary Fund.
63. INTOSAI Development Initiative. (2022). Strategic audit planning and capacity development in supreme audit institutions. INTOSAI-IDI.
64. INTOSAI. (2019). INTOSAI framework of professional pronouncements (IFPP). International Organization of Supreme Audit Institutions.
65. Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The worldwide governance indicators: Methodology and analytical issues. World Bank Policy Research Working Paper No. 5430. World Bank. <https://doi.org/10.1596/1813-9450-5430>
66. Ketokivi, M., & Choi, T. (2014). Renaissance of case research as a scientific method. *Journal of Operations Management*, 32(5), 232–240. <https://doi.org/10.1016/j.jom.2014.02.003>
67. Knechel, W. R., Krishnan, G. V., Pevzner, M., Shefchik, L. B., & Velury, U. K. (2021). Audit quality: Insights from the academic literature. *Auditing: A Journal of Practice & Theory*, 40(2), 1–27. <https://doi.org/10.2308/AJPT-18-116>
68. Kokina, J., Mancha, R., & Pachamanova, D. (2021). Blockchain: Emergent industry adoption and implications for accounting. *Journal of Emerging Technologies in Accounting*, 18(1), 1–17. <https://doi.org/10.2308/JETA-2020-002>
69. KPMG. (2023). *Global sovereign funds outlook report*. KPMG Global Institute.
70. KPMG. (2023). *Global Sovereign Funds Outlook*. KPMG International.
71. Lino, A. F., Carvalho, L. B., Aquino, A. C. B., & Azevedo, R. R. (2022). Auditing reforms and institutional change in emerging economies. *Critical Perspectives on Accounting*, 84, 102367. <https://doi.org/10.1016/j.cpa.2021.102367>
72. Lombardi, R., Schimperia, F., & Paoloni, P. (2021). Digital transformation and accounting governance. *Journal of Management and Governance*, 25(4), 1015–1039. <https://doi.org/10.1007/s10997-020-09558-4>
73. Malsch, B., & Salterio, S. (2022). *Audit innovation and digital technologies*. Contemporary Accounting Research.
74. McKinsey. (2023). *Public asset management and digital transformation*. McKinsey Global Institute.
75. MENA OECD (2021). *Governance in Arab SOEs*.
76. Moll, J., & Yigitbasioglu, O. (2022). The role of digital technologies in accounting and accountability. *Accounting, Organizations and Society*, 96, 101270. <https://doi.org/10.1016/j.aos.2021.101270>
77. Moore, M. (2019). *Public value theory: Renewed foundations*. Public Administration Review.
78. NBIM. (2021). *Norges Bank Investment Management Annual Governance Review*.
79. NBIM. (2021). *Norges Bank Investment Management Annual Report*. Norges Bank Investment Management.
80. O'Flynn, J. (2021). *Revisiting public value*. Public Administration Review.
81. O'Flynn, J., & Wanna, J. (2023). Public value and public management research: Emerging directions. *Public Management Review*, 25(1), 1–20. <https://doi.org/10.1080/14719037.2022.2034370>
82. OECD. (2015). *Principles of Corporate Governance*. OECD Publishing.
83. OECD. (2021). *OECD Guidelines on Corporate Governance of State-Owned Enterprises (2015 ed., updates and reviews)*. OECD Publishing.
84. OECD. (2021). *Public sector audit and accountability*. OECD Publishing.

- https://doi.org/10.1787/1e3e0a3f-en
85. OECD. (2021). *State-Owned Enterprise Governance Review*. OECD Publishing.
86. OECD. (2022). *Public-sector asset governance and transparency*. OECD Reports.
87. OECD. (2022). *State-Owned Enterprises and Public Asset Governance in Emerging Economies*. OECD Publishing.
88. OECD. (2023). *Public governance reforms: Driving policy effectiveness and future accountability*. OECD Publishing. <https://doi.org/10.1787/9b9b5e43-en>
89. Pallant, J. (2020). *SPSS Survival Manual* (7th ed.). McGraw-Hill Education.
90. Parker, L. D. (2022). Qualitative perspectives: Advancing theory and practice in accounting research. *Accounting, Auditing & Accountability Journal*, 35(6), 1355–1380. <https://doi.org/10.1108/AAAJ-03-2021-5197>
91. Pollitt, C., & Bouckaert, G. (2017). *Public management reform: A comparative analysis—Into the age of austerity* (4th ed.). Oxford University Press.
92. Power, M. (2021). *Auditing and the dynamics of governance*. *Accounting, Organizations and Society*.
93. Power, M. (2021). Modelling the micro-foundations of audit and assurance. *Accounting, Organizations and Society*, 90, 101225. <https://doi.org/10.1016/j.aos.2020.101225>
94. Power, M. (2021). Modelling the micro-foundations of audit value. *Accounting, Organizations and Society*, 92, 101225. <https://doi.org/10.1016/j.aos.2020.101225>
95. PwC. (2022). *Closing the Public Asset Value Gap: Digital Transformation and Strategic Auditing*. PricewaterhouseCoopers.
96. PwC. (2022). *Digital auditing and value gaps in public entities*. PwC Insights Report.
97. Quick, R., & Schmidt, F. (2023). Auditing and value creation: A conceptual reassessment. *European Accounting Review*, 32(1), 89–118. <https://doi.org/10.1080/09638180.2022.2032316>
98. Quick, R., & Schmidt, F. (2023). Auditors as trust builders: The role of audit quality and communication. *Accounting in Europe*, 20(1), 1–26. <https://doi.org/10.1080/17449480.2022.2131972>
99. Rozario, A. M., & Thomas, C. (2022). Reengineering the audit process using data analytics. *Managerial Auditing Journal*, 37(2), 256–279. <https://doi.org/10.1108/MAJ-07-2020-2751>
100. Schmitz, J., & Leoni, G. (2023). Accounting and auditing in data-driven governance. *Accounting, Auditing & Accountability Journal*, 36(4), 1123–1151. <https://doi.org/10.1108/AAAJ-03-2021-5204>
101. Schmitz, J., & Leoni, G. (2023). Accounting and data-driven governance: A review and research agenda. *Accounting, Organizations and Society*, 103, 101416. <https://doi.org/10.1016/j.aos.2022.101416>
102. Scott, W. R. (2020). *Institutions and Organizations* (5th ed.). SAGE.
103. Scott, W. R. (2020). *Institutions and Organizations: Ideas, Interests, and Identities* (5th ed.). SAGE Publications.
104. Steccolini, I., Saliterer, I., & Guthrie, J. (2021). The role of auditing in public sector transformation. *Public Money & Management*, 41(6), 457–465. <https://doi.org/10.1080/09540962.2020.1769315>
105. Teece, D. (2021). *Dynamic capabilities and value creation*. *Strategic Management Journal*.
106. Temasek. (2022). *Annual Review*. Temasek Holdings.
107. Temasek. (2022). *Temasek Review 2022*. Temasek Holdings.
108. Tricker, B. (2019). *Corporate Governance: Principles, Policies, and Practices* (4th ed.). Oxford.
109. Tricker, B. (2019). *Corporate Governance: Principles, Policies, and Practices* (4th ed.). Oxford University Press.
110. UNDP. (2021). *Accountability systems and public value creation in developing countries*. United Nations Development Programme.
111. Van der Stede, W. A. (2023). Management accounting research in emerging and evolving institutional contexts. *Management Accounting Research*, 58, 100836. <https://doi.org/10.1016/j.mar.2022.100836>
112. van der Stede, W. A., Young, S. M., & Chen, C. X. (2021). Survey research in management accounting: Challenges and opportunities. *Accounting, Organizations and Society*, 90, 101205. <https://doi.org/10.1016/j.aos.2020.101205>
113. van Helden, J., Argento, D., & Grossi, G. (2021). Governance and accountability in state-owned enterprises. *Financial Accountability & Management*, 37(4), 321–340. <https://doi.org/10.1111/faam.12262>
114. Vasarhelyi, M. A., Kogan, A., & Tuttle, B. M. (2021). Big data in auditing: An overview. *Accounting Horizons*, 35(3), 1–23. <https://doi.org/10.2308/HORIZONS-19-006>

115. World Bank Independent Evaluation Group. (2020). Public sector reform: What works and why? An IEG evaluation of World Bank support. World Bank.
116. World Bank. (2018). *Benchmarking Public Assets Report*.
117. World Bank. (2021). Enhancing government effectiveness and accountability: The role of public financial management. World Bank.
118. World Bank. (2022). Supreme audit institutions and public financial governance. World Bank. <https://doi.org/10.1596/978-1-4648-1819-3>
119. World Bank. (2023). *Public Sector Performance and Asset Utilization*.
120. World Bank. (2023). Public-Sector Performance and State-Owned Asset Management in Emerging Economies. World Bank Group.
121. Yin, R. K. (2022). *Case Study Research and Applications* (7th ed.). SAGE.
122. Zott, C., & Amit, R. (2010). *Business model design and value creation*. Long Range Planning.
123. Zott, C., & Amit, R. (2020). *Business models and strategic value creation*. Journal of Management.
124. Zott, C., & Amit, R. (2020). Business models and the performance of public and private organizations. Journal of Management, 46(4), 1020–1045.