IT SERVICE GOVERNANCE ADOPTION CHALLENGES AND OPPORTUNITIES IN US-BASED MANAGED IT SERVICES INDUSTRIES

by

LESLIE OKERE

B.S., University of Maryland Global Campus, 2000

M.S., University of Maryland Global Campus, 2009

A Research Paper Submitted to the School of Computing Faculty of

Middle Georgia State University in

Partial Fulfilment of the Requirements for the Degree

DOCTOR OF SCIENCE IN INFORMATION TECHNOLOGY

MACON, GEORGIA

2024

IT service governance adoption challenges and opportunities in US-based managed IT services industries.

Leslie Okere, *Middle Georgia State University, Leslie.Okere@mga.edu*

Abstract

IT Service Governance (ITSG) is a framework of policies, processes, and controls that ensures an organization's effective and efficient management of IT services. It encompasses the strategic alignment of IT with business objectives, delivering high-quality IT services, and managing risks and resources associated with IT operations. IT operations can be internal or external service offerings by managed IT service providers. Customers choose managed IT services to leverage external expertise, improve IT performance and security, reduce costs, and focus on core business priorities. Despite the recognized benefits of ITSG practices, the managed IT services industry struggles to implement these frameworks successfully, leading to operational inefficiencies, increased risks, and possible disconnects from business objectives. This study conducts a systematic literature review of research studies published in the last fifteen years on challenges managed IT service industries experience adopting ITSG practices. First, the study gives an overview of the growth of the managed IT services industry. Then, it gives an overview of ITSG's critical success factors and identifies the top five ITSG implementation challenges in IT services industries in the United States. The study compares the results to the identified critical success factors and recommended mitigation strategies. After reviewing ten articles related to the study, the results show that leadership support, communication, training, organizational change management, and cost justification are the top five adoption challenges.

Keywords: IT service governance, managed IT services, IT support services, COBIT, ISO 20000, ITIL, IT governance

Introduction

The managed IT services industry is one of the top three growth engines within the tech industry. The growth factors in managed IT Services in the United States are driven by various reasons, such as technological advancements and complexities, scalability, cost efficiency, and increased concerns about cybersecurity. Customers increasingly seek IT services to optimize business processes, reduce costs, and enhance efficiency. Additionally, they seek solutions incorporating emerging technologies like artificial intelligence, blockchain, and the Internet of Things (IoT) for competitive advantage in a fast-evolving market (Statista, 2024). Digital transformation is propelling the convergence of networking and security as technology teams recognize the challenges of managing and protecting increasingly complex networks and the connections that support them. In a survey conducted by Keeper Security Software, 34% of respondents from the United States stated that digital transformation was one of the main cybersecurity concerns (Mordor Intelligence, 2024b). With the rise in cyber threats, organizations seek MSPs with cybersecurity expertise to enhance their security. Managed IT service providers (MSPs) face several IT service challenges, such as handling sensitive data, adhering to industry-specific regulations, and ensuring security and compliance with data protection laws. Defining and meeting service level agreements is also critical for MSPs. Clear communication, realistic expectations, and consistently delivering on commitments are essential to maintaining client trust. To overcome these challenges, MSPs need a mature IT Service Governance (ITSG) practice, proactive risk management strategies, and a commitment to ongoing improvement and innovation in their service offerings (Horton, 2016). A recent survey highlighted that while many enterprises have recognized the importance of formal ITSG practices, many have yet to adopt them (Almeida et al., 2017). In a US company survey of IT service management adoption, researchers

found that less than half of responding organizations had implemented any IT management standard or framework (Almeida et al., 2017).

Problem statement

The growth of the managed IT services industry and the digital transformation challenges managed IT services customers experience motivate the need for managed IT service providers to adopt a suitable IT governance framework and operating model. Despite the recognized benefits of ITSG practices, the managed IT services industry struggles to implement these frameworks successfully, leading to operational inefficiencies, increased risks, and a disconnect between IT and business objectives (Othman et al., 2011). Therefore, it is imperative to investigate the key obstacles hindering IT service governance adoption in the managed IT services industry and identify strategies for improving adoption rates to realize the full potential of these practices.

Purpose of the study

This study aims to identify the key challenges of adopting ITSG in managed IT service industries in the United States. The ITSG strategic framework can significantly impact managed service provider (MSP) operations by providing a structured approach to decision-making, risk management, and accountability. Implementing effective IT governance within an MSP can enhance service delivery, ensure compliance, and foster long-term relationships with existing clients while preparing for future ones. By understanding the challenges of adopting ITSG, organizations may be better equipped to plan and mitigate the identified factors.

Research questions

RQ1: What key factors affect the successful implementation or adoption of IT Service Governance frameworks in Managed IT Services Industries in the United States?

RQ2: How do these challenges compare across different industries and geographical regions?

RQ3: What mitigation strategies help address the challenges?

Literature review

The evolution of managed IT services

Since its creation, the managed services industry has experienced one of its most unique transformational stages. Considering the evolution of managed services, there have been four significant transformational stages that have shaped the managed services Industry: its inception in the late 1990s, the technology lift in the early 2000s with new software, network, and infrastructure capabilities for remote connectivity and management, the cloud in the teenage years with traditional and later hybrid offerings, and finally the consolidation, i.e., the legitimized industry through mergers and acquisitions (Blanton, 2023). TSIA's George Humphrey writes in "The State of Technology Services 2023" that managed IT service is one of the top three growth engines within the tech industry (Blanton, 2023, p. 3). The managed IT services market size is estimated at USD 280.96 billion in 2024 and is expected to reach USD 410.92 billion by 2029, growing at a CAGR of 7.90% during the forecast period 2024 - 2029 (Mordor Intelligence, 2024a). With this growth forecast and the current performance in the managed IT services industry, organizations must understand the approaches required to capitalize on this forecast (Blanton, 2023).

With the growing trend for enterprises to engage MSPs to outsource their IT-related activities, customer service demands and expectations have also increased. It is not only important for MSPs to gain customers, but it is also essential to retain them. To remain competitive and retain customers, the delivery capability of an MSP needs to be assessed in a standardized manner, which can be achieved by conceiving a maturity model for the purpose (Wattal, 2020). MSPs must prioritize IT governance over mere management; therefore, it is necessary to involve ITSG processes. While IT management involves short-term aspects and focuses on IT operations, ITSG deals with long-term and external aspects, performing and transforming IT

to meet current and future demands of the business's and stakeholders' expectations. Therefore, ITSG is no longer considered a "nice-to-have" but a "must-have" (Fernandes et al., 2021, p. 1). Effective IT governance is critical to MSP's business success because it ensures effective use of IT in a context where many firms invest in digital transformation programs, and IT-related concerns such as cybersecurity and regulatory compliance have become crucial. IT governance studies have found that firms that develop a mature IT governance scheme can outperform their competitors, and managed IT services are globally competitive (Fernandes et al., 2021, p. 4).

What is IT service governance?

IT Service Governance (ITSG) is a part of corporate governance that enables the IT function to add value to the business by controlling the risks associated with IT processes using policies and standard procedures based on documented best practices, making better use of available technology resources. IT Service provider organizations need IT service management (ITSM) and ITSG to ensure successful customer service provision. Additionally, successful ITSM requires coordination and control by ITSG (Jäntti & Hotti, 2016). ITSG's key components include strategic alignment, risk management, service management, performance measurement, compliance, and resource management (Castellanos, 2021). The operational aspect of IT Governance ensures that the organization's IT resources are used effectively, services are delivered efficiently, and IT operations contribute to the business's overall success. It also helps organizations manage risks and ensure compliance with legal and regulatory requirements, fostering a culture of accountability and continuous improvement (Ali & Green, 2012).

IT service governance frameworks and standards

Customers pressure MSPs to demonstrate how their services align with IT governance frameworks. Frameworks like ITIL (Information Technology Infrastructure Library) and standards like COBIT (Control Objectives for Information and Related Technologies), NIST CSF (National Institute of Standards and Technology Cybersecurity Framework), and ISO (International Organization for Standardization) include guidelines for the mentioned standards or other service management practices (Othman et al., 2011; Nicho & Muamaar, 2016). For instance, ITIL V4 has guidelines identified for an MSPs Service Catalog and associated ISO 20000 standards for the practice. Both frameworks and standards have documented and approved best practice guidelines for customer success, traditionally called Relationship Management, and have associated guidelines and standards for Service Delivery, including event monitoring and reporting, incident, change enablement, request fulfillment, and problem management. Both frameworks have security guidelines and standards in ITIL v4 and integrate with standards such as ISO 27001 and NIST. If an organization operates primarily within the U.S. or has specific compliance requirements tied to U.S. regulations, NIST standards may be particularly relevant.

From a more global perspective, ISO standards are widely accepted internationally (Othman et al., 2011; Nicho & Muamaar, 2016). MSPs may implement these practices in diverse areas and industries (Othman et al., 2011). For ITSG to align with GEIT, organizations should integrate the two frameworks, allowing the common practices to overlap. Using them independently prevents organizations from asserting full IT management and governance because each framework and standard has limitations in its application to managing specific IT areas (Nicho & Muamaar, 2016). Integrating frameworks and standards provide a more comprehensive and efficient approach, enabling features unavailable through individual frameworks (Nicho & Muamaar, 2016). Research shows that adopting, implementing, and conforming to the standards improves service delivery and operational performance. From a financial perspective, Marrone and Kolbe (2010) commented that organizations that implemented ITG achieved profits 20% higher than those that did not. Ultimately, results indicate that as the maturity of implementation increases, the perception of challenges decreases. Findings also show that as the maturity of implementation increases, the number of realized benefits increases, showing the importance of the applicability of ITSG, frameworks, and standards in managed services (Marrone & Kolbe, 2011).

IT service governance adoption in the US vs other regions

Though there are increased research topics on ITSG implementation strategy, adoption, and value, there is a lack of scholarly research on ITSG adoption in the US-based IT services industry. Other research discusses IT governance adoption challenges in non-US private and public sectors, and some talk about IT governance adoption challenges in general. Most research is about internal governance related to internal processes affecting internal stakeholders—however, managed IT services provide professional IT services to external clients who expect much from their managed IT service providers (Ali & Green, 2012). Additionally, diverse characteristics such as regulatory environments, business practices, and cultural factors affect businesses in non-US regions differently.

COBIT, ITIL, and ISO are the most common frameworks for IT operations and service management (Othman et al., 2011; Nicho & Muamaar, 2016). A survey revealed that 10,000 organizations worldwide have adopted and implemented ITIL, with the United States catching on in 2000, following Europe's widespread 1990 adoption. The results from the survey indicated that the ITIL initiative's top drivers were service quality (80%), cost reduction (74%), and the alignment of business and IT (64%), respectively. The results also highlighted resistance to change (78%) and unproven business value (5.5%) as the main barriers to ITIL adoption (Cox, 2013). Another study showed that several U.S. companies adopting ITIL include Procter and Gamble, Caterpillar, Federal Express, Sprint, Cox Communications, and Manulife Financial (Cox, 2013). Research observed that an estimated one-third of over a billion companies have contemplated ITIL implementation, 13% have already commenced actual deployment, and over 20,000 businesses, including government, nonprofits, and consultants, use ITIL, making it the most widely adopted IT process framework (Cox, 2013). ISACA commissioned a project through the University of Antwerp to conduct an international study on the governance of enterprise IT (GEIT) adoption using COBIT 5. The study showed that out of 894 respondents, North America was leading at 31%, Europe at 24%, Asia at 20%, and Africa and other regions below 10% (De Haes. et al., 2015). ISO conducts annual surveys of certifications to its management system standards. In 2009, the US ranked ninth among the first ten countries to adopt ISO standards (Al-Najjar & Kamel, 2011). In 2022, ISO recorded the United States ranking third amongst the top five at 17%, with India ranking first at 29%, Mexico second at 23%, Bulgaria fourth at 16%, and Brazil fifth at 15% (ISO/CASCO, 2022). Marrone et al. (2014) stated that managers select specific service management processes rather than adopt all the ITIL processes. To achieve ISO/IEC certification, organizations have to achieve operational and tactical level processes (Marrone et al., 2014).

Critical success factors to IT service governance adoption

In their exploratory research, Pollard and Cater-Steel (2009) derived critical success factors (CSF) for successful implementations, including executive leadership support, communication, collaboration and training plans, use of consultants, and careful software selection. The study also revealed three new CSFs: creating an ITIL-friendly culture, process as a priority, and customer-focused metrics. Rabbany (2017) derived similar conclusions, stating the following CSFs: having a project manager, a project champion, project governance and execution, establishing end user/customer support, training the IT staff and all stakeholders, adaptability of the IT staff to change, sufficient allocation IT staff, implementation team commitment, effective organizational change management, sufficient funding, and senior management commitment as the most significant factors (Rabbany, 2017). A study by Othman & Chan (2013) proved the critical success factors by identifying the following barriers to ITSG adoption internationally: resistance to change, complexity, organizational politics, lack of knowledge and skills, lack of middle management support, and receptivity to internal or external mandates.

Methodology

PICOC criteria: keywords and synonyms

The systematic search process of this review follows the methodology described by Carrera-Rivera et al. (2022). A framework called PICOC has been used to formulate the research question. The acronym PICOC

stands for Population and their problem, Intervention or Issue, Comparative Intervention, Outcomes or themes, and Context (Carrera-Rivera et al., 2022). The scope and the parts of the research question are determined using this framework, as shown in Table 1. Formulating the research question helps identify the important keywords by translating the research question into its relevant search concepts (Carrera-Rivera et al., 2022).

Digital Library Sources

To ensure high-quality results, searches were conducted on the following databases: EBSCOhost, Galileo, Semantic Scholar, ACM Digital Library, ProQuest, Google Scholar, ResearchGate, ScienceDirect, and Computer Source.

Inclusion and exclusion criteria

The digital library research applied date restrictions, and the articles chosen were in English and dated from the current to the last fifteen years; then, the data extraction steps applied added filtering to obtain relevant articles for the study. The first filter extracted articles based on forward and backward citation searching from key articles found. Other filters were applied by scanning titles and abstracts with the terms in Table 1 while adhering to the exclusion criteria in Table 2 to find relevant articles or literature reviews with empirical data. The final filter included searching for studies done on US-based technology industries. All research conducted on foreign industries was excluded from the review.

Search query and quality assessment

Table 3 shows the keywords adopted with the "AND" and "OR" operators to find articles related to the search concepts. The articles found were further synthesized using the quality assessment questions represented in Table 4 to select those related to the research topic.

Data Analysis

The data gathered did not include case studies from US-based IT services industry adopters; rather, the research data was obtained from US-based IT professionals employed by the IT organizations and who are members of professional governance bodies such as ISACA, Axelos, and itSMF, which significantly reduced the number to nine related articles. These bodies involve IT practitioners worldwide from various organizations with professional experience levels. The studies showed that IT industries in the US were generally slower than their counterparts in other countries in adopting or implementing ITSG practices. If they did complete the implementation, they kept their experiences as internal intellectual property. Most IT support industries also completed partial implementations focused solely on service operations practices such as incident, request, change, and problem management. They opted not to implement the strategic areas. Additionally, some IT service providers designed and implemented their customized ITSM frameworks, such as IBM Service Management and Microsoft Operations Framework (MOF), and publicized their strategy rather than share case studies of their challenges.

Table 1

PICOC (population, intervention or issue, comparative intervention, outcomes, and context) table

	Criteria	Description	Synonyms
P	Population and their problem	Population • Information Technology Service Governance • Managed IT Services industries in the North America • Managed IT Service Providers in North America Problem • Adoption challenges	• ITSG • ITG • ITSM • COBIT • ITIL • ISO 20000 • IT Support Service • IT Service Governance • IT Service Management • Managed IT Services • Managed Service Provider(s) • Implementation • Success • Failure
I	Intervention and issue	Intervention • Addressing the critical success factors Issue: • Not addressing the critical success factors	• CSF • Benefits
C	Comparative intervention	• The comparison part may not be as applicable in this context, as the focus is on challenges rather than comparing interventions.	
O	Outcomes	• Identification of strategies to overcome the challenges	• Organizational performance • Increased revenue
C	Context	• regulatory environment, • technological landscape • customer experience	

Table 2

Inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Period	2009 – 2024	Articles before 2009
Language		Articles not in English
Type of Literature		Newsletters, government
Type of source	Full text, Reports, articles from conferences or journals, thesis, case studies, and dissertations	Not peer-reviewed, abstracts, editorials
Region	Worldwide	It does not include North America or the United States
Accessibility		Not accessible
Relevance to research questions		Not relevant to at least two research questions

Table 3

Research queries

Search concepts	Synonyms
IT Service Governance adoption challenges	((("IT" OR "information technology") AND ("governance" OR "service governance" OR "service management")) OR ITG OR ITSG OR ITSM) AND (adoption OR implementation) AND challenges
COBIT implementation case study	("COBIT" OR "Control Objectives for Information and Related Technologies") AND (adoption OR implementation) AND case study
ITIL implementation case study	("ITIL" OR "Information Technology Infrastructure Library") AND (adoption OR implementation) AND case study
ISO 20000 implementation case study	("ISO" OR "International Organization for Standardization" OR "ISO 20000" OR "ISO/IEC 20000") AND (adoption OR implementation) AND case study

Table 4

Quality assessment checklist

QA Question	QA Likert Scale
Is the study directly relevant to ITSG or framework adoption challenges?	1 – Yes, 2 – Partially, 3 - No
Is there an explicit connection between the research findings and challenges faced by North American, US-based IT services organizations adopting ITSG or frameworks?	1 – Yes, 2 – Partially, 3 - No
Does the study comprehensively review existing literature on ITSG adoption challenges?	1 – Yes, 2 – Partially, 3 - No
Does the study appropriately reference and have up-to-date literature on ITSG or framework adoption challenges?	1 – Yes, 2 – Partially, 3 - No
Does the study discuss practical implications providing insights for practitioners dealing with ITSG or framework adoption challenges?	1 – Yes, 2 – Partially, 3 - No
Does the study suggest clear recommendations or strategies based on the research findings?	1 – Yes, 2 – Partially, 3 - No
Is the study concerning ITSG adoption current?	1 – Yes, 2 – Partially, 3 - No

Results

The study's findings on ITSG adoption challenges revealed that of all the critical success factors (CSFs) in other industries, foreign and otherwise experienced, the top five for US-based IT service industries are executive leadership and management support as top CSFs, inter-team cooperation and collaboration, inadequate organizational change management to promote culture and acceptance of changes, lack of ITSG knowledge and skills among the management and staff, and justification of a large investment, which includes GAP and cost-benefit analysis. This finding is not different from other international or non-IT research completed on the topic. Table 5 maps the implementation challenges found to the critical success factors identified. Table 6 maps the challenges to the related articles.

Our study underscores the pivotal role of leadership and governance structures in driving successful ITSG adoption and implementation. It emphasizes the need for clear roles and responsibilities, effective decision-making processes, and ongoing communication, echoing the findings of Pollard and Cater-Steel (2009) and Othman et al. (2011). As the driver of overall governance, leadership is crucial in linking GEIT to ITSG, providing oversight over the Managed IT Service teams (De Haes. et al., 2015). All articles support that consistent senior management support is the most important requirement for a successful ITSG implementation and emphasize that the implementation initiatives must align with the corporate strategy to secure executive support before proceeding (Pollard & Cater-Steel, 2009)

The study supports research done by Othman et al. (2011), showing that organizational change management (OCM) is another critical barrier to ITSG adoption and implementation. Othman et al. (2011) acknowledged that resistance to change is an ITG barrier defined as the adverse reaction to a proposed change which may manifest itself in a visible, overt fashion (such as through sabotage or direct opposition) or may be less obvious and covert (such as relying on inertia to stall and ultimately kill a project).

Table 5

ITSG adoption challenges to Critical Success Factors mapping.

Index	Challenges	Matching CSF
C1	Senior management support	Top management support
C2	Inter-team cooperation or collaboration	Communication, collaboration, and training
C3	Inadequate OCM practices	ITSG friendly culture
C4	Lack of ITSG knowledge, skills, or benefits	Training and staff awareness
C5	Justification of large investment	Top management support
C6	Ineffective process design	Customer-focused metrics
C7	Lack of proper documentation	Interdepartmental communication and collaboration
C8	Maintaining momentum/progress stagnates	Top management support
C9	Too complex or implementation is too difficult	Process as a priority before tools
C10	Lack of resources - determines reliability	Top management support
C11	Lack of end-user customer support	Use of consultants
C12	Dedicated project team	Top management support
C13	Costly and time-consuming	Timing and careful selection of an itsm 'toolset'
C14	Inadequate implementation approach	Use of consultants
C15	Lack of adequate process assessment tools	Use of consultants

Table 6

Top 5 ITSG adoption challenges and sources

Index	Serrano et al. (2021)	Ahmad et al. (2020)	Shaw (2020)	Rabbany (2017)	De Haes et al. (2016)	Marrone et al. (2014)	Cox (2013)	Marrone and Kolbe (2011)	Marrone and Kolbe (2010)	Total
C1	x	x	x	x	x	x	x	x	x	9
C2	x	x	x	x	x			x	x	7
C3	x	x	x	x	x			x	x	7
C4		x			x	x	x	x	x	6
C5	x	x	x	x			x			5

Pollard and Cater-Steel (2009) list inter-team cooperation and collaboration as CSFs. Othman et al. (2011) list them as separate barriers; this study shows that lack of inter-team cooperation and collaboration are manifestations of resistance to change. Pollard & Cater-Steel (2009) and Othman et al. (2011) emphasize executive leadership support as the top critical success factor in implementing ITSG practices because leadership drives organizational culture, and attitude to change is an important aspect of an organization's culture. To adopt a substantial change, leadership should prepare the staff by defining a vision, motivating

the teams, and keeping the momentum to realize an organizational culture of excellence (Shaw, 2020; Serrano et al., 2021).

The study shows that understanding the return on implementation investment, justifying the expense, and not understanding the benefits, though listed as barriers, are also root causes of the lack of executive and management leadership support, which aligns with Pollard & Cater-Steel (2009). Perceived usefulness (PU) and perceived ease of use (PEOU), including the variables need, cost-effectiveness, and reliability, are possible factors influencing IT decision-makers to adopt ITSG from a technology perspective (Cox, 2013). Pollard & Cater-Steel (2009) recommended a GAP analysis, cost-benefit analysis, planning processes before planning the technology, using a dedicated project team with a project sponsor, and using agile project delivery methods to help address this challenge.

A lack of ITSG knowledge and skills, or ITSG benefits, is one of the top five key ITSG barriers that support prior studies. Othman et al. (2011) stated that unfamiliarity with standards, best practices, or strategies often promotes adoption and implementation resistance. ITSG changes how employees work, creating a change-resistant environment. This challenge transcends to any organization where employees are comfortable with how they work but feel uncomfortable with change. Communication and training plans were cited as CSFs that increase user adoption and acceptance (Pollard & Cater-Steel, 2009; Othman et al., 2011; Shaw, 2020). Training will enable collaborators to gain the proper knowledge of the processes, increase their maturity, and improve their metrics, making the ITSM processes more efficient (Serrano et al., 2021).

Conclusion

This study shows that IT Service providers have implemented and benefited from ITSG. Those who did not complete or failed the implementation had the same or similar negative experiences as other organizations, regardless of region. The gathered literature agrees that addressing the top ITSG adoption challenges and aligning ITSG objectives with the IT services organization's and its customers' strategic goals will help address the other observed adoption challenges. ITSG adoption presents managed IT services organizations with opportunities to enhance service quality, optimize costs, mitigate risks, align with business goals, enhance agility, gain competitive advantage, and foster continuous improvement. By embracing these opportunities and effectively leveraging ITSG, MSP organizations can overcome challenges and successfully manage their IT services. This study contributes to the growing literature on IT service governance by providing empirical insights into the challenges and opportunities associated with ITSG adoption. By comparing the findings to existing literature and highlighting unexpected outcomes, the study offers valuable insights for practitioners and researchers seeking to enhance ITSG practices and drive IT services organizational success.

Limitations

The scope of the study was to examine the challenges of ITSG adoption in managed IT services industries in the United States. Most of the literature found was generic, making limiting the results strictly to managed IT services industries challenging. Though the adoption level of ITSG in the United States has increased, the literature lacks case studies from specific IT service organizations in the US. Other studies involved a population of IT professional members of the itSMF (IT Service Management Forum) and ISACA (Information Systems Audit and Control Association).

Recommendations for future study

This research study reviewed the literature on factors influencing the stagnation of adopting ITSG practices in managed IT services industries in the United States. The participants in the literature were professionals of a member-based organization dedicated to promoting best practices in ITSM, but the data did not include information from specific organizations. Future research could be case studies from selected managed IT services organizations, also known as professional services organizations, for practical relevance and applicability to the identified challenges and CSFs.

References

Ahmad, N., Rabbany, M. G., & Ali, S. M. (2020). Organizational and human factors related challenges to ISO 20000: Implications for environmental sustainability and circular economy. *International Journal of Manpower*, *41*(7), 987–1004. https://doi.org/10.1108/IJM-08-2019-0374

Ali, S., & Green, P. (2012). Effective information technology (IT) governance mechanisms: An IT outsourcing perspective. *Information Systems Frontiers*, *14*(2), 179–193. https://doi.org/10.1007/s10796-009-9183-y

Almeida, R., Pinto, P. L., Lourinho, R., & Mira da Silva, Ph.D., M. (2017). Using Visual Models for Adopting IT Governance Practices. *ISACA*. https://www.isaca.org/resources/news-and-trends/industry-news/2017/using-visual-models-for-adopting-it-governance-practices

Blanton, J. (2023). *The State of Managed Services 2023* (p. 3) [Research Report]. Technology & Services Industry Association, USA. http://www.tsia.com

Carrera-Rivera, A., Ochoa, W., Larrinaga, F., & Lasa, G. (2022). How-to conduct a systematic literature review: A quick guide for computer science research. *MethodsX*, *9*, 101895. https://doi.org/10.1016/j.mex.2022.101895

Castellanos, W. S. (2021). Impact of Information Technology (IT) Governance on Business-IT Alignment: Impacto del gobierno de las Tecnologías de Información (TI) en el alineamiento entre negocio y TI. *Cuadernos de Gestión*, *21*(2), 83–96. https://doi.org/10.5295/cdg.180995ws

Cox, D. S. Z. (2013). *Factors influencing adoption of information technology infrastructure library: Utilizing the technology acceptance model (TAM)* [Ph.D., Capella University]. https://www.proquest.com/docview/1328395733/abstract/39AFCCC229FB4EB7PQ/11

De Haes, Ph.D., S., Anant, Ph.D., J., & Van Grembergen, Ph.D., W. (2015). State and Impact of Governance of Enterprise IT in Organizations: Key Findings of an International Study. *ISACA*, *4*(2015). https://www.isaca.org/resources/isaca-journal/issues/2015/volume-4/state-and-impact-of-governance-of-enterprise-it-in-organizations-key-findings-of-an-international-st

De Haes, S., Huygh, T., Joshi, A., & Van Grembergen, W. (2016). Adoption and Impact of IT Governance and Management Practices: A COBIT 5 Perspective. *International Journal of IT/Business Alignment and Governance*, *7*, 50–72. https://doi.org/10.4018/IJITBAG.2016010104

Fernandes, P., Pereira, R., & Wiedenhöft, G. (2021). Information Technology Governance and the individuals' behavior: A cross-sectional study. *Australasian Journal of Information Systems*, *25*. https://doi.org/10.3127/ajis.v25i0.3141

Horton, C. (2016, December 9). The five biggest challenges facing MSPs. *Channel Pro*. https://www.proquest.com/compscijour/docview/1847520345/abstract/FC5F7F63CFD84D84PQ/5

Jäntti, M., & Hotti, V. (2016). Defining the relationships between IT service management and IT service governance. *Information Technology and Management*, *17*(2), pp. 141–150. https://doi.org/10.1007/s10799-015-0239-z

Marrone, M., Gacenga, F., Cater-Steel, A., & Kolbe, L. (2014). IT Service Management: A Cross-national Study of ITIL Adoption. *Communications of the Association for Information Systems*, *34*. https://doi.org/10.17705/1CAIS.03449

Marrone, M., & Kolbe, L. (2010). ITIL and the Creation of Benefits: An Empirical Study on Benefits, Challenges and Processes. In *18th European Conference on Information Systems, ECIS 2010*.

Marrone, M., & Kolbe, L. M. (2011). Impact of IT Service Management Frameworks on the IT Organization. *Business & Information Systems Engineering*, *3*(1), pp. 5–18. https://doi.org/10.1007/s12599-010-0141-5

Mordor Intelligence. (2024a). *Managed Services Market Size & Share Analysis—Growth Trends & Forecasts (2024—2029)*. https://www.mordorintelligence.com/industry-reports/global-managed-services-market-industry

Mordor Intelligence. (2024b). *United States Managed Services Market Trends*. Mordor Intelligence. https://www.mordorintelligence.com/industry-reports/united-states-managed-services-market/market-trends

Nicho, M., & Muamaar, S. (2016). Towards a Taxonomy of Challenges in an Integrated IT Governance Framework Implementation. *Journal of International Technology & Information Management*, *25*(2), 1–31. https://doi.org/10.58729/1941-6679.1266

Othman, M., Chan, T., Foo, E., & Timbrell, G. (2011). Barriers to information technology governance adoption: A preliminary empirical investigation. In K. S. Soliman (Ed.), *Knowledge Management and Innovation—A Business Competitive Edge Perspective: Proceedings of the 15th International Business Information Management Association Conference* (pp. 1771–1787). International Business Information Management Association. https://eprints.qut.edu.au/44185/

Pollard, C., & Cater-Steel, A. (2009). Justifications, Strategies, and Critical Success Factors in Successful ITIL Implementations in U.S. and Australian Companies: An Exploratory Study. *IS Management*, *26*, pp. 164–175. https://doi.org/10.1080/10580530902797540

Rabbany, M. G. (2017). *Challenges in implementation of ISO 20000 in IT service management organizations—A case study*. http://lib.buet.ac.bd:8080/xmlui/handle/123456789/4782

Serrano, J., Faustino, J., Adriano, D., Pereira, R., & da Silva, M. M. (2021). An IT Service Management Literature Review: Challenges, Benefits, Opportunities and Implementation Practices. *Information*, *12*(3), Article 3. https://doi.org/10.3390/info12030111

Shaw, K. (2020). *Prioritizing Information Technology Infrastructure Library (ITIL) Implementations and Identifying Critical Success Factors to Improve the Probability of Success* [D.I.T., Capella University]. https://www.proquest.com/docview/2458732366/abstract/8DE3499521724C70PQ/3

Statista. (2024). *IT Services—United States | Statista Market Forecast*. Statista. https://www.statista.com/outlook/tmo/it-services/united-states

Wattal, S. (2020). Maturity Model for IT Managed Services. *IOP Conference Series: Materials Science and Engineering*, *804*(1), 012044. https://doi.org/10.1088/1757-899X/804/1/012044