

**OPERATIONAL EXCELLENCE: LEADERSHIP, IT STRATEGY,
RESOURCE MANAGEMENT, AND GLOBAL BUSINESS PERFORMANCE****Basil Obute**

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Alberta, Canada.**ABSTRACT**

The objective of this paper is to analyze what drives organizations toward operational excellence by utilizing: Transformational Leadership; Strategic Alignment of IT; Effective Use of Resources; and Responsiveness to Dynamic Global Environment. Utilizing a literature review based on peer-reviewed articles (2019-2023), the authors develop a multi-dimensional model of high performance in organizations. Results show that the type of leadership has the greatest impact on the successful adoption of IT as well as on the quality of resource utilization. Frameworks such as COBIT 2019, ITIL v4, and Agile Methodologies are used to translate strategic direction into an organization's ability to deliver its operational capabilities. Resource Management - encompassing all types of resources available to an organization (Human, Financial, Technological, Informational) act as a mediator in the relationship between strategic direction and results. Organizations must adapt their structures in response to the dynamic nature of global factors (Geopolitical Uncertainty, Digital Disruption). In order to provide a theoretical foundation for this research, the authors have developed an Operational Excellence Integration Model (OEIM) illustrating causal relationships connecting the four identified dimensions to sustainable competitive advantage. Some limitations include: Secondary Data utilized throughout the research and a lack of empirical evidence from specific sectors.

Keywords:

Operational Excellence, Leadership, IT Strategy, Resource Management, Global Business Performance, Digital Transformation

1. INTRODUCTION

A time characterized by escalating disruption from technological advancements, unstable geopolitics, and heightened global competitive pressures, achieving operational excellence is now a strategic necessity for companies worldwide and across every industry. As Hossain et al. (2022) define it, operational excellence is generally described as the continued improvement of processes, people, and technology to achieve superior performance through the systematic pursuit of betterment, consistent with organizational strategy. While operational excellence can be viewed as an initiative focused on efficiency, it can also be considered as a broad-based based organizational-wide, systemic effort encompassing the entire organizational ecosystem (e.g., leadership philosophy, IT governance, resource stewardship, etc.) as well as the organization's ability to adapt and compete in increasingly complex international markets.

The dynamic interactions among the three critical elements of leadership, IT Strategy, and Resource Management have been an area of great interest to scholars for a number of years. Yet, there continue to be many areas of significant gaps in understanding how the three critical elements work together to produce long-term performance results. The vast majority of current research focuses on one element at a time; that is to say, the bulk of leadership research addresses models of leader behavior and organizational culture. Research related to IT strategy focuses on governance frameworks and the digital transformation process. Additionally, most of the research related to resource management is focused on operations and supply chain management (Stair & Reynolds, 2023; Leavy, 2021). Therefore, this fragmented approach to studying performance improvement strategies inhibits the practitioner community from developing comprehensive performance improvement programs.

This paper fills that gap through the development of a theoretical and analytical model of Operational Excellence Integration (the Operational Excellence Integration Model; the OEIM), which illustrates causal and

mediating relations among Transformational Leadership, Information Technology Strategy Alignment, Resource Management Efficiency, and Global Business Performance. The OEIM was developed from an integrated literature review of forty peer-reviewed articles, as well as three theoretical anchors: the Resource-Based View (RBV), the Strategic Alignment Model (SAM), and the Dynamic Capabilities Theory. As such, this paper will provide both theoretical and practical insight to executives, IT strategists, and policy makers who seek to develop resilient, high-performing organizations.

The rest of this paper will be broken into the following sections: Section 2 covers how I gathered my data; Section 3 presents information about what influences performance through leadership excellence; Section 4 presents the relationship between IT Strategy Alignment and performance; Section 5 presents various aspects of Resource Management that affect performance; Section 6 presents the Global Business Performance Contexts in which performance occurs; Section 7 presents the OEIM and provides an explanation for the implications of the model; Section 8 identifies some of the limitations to this study; and Section 9 provides conclusions to this study along with recommendations for future studies.



Figure 1: Operational Excellence Framework - Integrated Pillars

2. METHODOLOGY

This study utilizes an integrative literature review (ILR) as a methodology to integrate theoretical and empirical literature to create a conceptual framework or new view of operational excellence (Torraco, 2016). In comparison to the typical, narrative literature review, the ILR uses a structured process for determining the literature sources to include, establishing inclusion criteria, and identifying and coding themes. Therefore, it can provide a more systematic and transparent representation of the body of literature than a traditional literature review. An ILR is also useful when dealing with cross-disciplinary topics such as operational excellence. Operational excellence has existing literature from multiple disciplines (management science, information systems, organizational behavior, and global business studies) and therefore is well-suited for an ILR.

A Boolean search string was applied to five electronic databases (Web of Science, Scopus, EBSCO Business Source Complete, IEEE Xplore, and Google Scholar) using the search terms "operational excellence," "leadership and organizational performance," "IT strategy alignment," "resource management efficiency," and "global business performance" to identify all the literature available relative to this topic. Only articles published from 2019 to 2023 were considered as they represented the most recent and relevant literature for this area of study. A total of 312 possible documents were identified as being eligible for use as a starting point for analysis. After excluding all non-peer-reviewed articles and articles that did not examine at least two of the study dimensions, and those where access to the full article was denied, a total of 40 articles were retained for further analysis. The articles were analyzed using thematic analysis as described by Braun and Clarke (2006) and consisted of a six-phase model that was modified to meet the needs of a literature review. Codes were generated based on the content of the literature source(s) during Phase I of the thematic analysis. These codes were then grouped together and connected to one of the four conceptual pillars of the study. The thematic map generated from the analysis served as the basis for the development of the OEIM. The authors acknowledge the limitations of this study, including potential publication bias towards positive findings as well as the lack of grey literature (Section 8). The authors also provided support for the methodological rigor of this study through the application

of established theoretical frameworks (the Resource-Based View (Barney, 1991); the Henderson and Venkatraman (1993) Strategic Alignment Model; and Teece et al.'s (1997) Dynamic Capabilities framework) to facilitate the understanding and context of the emerging themes from the literature review.

3. LEADERSHIP EXCELLENCE AS A DRIVER OF OPERATIONAL PERFORMANCE

3.1 Transformational Leadership and Performance

Transformational leadership, defined by articulating a compelling vision, encouraging intellectual stimulation, providing individualized support, and serving as a role model (Bass & Riggio, 2006), has generally had the largest positive impact on organizational performance outcomes (Leavy, 2021) based upon empirical research into different types of leadership styles. In addition, research suggests that transformational leaders create an environment of psychological safety for employees, promoting creativity, fostering a culture of calculated risk-taking, and viewing failure as a learning opportunity for personal and professional growth and development. These characteristics of a work culture are essential for developing the necessary organizational culture for the successful execution of digital transformations due to the level of uncertainty and required agility inherent in such changes.

The relationships between Transformational Leadership & IT Adoption have been empirically supported over time. Mithas et al. (2013) found that organizations with transformational, digitally oriented leaders are much more likely to adopt advanced analytics, cloud computing, and AI than are organizations with transactional or laissez-faire managers. This is due to transformational leaders' ability to better articulate the strategic value of investing in technology, which results in an organization's buy-in for the investments and less resistance to change. The transformational leader's ability to build a common vision, which incorporates both the human & technological elements, provides the potential for a more unified approach to developing a digital roadmap.

Transformational Leadership isn't all of one type. The ambidextrous style of leadership is an evolution of Transformational Style of Leadership and Transactional Management - in its ability to be both exploratory (new ideas) and exploitative (efficiency), this style of leadership is gaining popularity in industries that are High Technology and Knowledge Intensive (Rosing et al., 2011). An ambidextrous leader will have the ability to create new innovative products or services and then operationalize them into a process that can be repeated over time, thus creating a scalable model. In the area of IT Strategy, this ability to innovate while maintaining current systems (explore and exploit) is critical, as it is necessary for organizations to continue to use their existing IT systems while investing in future generations of systems.

Table 1: Comparison of Leadership Styles and Their Impact on IT Alignment and Performance

Leadership Style	Key Characteristics	IT Alignment Impact	Performance Outcome
Transformational	Vision-driven, inspirational, change-oriented	High - champions digital transformation	Innovation, agility, market competitiveness
Transactional	Performance-based rewards, structured processes	Moderate - supports process optimization	Efficiency gains, cost reduction
Servant	Empathy-led, employee-first approach	Moderate - nurtures IT talent retention	Employee satisfaction, knowledge sharing
Ambidextrous	Balances exploration and exploitation	High - aligns IT investment with dual goals	Sustained growth, adaptive capacity

3.2 Leadership Competencies for the Digital Age

The "ecosystem for developing leaders" (Sustainable operational excellence) will require more than just a "visionary" CEO, as Sull et al. (2017) have shown that those companies that have developed a formal, structured digital leadership training program for their middle managers have seen, on average, 34% higher technology adoption rates than those without. Therefore, there are significant organizational implications from digital leadership that exist far beyond the C-Suite. The Middle Managers perform a critical "translation function" and translate the overall digital strategy established at the top level of the company into departmental operating objectives and oversee the day-to-day human element of implementing technologies.

Companies with the CIO/CTO reporting to the CEO are structurally positioned so that "digital leadership" is deeply ingrained in the hierarchical structure of the company. As such, the CIO/CTO will be able to ensure that IT-related issues are addressed during all strategic-level discussions among senior executives. Executives who

possess digital literacy will be better equipped to assess the value of IT investments, communicate technical strategies to multiple stakeholder groups, and reduce information security risks through informed governance decisions (Whitman & Mattord, 2018). Digital literacy refers to the strategic integration of technical knowledge with an organization's vision, not simply possessing technical skills or capabilities.

As such, the emerging competencies that will be expected of organizational leaders represent a fundamental paradigmatic shift from the typical leadership competencies associated with organizational leaders. While traditional leadership competencies such as strategic thinking, communication, and decision making will remain relevant, these competencies must now be augmented with new competencies such as digital literacy, data-driven decision-making, cybersecurity awareness, and leading hybrid and geographically dispersed teams (Whitman & Mattord, 2018). Therefore, the concept of "digital leadership" has emerged as a scholarly construct that defines the role of the executive in establishing and supporting technology-enabled transformations within organizations.

4. IT STRATEGY ALIGNMENT AND ORGANIZATIONAL CAPABILITY

4.1 Theoretical Foundations of IT-Business Alignment

Alignment between a firm's IT and business strategies is one of the oldest, and arguably one of the most important areas of study within the field of Management Information Systems (MIS). Henderson and Venkatraman's (1993) SAM model illustrated that firms achieve high-performance levels when there is strategic alignment at both vertical and horizontal levels – within and between an organization as well as between the business and IT functions. Over the past decades, numerous studies have supported this idea using samples from many different types of firms (e.g., large vs. small), industries, and geographically dispersed locations (Luftman et al., 2017). As shown in Figure 2, the relationship between IT strategy and business strategy is a two-way street.

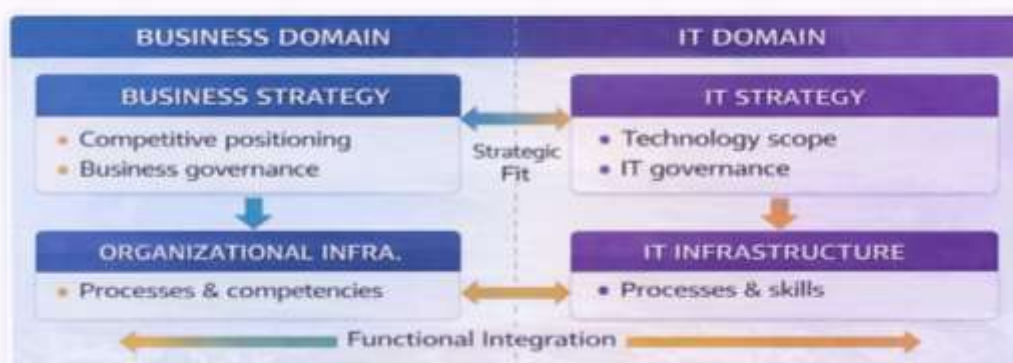


Figure 2: IT-Business Strategic Alignment Model (Henderson & Venkatraman, 1993)

As the field of IT alignment scholarship has progressed beyond its roots in the original Strategic Alignment Model (SAM), it has taken into account how digital strategy is being changed by both the fast-changing nature of emerging technologies (e.g., Cloud Computing; Big Data Analytics; Artificial Intelligence; Internet of Things (IoT)) and their ability to create a new paradigm for co-evolution of business and technology. Instead of supporting business strategies with technology, this new paradigm is allowing technology to be a driver in changing business strategy (Bharadwaj et al., 2013). Thus, the field needs a new model of alignment that can accommodate these changes at a faster pace than traditional models of alignment, allow for more iterations in terms of revising strategy, and remove or blur the traditional lines separating IT from other functions within the organization.

According to Bharadwaj et al. (2013), and further elaborated on by Stair and Reynolds (2023), the strategic approach to "digital business" suggests that as organizations become increasingly "digitally mature", the strategic approaches to using information technology (IT) will begin to integrate into the organizational business strategy. This is a paradigm where the decisions made regarding the use of technology cannot be separated from the design of the firm's business model; therefore, the Chief Information Officer (CIO) becomes a co-strategic partner to both the CEO and CFO in developing the firm's overall business strategy. Galliers and Leidner (2021) found empirically that organizations that have a highly integrated digital strategy experienced 27% greater revenue growth and 19% less in total operating expense, during a five-year time frame, than organizations that

continued to separate their IT and business strategies, supporting the argument that integration can serve as a leverage point to improve organizational performance.

4.2 IT Governance Frameworks and Operational Effectiveness

The structure and process-based "scaffolding" that is provided by effective IT governance enables the institutionalization of strategic IT-business alignment. Among the most commonly implemented IT governance frameworks is COBIT 2019 (Control Objectives for Information and Related Technologies), which has been recognized as one of the best overall IT governance frameworks available in terms of its broad coverage of governance objectives, risk management, regulatory compliance, and performance measurement (ISACA, 2022). The performance measurement system of COBIT 2019 allows organizations to measure their IT governance maturity using six domains. Therefore, it offers a structured approach to improve their IT governance continuously. Due to the fact that compliance with regulations is imposed in many regulated industries, such as banking or healthcare, the applicability of COBIT 2019 extends to these areas, in which high standards regarding the quality of IT governance have to be met due to compliance requirements.

ITIL Version 4 is an extension of governance models as it provides a Service Management Lifecycle model for managing IT services and creating Business Value. The ITIL 4 Service Value System has combined all the ITIL 4 practices along with guiding principles and continual improvement methods in one integrated model and has established a direct link between IT Service Performance and Organizational Outcomes (Axelos, 2022). Organizations that implement all of the ITIL V4 practices see measurable results in service availability, mean time to resolve incidents, and customer satisfaction, which can then be used to measure the overall performance of their operations.

A paradigmatic shift is occurring in how IT strategies are executed; specifically, within software-intensive organizations and digital service providers, through the implementation of agile and DevOps methodologies. As an example, the nature of agile methodology, as opposed to traditional project-based methodologies, focuses on iterations of development, includes cross-functional teams, and emphasizes user-centricity; all contributing to reducing "time to market", improving product quality, and responding to changes in business needs at a faster rate (Smartsheet, 2023). An additional benefit to implementing agile methodologies is its extension through the inclusion of DevOps methodologies that provide for the integration of development and operational components, which results in the creation of continuous integration and deployment (CI/CD) pipelines and significantly accelerates the ability to deliver IT capabilities. Therefore, the combination of agile and DevOps methodologies has created an opportunity for organizations to differentiate themselves from their competitors based on their level of responsiveness.

Table 2: Comparative Analysis of Major IT Strategy Frameworks

Framework	Core Focus	Organizational Benefit	Limitation
COBIT 2019	IT governance and management	Risk management, regulatory compliance	Implementation complexity
ITIL v4	Service management lifecycle	Service delivery alignment, reduced downtime	Resource-intensive adoption
TOGAF	Enterprise architecture	Strategic IT-business integration	Requires specialist expertise
Balanced Scorecard	Performance measurement alignment	Links IT KPIs to business objectives	Lagging indicator focus
Agile/DevOps	Iterative delivery, continuous integration	Speed-to-market, responsiveness	Governance coordination challenges

4.3 Information Security as a Strategic IT Imperative

Information security is no longer limited to operational and technical considerations; it has evolved into a primary strategic component of IT governance and risk management for businesses. The increased digitalization of organizational processes and interactions with customers and suppliers exposes the organization to a vast increase in cyber-attack potential, creating systemic risks that could destroy years of investments in operational excellence in a single security breach. In defining information security management, Whitman and Mattord (2018) stated that information security management is the process of identifying, classifying, and protecting an organization's information assets from threats and vulnerabilities through policy, technical, and human controls; thereby emphasizing the inherent strategic and multi-disciplinary nature of information security management.

The financial and reputational impacts of subpar cybersecurity have been widely reported on. A study by IBM titled "Cost of a Data Breach" in 2023 found that the average loss resulting from a data breach was approximately \$4.45 million; however, those breaches occurring in heavily regulated sectors, for example, healthcare and finance, were significantly more costly than average at two to three times the cost. In addition to the monetary loss associated with a security breach, an organization's ability to establish and maintain trust among its customers is also negatively impacted. Further, in addition to potential monetary loss, organizations may incur significant regulatory fees and experience disruptions to business operations that will require significant time to recover from. As a result of these factors, many organizations are making it a priority to include security considerations in all layers of the organization's overall IT strategy, including but not limited to architecture design, vendor selection, employee training, and incident response planning.

Whitman and Mattord (2018) argue in favor of an asset-based, risk-focused model of information security that focuses on those information assets most critical to the organization and those most vulnerable to cyber threats, allowing organizations to make informed, cost-effective decisions about how to invest in security, rather than spreading their security investments across all assets. By integrating information security into the organizational IT governance structure, and specifically through the "risk" domain of the COBIT 2019 governance framework, organizations create a comprehensive and integrated means of governing information security on an ongoing basis. Organizations that govern security as a key component of governance are far more likely to be resilient to both internal and external threat actor activity compared to organizations that govern security solely from a regulatory/compliance perspective.

5. RESOURCE MANAGEMENT AND OPERATIONAL EFFICIENCY

5.1 Theoretical Grounding: Resource-Based View

The Resource-Based View (RBV) of the firm was initially conceptualized by Penrose (1959) and then formalized as a theory by Barney (1991). According to this theory, an organization's competitive advantage is a sustainable one if it possesses and effectively deploys resources that are valuable, rare, inimitable, and non-substitutable (i.e., VRIN). As viewed through the lens of the RBV, achieving operational excellence is first and foremost a matter of managing resources: organizations that best configure, develop, and utilize their unique, diverse, and heterogeneous bases of resources will generally achieve superior performance relative to competitors operating within the same competitive environment. The framework has been used to understand and explain why there are significant differences in the performance of various types of IT-intensive firms; many of the technologies and knowledge-based resources used in these types of firms meet VRIN criteria.

Dynamic Capability Theory (Teece et al., 1997) expands on the RBV and explains how organizations can continue to gain a competitive advantage as their environment changes by developing the ability to identify opportunities/threats, and then take action on them; this capability is dynamic because it enables the organization to develop or alter its internal competencies. In contrast to the RBV that views the organization's competences as residing in its static assets, the Dynamic Capability View sees the organization's dynamic capabilities as residing in processes (the organization's routines, managerial cognitions, and institutional learning mechanisms). The dynamic nature of the organization's competencies is especially important for an organization to consider when managing IT resources, given the short life cycle of many technologies, rapid evolution in required skills, and an organization's ability to adapt to, and incorporate new technologies into its existing infrastructure will ultimately determine the practical benefit the organization derives from its investment in technology.

The combination of Resource-Based View (RBV) and Dynamic Capability (DC) is an effective theoretical basis to understand the connection between the way firms manage their resources and the performance they achieve operationally. The workforce's knowledge, skill, and relational capacities constitute the most strategically important type of resource in knowledge-intensive economic contexts (Leavy, 2021). The financial allocation of firm capital determines the breadth and depth of investments in technologies, training and development programs for employees, and the extent to which the firm expands its operations in new markets. Technology assets, managed using a well-defined and structured framework to govern the technology portfolio, provide the base upon which the digital foundation of all the firm's operational processes and customer value propositions are built. Information and data assets are now viewed by many as strategic resources and serve as the bases for evidence-based decision-making.

Table 3: Resource Management Dimensions and Their Organizational Impact

Resource Type	Management Approach	Key Tools/Methods	Business Impact
Human Capital	Strategic workforce planning, talent development	Competency mapping, succession planning	Productivity, retention, innovation
Financial Capital	Zero-based budgeting, activity-based costing	ERP systems, financial dashboards	Cost efficiency, ROI maximization
Technological Assets	IT portfolio management, lifecycle planning	Asset management software, cloud platforms	Scalability, reduced technical debt
Information/Data	Data governance, master data management	BI platforms, data catalogs	Decision quality, competitive intelligence
Organizational Capital	Culture management, knowledge systems	KM platforms, organizational learning	Adaptability, institutional memory

5.2 Human Capital Management in the Digital Economy

Human capital management in today's Digital Economy needs to strategically integrate Talent Acquisition, Competency Development, Performance Alignment, and Knowledge Retention Practices. According to the World Economic Forum's (2023) Future of Jobs report, 44% of the current Workforce Core Competencies are expected to be impacted by Automation and Artificial Intelligence over the next five years, requiring an unparalleled level of flexibility in the design of Workforce Development Strategies for organizations. In addition, organizations that have invested in proactive Reskilling/Up-Skilling Programs, creating a culture of Continuous Learning rather than a Periodic HR Intervention, demonstrate significantly greater levels of Operational Resilience during a period of Technological Transition.

The convergence of the two - Human Capital Strategy and Information Technology (IT) Strategy - is where the most significant impact will occur in terms of leveraging business value. There can be no expectation of realizing optimal ROI for the use of Advanced Analytics or Artificial Intelligence Platforms if the organization's workforce has not been educated to understand what is being presented as results generated by AI. Sull et al. (2017), studied 200 Manufacturing Companies over several years and documented the "Technology-Talent Gap" noting that companies with High IT Investment and Low Talent Development saw only 41% of expected productivity gains from their investments in Technology; conversely, companies that invested equally in both Technology and Talent Development were able to achieve an average of 89% of their expected gains, highlighting how Technology and Talent are complementary resources.

Modern knowledge management (KM) systems enable organizations to preserve and utilize their intellectual capital as an integral part of organizational strategy. By building upon the theory of how knowledge is created developed by Nonaka and Takeuchi (1995), the SECI model of knowledge creation, the newer forms of KM systems provide a way to socialize, externalize, combine, and internalize all types of knowledge, including both tacit and explicit knowledge. The use of AI in KM systems, such as smart search capabilities, automated capture of knowledge, and learning recommendations based on user preferences, is driving the growth of knowledge management in highly advanced organizations (Stair & Reynolds, 2023). These advancements have allowed organizations to convert their knowledge base from being a static repository to a dynamic driver of business performance.

5.3 Financial and Technological Resource Optimization

The optimal allocation of a company's financial and technical resources is dependent on effective governance models. These models need to be able to support both short-term efficiencies as well as long-term investment strategies. Both Activity-Based Costing (ABC) and Zero-Based Budgeting (ZBB) allow companies to make informed decisions by providing detailed information about how their resources are being utilized, and therefore making decisions based on fact rather than estimates. In addition, Enterprise Resource Planning Systems (ERP) have become the backbone of many large to medium-sized companies' ability to manage their resources. This is due to the fact that ERP systems can combine all three of these different types of data together (financial,

operations, and HR), and present it to management in one format, allowing them to better govern their resources (Stair & Reynolds, 2023).

The IT portfolio management (ITPM) approach is a tool for creating an overall strategic governance system for determining how IT resources will be invested in order to meet business objectives. The ITPM approach uses financial portfolio theory as its basis to classify IT investments along a risk/reward continuum, which allows senior executives to make trade-off decisions between maintaining their IT infrastructure investments and making new discretionary IT investments. McFarlan (1984) developed the IT Portfolio Matrix, which has been updated for today's digital environment by Luftman et al. (2017). The matrix categorizes IT investments into four categories (strategic, key operational, high potential, and support) and can serve as a decision model for allocating IT resources based on a company's competitive strategy. Companies that have established ITPM processes also tend to experience lower IT-related costs, as well as greater business satisfaction with technology delivery.

The shift in how resources are managed technologically is the most important development brought about by cloud computing; it allows for a utilization-based model for resource provisioning, which is contrary to traditional capital-intensive and inflexible capacity infrastructure. Gartner (2023) estimated that the worldwide expenditures for cloud services will be \$591 billion in 2023; this illustrates why so many companies recognize the cloud as an effective way to optimize their organizational resources. In addition to allowing organizations the ability to capitalize on the flexibility in costs associated with the cloud, these platforms allow organizations to have access to advanced capabilities such as AI/ML services, global content delivery, and enterprise-level security, without having to invest large amounts of capital in order to acquire them. This means that the challenge of cloud resource management, avoiding excessive expenditure of resources, managing the risks of vendor lock-in when utilizing multiple cloud providers, and ensuring regulatory compliance across multiple cloud providers, has become a critical skill set for IT resource managers.

6. GLOBAL BUSINESS PERFORMANCE: CONTEXTS AND CHALLENGES

6.1 The Global Operating Environment

Organizations operate globally in an environment where their organizational strategies and operational capabilities are shaped by layers of interdependent performance-influencing environments that are largely beyond the control of the organization itself. These include geopolitical risks, macroeconomic instability, regulatory fragmentation, gaps in digital infrastructure, and socio-cultural differences and diversity. All of these combined form the outer environment or "ecosystem" in which organizational strategies are developed and executed. Therefore, it is necessary to understand how these different contextual influences are interconnected and how the development of adaptive organizational capabilities will allow organizations to convert external risks and threats into competitive opportunities. For senior managers who manage organizations operating internationally, this understanding is essential (Leavy, 2021). Figure 3 illustrates the structure of the key global performance influencing factors.



Figure 3: Global Business Performance Influencing Factors

The COVID-19 pandemic provided an unintended natural test of organizational resiliency. The pandemic was illustrative of the vast differences in performance among organizations that existed during the time of the extreme disruption caused by the pandemic. Organizations that had superior digital capabilities, the ability to allow employees to work remotely, flexibility/resilience in their supply chain, and established and robust IT governance models were significantly more resilient than other organizations - they returned to business much faster, and for some, emerged from the pandemic in a better competitive position (Hossain et al., 2022). Therefore, the findings of Hossain et al. support the idea that operational excellence can be thought of as a form of insurance for organizations operating in turbulent environments where there are solid plans in place regarding an organization's IT strategy and sufficient resource allocation.

The differences in technological capabilities between established and emerging market economies can further complicate global operations for companies. Companies entering new emerging markets face challenges, including varying levels of digital infrastructure, cybersecurity regulation, workforce digital literacy, and technology use rates (Laudon & Laudon, 2022) that require different strategies for IT deployments. Technology solutions must be adapted to fit the specific local digital infrastructure; however, they must also meet the global standards of security and governance. Large multinational corporations that effectively mitigate this global-local technology gap will have a higher level of success in terms of market penetration and achieving consistent operational results in a variety of geographically distinct environments.

6.2 Information Systems as Global Performance Enablers

Information Systems are considered the Digital Nervous System for organizations with Global Reach; they enable organizations to make decisions and create value through real-time coordination of their global operations. Bourgeois et al. (2019) define an Information System (IS) as a Sociotechnical System that is made up of Technology, Data, Processes, and People, which have been organized to collect, Process, Store, and Communicate Information to achieve the Objectives of an Organization. The requirements of information systems within a Global Business Context are unique due to the need to meet multiple competing requirements: i.e., allowing local operational autonomy while at the same time achieving global strategic cohesiveness, meeting jurisdiction specific regulatory compliance for the use of data while allowing for the flow of data across borders, and providing for the accommodation of the varying cultural needs of users when interacting with an IS while at the same time requiring that the organization maintains standardization on its platforms.

Enterprise-wide systems, such as ERP, CRM, and SCM, provide an integrated information architecture through which companies can gain a global view of operations. The strategic value of these enterprise-wide systems is based upon both their function and the ability of the organization to utilize them as a means to create the necessary intelligence for an organization to dynamically allocate resources, coordinate across units, and make changes in direction (Stair & Reynolds, 2023). Companies utilizing ERP to analyze data to better manage customer demand forecasts and to improve inventory levels and supply chain performance consistently have higher operational efficiencies than companies without the benefit of a single, integrated information infrastructure.

Business Intelligence (BI) and advanced analytics have become key areas of competition for firms functioning in the global economy, where data and information are critical to their success. Along with providing organizations with the ability to make more rapid, more precise, and more confident strategic decisions, BI allows organizations to utilize vast amounts of different types of data (including customer behavior, competitive intelligence, operational performance, etc.) to provide meaningful and actionable insights into how they should compete and perform within their respective environments. Laudon and Laudon (2022) state that companies use predictive analytics, real-time operational dashboards, and decision-support systems utilizing AI as the top three BI capabilities for global performance management. Organizations that systematically implement these BI capabilities develop an organization-wide dynamic capability that will enable them to detect changes in their environment and strategically respond to those changes -- an ability that is difficult for competitors to replicate.

6.3 Cross-Cultural Leadership and Global Team Effectiveness

The management of organizational effectiveness across different cultural environments requires an integrated approach that balances global strategic alignment with local cultural awareness. Hofstede's cultural dimension model (Power Distance, Individualist/Collectivist, Uncertainty Avoidance, Long-Term Orientation, Indulgence) provides one of the most frequently used frameworks for analyzing the ways in which national cultural values influence the behavior of employees, their decision-making styles, their expectations from leaders, and their adoption rates of new technologies in organizations. Therefore, global leaders who have a high degree of cultural intelligence (the ability to operate successfully in culturally disparate environments) will be able to develop successful international teams, create effective cross-culturally based partnerships, and create organizationally inclusive processes (Leavy, 2021).

The use of remote and hybrid work models has created both new opportunities and challenges for organizations in regards to global governance. Organizations now have access to the best employees in the world, allowing them to form globally distributed teams and utilize the greatest talents in their industry. In addition, organizations can utilize digital collaboration platforms to enable communication and coordination among team members, regardless of where they reside or what time zone they live in. However, numerous studies have found that virtual work is negatively associated with social interactions. These studies have found that social trust decreases, informal knowledge sharing is less likely, and miscommunications increase when working virtually across cultures (Sull et al., 2017). Therefore, organizational leaders need to create relational infrastructures for their virtual teams by implementing formalized communication protocols, providing cross-cultural awareness training, and creating inclusive digital collaboration environments in order to realize the full performance capability of their geographically dispersed human resource base.

Increasingly, internationally active companies face an organizational and operational challenge to achieve supply chain resilience due to the current disruptions caused by the pandemic and ongoing political and trade conflicts between countries that affect both supply chains and relationships with suppliers. Companies that have globally diverse and technologically advanced supply chain networks - integrating real-time monitoring of supplier performance, predicting customer demand, and enabling dynamic sourcing - can maintain much greater operational continuity than those without these advantages when external events disrupt them (Hossain et al., 2022). In order to ensure that supply chain decision-making is conducted with a full understanding of its impact on the organization's overall strategic and financial success, global supply chain IT systems need to be strategically aligned with other areas of the company's operations.

7. THE OPERATIONAL EXCELLENCE INTEGRATION MODEL (OEIM): AN ORIGINAL CONTRIBUTION

The Operational Excellence Integration Model (OEIM) is the main theoretical contribution made by this study. The OEIM is based upon the four themes that are discussed in sections 3-6 of this report and also draws upon the Resource-Based View, Strategic Alignment Model, and Dynamic Capabilities Theory to provide a structural explanation of how the synergistic impacts of Leadership, IT Strategy, Resource Management, and Global

Context will ultimately produce long-term organizational performance. The OEIM builds upon the previously developed frameworks as it incorporates global contextual moderators into its structural framework and identifies Information Security Governance as a cross-cutting facilitator of all four themes.

Transformational and ambidextrous leaders are at the core of the OEIM's leadership excellence, and it is this leadership excellence that acts as the main precursor for the other three dimensions in creating the organization's culture and establishing the organization's strategic vision that defines the focus of IT investments, the philosophy of resource allocation, and the posture in the global marketplace. The strategic vision also influences whether or not the institutional environment is conducive to adopting technology, to the sharing of knowledge, to continuous improvements, and to cross-cultural collaboration. Therefore, the quality of leadership is a direct performance driver, and an indirect one as well, influenced by the quality of IT strategies, the effectiveness of resource management, and the organization's ability to be adaptable.

IT Strategy Alignment serves to be the chief means whereby an organization's executive vision is translated into operational capability. COBIT 2019, ITIL v4, and Agile are effective IT Governance Frameworks that provide both structure and process in order to ensure the consistently high quality of IT Service Delivery and Value Generation. Whitman & Mattord (2018) contend that information security governance is not a subsidiary of IT Strategy; it is a co-equal strategic mandate whose success will ultimately determine the integrity and resiliency of the entire IT-enabled value chain. The efficiency with which resources are managed acts as a mediator of the relationship between IT Strategy and Performance by affecting the quality and sufficiency of the financial, human, technological, and informational resources available to execute the organization's IT strategy. Global Business Environment will moderate the overall performance relationship, enhancing or diminishing the performance gains of Leadership, IT Strategy, and Resource Management based upon the organization's environmental fit and adaptability. The practical value of the OEIM resides in its ability to serve as a diagnostic tool, allowing executives to utilize the model as a structured method to identify which component(s) represent the greatest constraint to performance enhancement and adjust their investments accordingly.

8. LIMITATIONS OF THIS STUDY

A number of methodological and conceptual limitations exist with this study, and these need to be identified in order to gain an accurate understanding of the findings from this study and the contribution that this study makes. First, the use of an integrative literature review methodology allows for a comprehensive synthesis of research across different disciplines, but is also subject to the same publication bias as all other research methods. As a result, academic literature is likely to report only the positive and statistically significant results; therefore, the findings of this study may overestimate the size and scope of the relationships that have been reported in the literature. Future studies that utilize primary data collection (i.e., cross-sectional surveys, longitudinal field studies, and/or mixed-methods case analyses) will allow for a more thorough empirical testing of the propositions contained in the OEIM.

Secondly, the study's broad conceptual context, although ambitious, has had to abstract from many of the sector-specific and size-specific factors that have an important impact on the interplay among the four pillars. It is likely that the effects on performance of aligning IT strategy will be different for a large multinational bank than they would be for a medium-sized technology company; likewise, the constraints on resources within government organizations are subject to institutional logic that differs substantially from that found in the private sector. The OEIM was purposefully built as a general-purpose framework; therefore, it will require careful adaptation and contextual calibration when applied to specific types of organizational settings.

Third, the geographic spread of the literature examined in this review is largely biased toward North America, Europe, and Asia because it reflects the larger distribution of English-language peer-reviewed publications. A further focus is on the applicability of the framework to organizational systems that are predominantly based in South Asia, Africa, and/or Latin America, all areas with significant variations in their digital infrastructure, levels of government maturity, and cultural values. Thus, additional empirical study to establish the relevance of the framework to these geographically and culturally disparate organizational environments will be critical to develop a truly global theoretical model of operational excellence.

9. CONCLUSION

This research has shown that the achievement of operational excellence in current organizations is a multidimensional one, as it requires an integrated and coherent approach based on transformational leadership, strategically oriented IT governance, efficient use of resources, and responsive adaptation to global business changes. This Operational Excellence Integration Model (OEIM) offers a theoretically valid and practically

useful model for identifying performance limitations within organizations and for developing targeted interventions for improving them. The OEIM's major contribution was the identification of the causal relationships, mediation, and moderation among context factors that explain the performance returns generated by investment in the four pillars of operational excellence.

The majority of the research indicates that an organization's leadership quality will have the most influence on the other elements within an organization's operational excellence systems. In the role of transformational and ambidextrous leaders, they create the organizational and strategic cultures that allow organizations to achieve their complete potential in terms of global adaptability, resource management, and IT strategy. Furthermore, institutionalized structures that enable the achievement of strategic alignment and maintenance of that alignment include IT governance frameworks such as COBIT 2019, ITIL v4, and Agile Methodologies, and information security governance, which, according to Whitman & Mattord (2018), requires it to be viewed as a Co-Strategic Imperative (versus simply as an afterthought for compliance). An organization's sustainability of competitive advantage is dependent upon the effectiveness of its resource management through two complementary views – the resource-based view and dynamic capabilities theory; the quality of human, financial, technological, and informational inputs to the execution of its strategic plans.

The OEIM has practical implications for practitioners at multiple levels of analysis as well. The OEIM could act as a strategic alignment tool for executive-level practitioners to identify gaps or opportunities to improve their organization's overall strategy by examining alignment with leadership, technology, and resources. Additionally, the OEIM identifies and provides access to specific operational-level governance tools (such as IT Portfolio Management, Cyber Security frameworks, Talent Development programs, and knowledge management systems) in which operational excellence may be built in and sustained over time. Future research should seek to validate the OEIM through longitudinal field studies in a variety of organizational settings and examine the conditions in which the OEIM would be most likely to add value (e.g., industry level of digitalization, national regulatory environment, etc.).

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