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## DELIVERING VALUE FROM IT DEPARTMENTS IN ORGANIZATIONS: A STATE-OF-THE-ART APPROACH

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**Abstract:** Based on the existence of different studies related to the delivery of value through the adoption of frameworks and best practices for Information Technology (IT) governance, this article aims to present the state of the art, highlighting the main characteristics and limitations in relation to their adoption. It highlights relevant aspects from different perspectives on how business areas and IT organizations perceive value delivery. To this end, several frameworks commonly applied in the market for IT governance have been analyzed, recognizing that each offers different approaches, while maintaining a common point, which is the strategic alignment between IT and business objectives.

Keywords: Strategic alignment, frameworks for IT governance, value delivery, service, enterprise architecture.

## INTRODUCTION AND OBJECTIVES

The use of technology in corporations as a fundamental element in supporting processes to increase their efficiency and reliability, among other factors, has led to the adoption of frameworks and best practices for the management and governance of information technology (IT). While adopting these initiatives requires effort, the end result seeks to generate tangible results that demonstrate strategic alignment between the objectives defined by the business and IT.

Various sources of information have been explored on the strategic alignment between IT and the business, value creation, and key points, identifying variables that determine the delivery of IT value to organizations. Nicolian et al. (2015) describe this challenge as a situation in which IT value reflects net benefits, showing its impact on customers, suppliers, employees, organizations, and society in general. Pollard and Carter-Steel (2009) point out that the purpose of IT is to provide

real benefits, allowing the business to be more flexible, adaptable, cost-efficient, and service-oriented, responding to business needs according to corporate strategy. This article explores the main frameworks and best practices most used in the industry, their value, and the processes implemented, considering the metrics that evaluate value generation within organizations.

Research associated with strategic alignment models such as the Strategic Alignment Model (SAM) and the Strategic Alignment Maturity Model (SAMM) has been used, where alignment between IT and business areas is considered fundamental, being one of the pillars of corporate strategy. Additionally, some frameworks and best practices were reviewed, such as COBIT®, ITIL®, ISO/IEC 20000, VAL IT®, TOGAF®, and ISO/IEC 38500, as well as other models derived from or leveraged by the aforementioned, based on delivering value to organizations to achieve corporate objectives.

## METHODOLOGY

The development of the state of the art has been based on a qualitative analysis of at least 50 academic articles related to the adoption of various frameworks and best practices for IT governance. Priority has been given to those frameworks that are most widely used in the industry, such as ITIL®, COBIT®, ISO/IEC 38500, ISO/IEC 20000, and TOGAF. The review has focused on identifying the distinctive characteristics of each approach, its results as applied in the industry, and the aspects of value generation and strategic alignment that can be derived from its implementation.

The studies reviewed covered different regions of the world, including North America, South America, Europe, and Asia, as well as the results of their application in different types of medium and large industries in sectors such as pharmaceuticals, finance, edu-

cation, and logistics, among others, considering the perspective of independent academic groups and groups developing this type of work framework.

## **RESULTS**

### **DELIVERING VALUE FROM IT MANAGEMENT**

IT management areas are business units within corporations, and expectations are generated regarding the value they are expected to generate. Das and Bharadwaj (2017) suggest some value variables that are commonly required, including capacity, flexibility, competence, quality, strategic relationship, and transparency, among others.

The high dynamism, customization, and intense competition of organizations promote developments based on knowledge, technology, and innovation (Atkinson, 2005), for which the role of IT governance must be of great contribution.

Below are some relevant aspects of the value delivery process.

### **CONTRIBUTION TO COMPETITIVE ADVANTAGE**

Information technology (IT) has established itself as an essential strategic resource for contemporary organizations, facilitating continuous process improvement, increasing operational efficiency, promoting innovation, and strengthening internal control mechanisms. However, for these benefits to translate into a sustainable competitive advantage, IT investments must be managed according to principles of economic rationality, maximizing return on investment (ROI), reducing operating costs, and optimizing the use of technical and human resources.

In this context, IT governance frameworks play a fundamental role in aligning technological capabilities with strategic business objec-

tives. Gellweiler (2017) proposes the concept of IT Value Planning, which articulates value planning by structuring portfolios of technology projects consistent with the organization's competitive positioning. This planning requires a high degree of cohesion between ITs and business areas, which ensures the effective delivery of value and the success of the expected results.

Innovation, understood as the process of transforming ideas into operational solutions or profitable products, has established itself as a key driver of competitive advantage in highly dynamic market environments (Dong et al., 2017). According to Dong and Yang (2015), the strategic use of IT enhances the capacity for recombining organizational knowledge, which translates into more robust innovation results, measured in both quantity and quality. This recombination manifests itself in two dimensions: intensity (amount of reused knowledge) and diversity (breadth of combined domains), both of which are critical mediators between IT use and innovation outcomes.

Furthermore, innovation is fueled not only by internal knowledge, but also by external knowledge acquired through collaborative networks and strategic alliances. This capacity to absorb external knowledge, facilitated by IT, allows organizations to adapt quickly, propose significant improvements, and generate value in their processes.

Recent literature confirms that innovation strategies have a positive and significant impact on business competitiveness, especially when integrated with dynamic capabilities such as technology adoption and market orientation (Dong et al., 2017). In this sense, IT governance frameworks not only ensure operational efficiency but also enable strategic innovation, becoming catalysts for sustainable competitive advantages.

### **Compliance and risk management.**

Among the main motivations for implementing information technology (IT) governance models are risk management, security, regulatory compliance, and control of changes in the technological infrastructure. These elements are fundamental to ensuring organizational transparency, enabling informed decision-making that is aligned with strategic objectives (De Haes & Van Grembergen, 2015).

Regulatory compliance requires organizations to perform constant checks through internal and external audits, which not only ensure compliance with current regulations but also promote continuous process improvement (Zoldan, Gregianin, & Mezzomo, 2012). In this regard, IT governance frameworks such as COBIT, ISO/IEC 27001, and NIST RMF provide structured guidelines for implementing controls, assessing risks, and ensuring compliance with international standards.

Likewise, the availability of technology services is a critical aspect that must be properly managed. Bauset and Rodenes (2013) emphasize that these services, being supported by multiple internal processes, must be aligned with organizational policies, contractual agreements, industry standards, and recognized best practices. This alignment is key to ensuring operational continuity and resilience in the face of technological incidents.

In the business environment, in both the public and private sectors, compliance and control requirements vary according to the applicable regulatory framework. Confente, Gaudenzi, and Siciliano (2019) analyze how, in a global context, cyber threats must be identified and managed through governance models that integrate prevention, mitigation, and compliance efforts. These models seek not only to reduce risk exposure, but also to generate value by protecting digital assets and strengthening organizational trust.

In conclusion, IT governance frameworks not only contribute to operational efficiency, but also play a strategic role in risk management and regulatory compliance. Their effective implementation allows organizations to operate securely, transparently, and in compliance with regulatory requirements, thus strengthening their adaptability and sustainability in complex digital environments.

### **DELIVERING VALUE FROM DIFFERENT GOVERNANCE FRAMEWORKS AND BEST PRACTICES FOR IT SERVICE MANAGEMENT**

Several frameworks and best practices can be identified for managing IT governance. Some of them will be reviewed to identify their main characteristics aimed at delivering value after their adoption. As an example, Adhisyanda et al. (2019) indicate that the IT Infrastructure Library (ITIL®), Control Objectives for Information and Related Technology (COBIT®), and ISO/IEC 27001 are valuable options for managing aspects such as information security. These standards ensure that the purpose of implementing IT governance in an organization is achieved under the expected objectives and mitigates any risks that may exist (Nugraha and Syaidah, 2022).

It has been found that organizations that adopt IT governance achieve profit levels that can be up to 20% higher than organizations that do not employ such practices (Najjar, Alharbi et al., 2020). Most organizations are currently working toward implementing IT governance strategies and standards to increase performance levels (Nicho and Muamaar, 2016).

Khaiata and Zualkernan (2009), based on studies conducted in different organizations, cite the complexity within companies in measuring the strategic alignment between business and IT. This scenario provides an

opportunity for the application of the SAMM model. An important challenge is to understand how aligned the business areas are with IT in order to leverage their enablers and minimize barriers (Luftman, 2000).

Effectively combining the governance, strategy, and tactical layers of organizations reflects the joint work between the business and IT to develop strategic initiatives that generate understanding between the parties, identifying the impact that these initiatives have on the success of the business, and promoting greater understanding and commitment on the part of senior executives (Luftman et al., 2008).

### CASE STUDIES

The implementation of technology governance frameworks such as COBIT and ITIL has proven to be an effective strategy for improving organizational performance, optimizing IT service management, and strengthening the alignment between technology and business. These frameworks not only provide methodological structures for IT governance and operation, but also enable the delivery of value through practices focused on efficiency, service quality, and risk mitigation.

Below are two case studies that reflect the benefits for organizations that have adopted these frameworks, demonstrating concrete improvements in technology management processes.

Case 1: Analysis of investment IT planning on a logistics company using COBIT 5			
Authors: Syafrial Fachri Pane et al 2018			
Challenge: IT investment planning			
Industry type: Logistics and healthcare			
Governance frameworks used: COBIT 5 and Val IT			
Results:			
Definition of RACI matrices (responsible for execution, accountable, consulted, and informed)			
Prioritization of processes according to capabilities and gaps			
Cobit 5 process	Existing Capability	Target Capacity	Gap
EDM01 Ensure the Establishment and Maintenance of the Governance Framework	4	4	0
EDM02 Ensure the Benefit of Deployments	4	4	0
APO01 Manage the governance framework	3	4	1
APO02 Manage the strategy	3	4	1
APO05 Manage the portfolio	3	4	1
APO06 Manage budget and cost	3	4	1
APO07 Manage human resources	3	4	1
BAI01 Manage programs and projects	3	4	1
MEA01 Monitor, evaluate, and assess performance and compliance	3	4	1
Table 1. Assessment of capabilities and gaps using COBIT5 and Val IT			



Case 2: Implementation of Service Desk Solutions on the Example of a Company for the Production and Distribution of Electricity Energy Using the Principles of the ITIL Framework			
<b>Authors:</b> Anel Tanović, Ajla Čerimagić Hasibović – Bosnia and Herzegovina 2024			
<b>Industry type:</b> Electricity Production and Distribution			
<b>Challenge:</b> Assessment of improvement after adoption			
<b>Frameworks used:</b> ITIL V4			
	<b>ITIL Practice</b>	<b>Result before ITIL</b>	<b>Result after ITIL</b>
	Incident management	71.40	82.80%
	Change management	72.20	82.40
	Service desk	48	75.20
	Problem management	69.60	85.20

DISCUSSION AND CONCLUSIONS

Based on the results of this documentary research, it can be concluded that the implementation of frameworks and best practices for technology governance brings significant value to organizations in terms of efficiency, risk management, and competitiveness, among other factors.

The growing participation and dependence on technology in industry, regardless of sector, makes it necessary to adopt some model of IT governance in order to ensure business continuity and resource efficiency. These frameworks and best practices are recognized in the industry and enable the creation of models that support the alignment of strategic business objectives, risk reduction, and compliance with regulatory . Their applicability in different industry sectors such as healthcare, education, and banking, among others, demonstrates their versatility and relevance.

IT governance frameworks suggest defined processes and metrics aimed at efficiency and continuous improvement, emphasizing various areas of work such as quality, IT project development, service delivery, and other processes related to IT management. They highlight their interest in generating value within organizations and their alignment with the

business, while also agreeing on the need to establish metrics that reflect the results of the operation and levels of maturity.

The results allow us to appreciate the level of adoption and maturity of some frameworks for IT governance in organizations, highlighting the contribution that different models generate. In general, the cases reviewed do not specify the effort required for implementation. However, in some situations, they describe it as an obstacle to adoption. This opens up the possibility of conducting research to assess the effort required to successfully implement these models in organizations.

It is necessary to establish valid criteria to guide IT investments according to the needs of organizations. The frameworks reviewed are widely accepted due to their maturity and proven benefits, becoming industry standards. The success of an IT governance model depends on the strategic alignment between IT and business areas, as well as the support and effort necessary to achieve tangible results. Organizations that have adopted these models show operational improvements and value creation. However, it is important to assess whether the benefits obtained justify the effort made.

Another line of expansion of this study is to detail the management of some variables that are considered to be of greater relevance to businesses, as identified in this article. Examples of these variables include return on investment, competitive advantage, cost reduction, risk management, and operatio-

nal efficiency, among others. In addition, this study could be extended to one or more specific sectors to analyze the levels of adoption of these frameworks and best practices and to identify specific opportunities for improvement, with the aim of optimizing value delivery after implementation.

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