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Implementing a Strategic Information Systems Planning (SISP) Framework at Veolia:

A Roadmap for Digital Transformation and Competitive Advantage

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ABSTRACT

Businesses today are increasingly investing in IT to enhance productivity, but IT investment alone does not guarantee improved performance or a competitive advantage. Effective deployment of information systems (IS) requires strategic alignment between IT and business objectives. This study examined Veolia, assessing how its IT alignment contributes to business performance within the framework of IT maturity and strategic value creation. The study employed secondary data collection, using content analysis and a case study approach to analyse Veolia's IT-business integration. Findings suggested that Veolia's focus on resource efficiency, its core knowledge base, and IT assets have strengthened collaboration, innovation, and operational effectiveness across its global units. The study highlighted the importance of aligning IT strategy with business goals to maximize both financial and non-financial performance.

KEYWORDS

Information System, Business Strategy, Resource Efficiency, Information Technology

INTRODUCTION

Businesses today benefit from information technology (IT) investments, improving productivity regardless of their IT management skills (Rodrik & Sandhu, 2025). IT investment by itself, however, cannot ensure enhanced performance and a competitive edge; rather, successful information systems (IS) implementation depends on alignment between IT and business strategy. According to Froehlich et al. (2025), this alignment can only be successful if business executives and IT workers share expertise. Businesses must give particular attention to knowledge management since the external environment in which they operate is highly competitive and unstable. As a result, IS has a significant impact on an organization's financial and nonfinancial performance. By supplying pertinent data and important business insights, IS facilitates decision-making, enabling businesses to innovate or develop cost-effective products for competitive advantage. Strategic IS aids in gaining a competitive edge, regardless of the approach taken (Tsiu et al., 2025). While attaining a strategic alignment between IT

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and business is one factor, an organization's IS maturity also plays a significant role in the success of the selected strategic information systems planning (SISP) method.

In today's rapidly evolving business landscape, firms must assess technology strategically to sustain competitive advantage. SISP is a main procedure that assesses IS with the objectives of the business, making sure digital transformation increases market positioning and operational efficiency. As the process of digitalization redevelops industries, firms that appropriately plan and apply IS attain a competitive edge by assessing data-driven decision-making, emerging technologies, and automation (Schrewelius & Lindqvist 2025). The requirement for an organized SISP model arises because of hardships, like misalignment between business goals and IT, inefficient resource allocation, and technological obsolescence. Firms struggle with complex IT systems, leading to inefficiencies and reduced agility in responding to market dynamics. A well-developed SISP model offers a roadmap for digital transformation by assimilating technological capabilities, strategic foresight, and business needs (Baiyere et al., 2025). This framework makes sure that investments in IT add to long-term innovation, sustainability, and profitability. Digital transformation is regarded as a main element of the contemporary business strategy and includes implementing technologies, like cloud computing, blockchain, artificial intelligence (AI), and big data analytics. However, without a robust roadmap, firms might experience change resistance, financial constraints, and cyber-security risks. A robust SISP framework reduces these threats by assessing the structures of governance, examining technological readiness, and establishing performance metrics to evaluate the success of transformation. By embedding SISP into corporate strategy, organizations can optimize processes of business, improve experiences of customers, and drive innovation (Rahman et al., 2025). This study helped assess how a vigorous framework of SISP can work as a catalyst for digital transformation, ensuring firms maintain a competitive advantage in the digital economy. Assessing the challenges and the best practices in application of SISP will add to making a proper roadmap for firms trying to flourish in a digitalized world.

Veolia was selected for this study. With a combined turnover of 24.39 billion euros, Veolia offers environmental services, including waste, water, and energy management solutions, to a wide range of industries and residential facilities. Enhancing resource efficiency in environmental services is the company's primary emphasis and source of competitive advantage (Veolia, 2017). Additionally, Veolia employs 174,000 people and is present in more than 50 countries. However, it is a tedious process to manage IT strategically without employing the appropriate SISP methodology. Here is where Veolia Group's technical know-how benefits the business strategically. By emphasizing expertise and R&D capabilities as critical resources, Veolia has managed to carve out a distinct niche for itself in the utilities sector despite growing competition. Veolia Group's IT capabilities have aided the business in achieving resource efficiency and advancing cutting-edge technologies, including circular economy products. Veolia and International Business Machines (IBM) Corporation have partnered to improve water management and raise water quality. Big data and data analytics are used by IBM's Intelligent Water Software to enhance water management (IBM Corporation, 2014).

This study focused on the problems and the importance of the alignment of IT with business strategy at Veolia through SISP. It evaluated how Veolia's IT maturity and its alignment both affect business performance, giving significant attention to how SISP helps achieve organizational objectives and business growth by leveraging the competitive edge of IT resources in a digitalized world. Hence, the objective of this study was to analyze how the selected corporation, Veolia, fits into the evaluative IS and IT value relationship framework to assess strategically. Moreover, this study sought to analyze how the alignment of IT with business strategy at Veolia impacted organizational performance from the standpoint of the organization's business maturity and alignment, as well as IT maturity. Moreover, since there is not enough literature on the ideal SISP, it was important to stress the focal point of this investigation was to defend Veolia's strategic goals with IS by emphasizing the importance of SISP by claiming that success with SISP toward the defined goals can be achieved.

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