

From Theory to Practice: Exploring Strategic IS Alignment in the Textile Sector of Meknes, Morocco

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Abstract. This study aims to realize the importance of strategic alignment between IS and organizational strategy on enabling business performance. The positive association of IS alignment with enhanced efficiency, cost minimization, and competitive advantage has been corroborated by a systematic review of extant literature. Yet this is complex, yet strategic alignment guarantees that IS technology align with organizational objectives to allow the businesses to maneuver the competitive and dynamic markets. The empirical case study was undertaken in SEFITA, a textile organization based in Meknes Morocco that adopts IS to enhance its operations, to complement the literature. We find that strategic IS alignment also increases the operational efficiency and competitive positioning of SEFITA, confirming the theoretical foundations presented in the literature. According to our research, in order to attain long-term performance improvements, organizations need to incorporate IS planning into their strategic frameworks and put in place ongoing alignment processes.

Keywords: Strategic Alignment, Information Systems, Organizational Performance, SAM Model

1. INTRODUCTION

Strategic alignment of information systems is a subject that has attracted the attention of researchers and practitioners alike, and has been the subject of numerous studies in recent decades. The literature review shows several authors who have described and defined the strategic alignment of information systems. Strategic alignment is still the management issue most preoccupied by the leaders of global organizations, yet despite frequent and in-depth surveys different perspectives suggest future research is different, and there are still areas that remain unresolved.

In a global economy based on information and knowledge, companies need to be able to choose the type of business strategy and assimilate business strategy and assimilate information technologies so as to be able to respond rapidly to environmental changes, face up to competition and obtain added value in terms of both operational and business performance. Most company directors and functional managers therefore need to understand how investment in information technology can enhance organizational performance.

The impact is therefore enormous for the company, particularly in the area of disseminating and manipulating information in line with internal and external objectives. Information systems therefore become necessary to ensure sustainable development and competitiveness.

In addition, the fact that IT systems have a significant presence in the production process means that production can be increased, they become a source of greater organizational flexibility by transforming the time and space of individual work, and a new approach to the way in which the organization is organized, both internally and externally.

Through this study, we seek to answer the following question:

To what extent does the strategic alignment of information systems contribute to the performance of organizations?

To answer this question, our work is structured around two axes:

A systematic literature review to explore the concepts of strategic alignment, organizational performance and their interrelationships.

An empirical study carried out at a textile organisation based in morocco, to illustrate in concrete terms the impact of strategic IS alignment on operational and strategic performance.

The results of this study will provide concrete recommendations to organizations wishing to optimize their information systems to improve their competitiveness and ensure their sustainable development.

2. LITERATURE REVIEW

1. Definition and key concepts

Strategic alignment of information systems is increasingly imperative for organizations faced with rapidly changing technology and market dynamics. As digital transformation becomes a trend, IS alignment with strategic objectives and goals is seen as a key tip for competitive existence and organizational effectiveness. This literature review outlines notions, implications, variables and constraints relating to this field, drawing on both theory and empirical evidence , several authors have defined and explored this concept through different approaches:

Henderson and Venkatraman (1993) ¹developed the Strategic Alignment Model (S.A.M), considered to be a basic reflection of alignment assessment. This model enables the notion of alignment to be understood as a set of interactions between information systems and the company's overall strategy. This model takes into account two dimensions of coherence: strategic coherence (which implies alignment between the strategic and organizational dimensions of strategy implementation) and functional coherence (which emphasizes the

¹ Henderson J., Venkatraman N. (1989), Strategic Alignment: A Framework for Strategic Information Technology Management, 3039-3089

importance of coherence between business and IS domains). Furthermore, the authors mention two fundamental principles supporting the strategic alignment hypothesis: on the one hand, the resulting economic performance, and on the other, management's ability to create a strategic alignment (“fit”) between a company's competitive position in a market and the configuration of an appropriate structure to support its implementation.

However, Venkatraman (1989) recognized the limitation of his research, stating that these different perspectives do not take into account the dynamic nature of alignment (Venkatraman, 1989, p.441).

According to Luftman et al (2004)², strategic IS alignment is the harmonization of technological and business activities to add value to the organization. This relies on managerial behaviours that promote coordination and integration between these two domains. Chan and Reich (2007)³ assert that variations in terms as well as conceptualization of the phenomenon are attributed to differences between academic disciplines, e.g. the term “fit” is used in the strategic management discipline, while the term “alignment” is used almost exclusively in the information systems literature.

Despite a wealth of research, Kappelman et al.⁴ show that IS strategic alignment remains a key concern for senior executives worldwide. Hirschheim and Sabherwal see alignment as a process of adaptation and continuous change, aimed at ensuring harmony between IS strategy and business strategy. Michael Porter, on the other hand, insists on the notion of strategic “fit”, essential to guaranteeing sustainable competitive advantage: “Alignment is the engine of competitive advantage and sustainability”. The organization, in all its dimensions, must be at the service of the strategy and put in place a structure consistent with its strategic objectives.

According to our research, in order to attain long-term performance improvements, organizations need to incorporate IS planning into their strategic frameworks and put in place ongoing alignment processes.

2. Strategic Alignment and Organizational Performance

² J. Luftman, D. Sledgianowski & R. Reilly. Identification of IT-business strategic alignment maturity factors: an exploratory study. In AMCIS 2004 Proceedings, Vol. 470, pp. 3717–3725, 2004

³ Y. E. Chan, & B. H. Reich, "IT alignment: what have we learned?" *Journal of Information technology*, 22(4), 297-315, 2007

⁴ L. Kappelman, V. Johnson, E. McLean & R. Torres, the 2015 SIM IT issues and trends study. *MIS Quarterly Executive*, 15(1), 55–83, 2016

The underlying question that is addressed in the literature is: How does strategic alignment of IS increase organizational performance? A lot of studies show strategic alignment is one of the top three components for improving both operational and strategic outcomes for businesses. This suggests that organizations which have their IS aligned with the organizational strategy would have a significantly positive effect on their performance of the organization (Bergeron et al., 1995) particularly productivity and cost efficiency.

While Mahmoud and Mann (1993)⁵ assert the existence of a general impact of IT on performance, others such as Strassmann (1997)⁶ dispute any demonstrable link between IT investment and financial results. Barua, Kriebel and Mukhopadhyay (1995)⁷ have proposed a two-stage model linking IT investment to performance through intermediate processes such as production or logistics. Thirdly, information systems have a direct impact on consumer surplus, mainly via price reduction mechanisms, generating tangible value for customers. Fourthly, IS contributes to the intangible capital development. Research into where companies in each of these camps build up intangible assets shows that there are two main paths: direct (building up specific assets, like internal databases) and indirect (the development of those assets unfolds as a result of daily processes). This phenomenon can be explained using the “information flow model”, according to which all corporate operations (from product design to distribution) are treated as data flows.⁸

Finally, with regard to the last aspect of project economic analysis, the value of information, decision-makers also recognize this dimension as a tool for mitigating the level of uncertainty. In this sense, it's worth noting that modern economic theories dating from the 1990s also use decision schemas. As such, they propose a way of representing the decision-making process, including forecasts, wait-and-see measures and subsequent revisions.⁹

3. Key factors

The lack of correspondence between concepts and their mathematical expressions weakens the link between theoretical construction and related tests (Blalock 1965), and is the

⁵ Mahmood M.A., Mann G.J. (1993), “Measuring the organizational impact of Information Technology Investment: An exploratory research”. *Journal of Management Information Systems*, 10(1), 1993; pp. 97-122

⁶ Strassmann P.A. (1997), “Will big spending on computers guarantee profitability?” *Datamation*. Vol.43, N° 2 (February): 75-82

⁷ Barua A., Kriebel H.C. and Mukhopadhyay T. (1995), « Information technologies and Business Value: An Analytic and Empirical Investigation”, *Information System Research*, Vol 6, n° 1, p3

⁸ S. Jorfi, K. M. Nor, and L. Najjar, "An empirical study of the role of IT flexibility and IT capability in IT-business strategic alignment," *Journal of Systems and Information Technology*, vol. 19, no. 1/2, pp. 2-21, 2017

⁹ N. Chtourou Ben Amar and R. Ben Romdhane, "Organizational culture and information systems strategic alignment: Exploring the influence through an empirical study from Tunisia," *Journal of Enterprise Information Management*, vol. 33, no. 1, pp. 95- 119, 2019.

main reason for the inconsistency of research results. Moreover, although this concept is useful, it remains difficult to define it precisely and determine its organizational existence.

To this end, he proposes six different perspectives on alignment:

Moderation, mediation, matching, covariation, profit deviation and gestalt.

Using the concept of alignment has confronted researchers with two major decisions: the first is to choose the degree of specificity of the theoretical relationship that declares the level of precision in the functional form of alignment.¹⁰ Indeed, in some cases, the relationship between the different variables can be specified, but in others, certain variables are said to be “co-aligned” without, however, providing a precise form of this alignment. The second aims to link certain alignment perspectives to a particular criterion (effectiveness, efficiency).¹¹

4. Theoretical Framework: SAM Model

Various models have been conceptualized to strengthen the strategic alignment of IS in organizations. Of these, Henderson and Venkatraman's (1993) is the most popular, and the most studied by researchers and practitioners, and the most widely applied, remaining a benchmark model.¹²

This model helps to provide factors that help to formalize and structure the notion of strategic alignment: Components to structure and formalize the dimensions to be aligned, and alignment sequences built from conceptual bricks (strategic fit and functional integration) of alignment, enabling us to detail the nature of the links between these domains.

The model emphasizes the coherence and integration of the four organizational domains identified, to make the information system a corporate asset, namely business strategy and IS strategy, the business process and the IT process also .¹³

¹⁰ M. A. Ghonim, N. M. Khashaba, H. M. Al-Najaar, and M. A. Khashan, "Strategic alignment and its impact on decision effectiveness: A comprehensive model," *International Journal of Emerging Markets*, vol. 17, no. 1, pp. 198-218, 2022.

¹¹ D. B. Audretsch and M. Belitski, "A strategic alignment framework for the entrepreneurial university," *Industry and Innovation*, vol. 29, no. 2, pp. 285-309, 2022.

¹² Henderson J., Venkatraman N. (1989), *Strategic Alignment: A Framework for Strategic Information Technology Management*,), 3039-3089

¹³ S. Sharma and R. Behl, "Strategic alignment of information technology in public and private organizations in india: A comparative study," *Global Business Review*, vol. 1, pp. 1-18, 2020

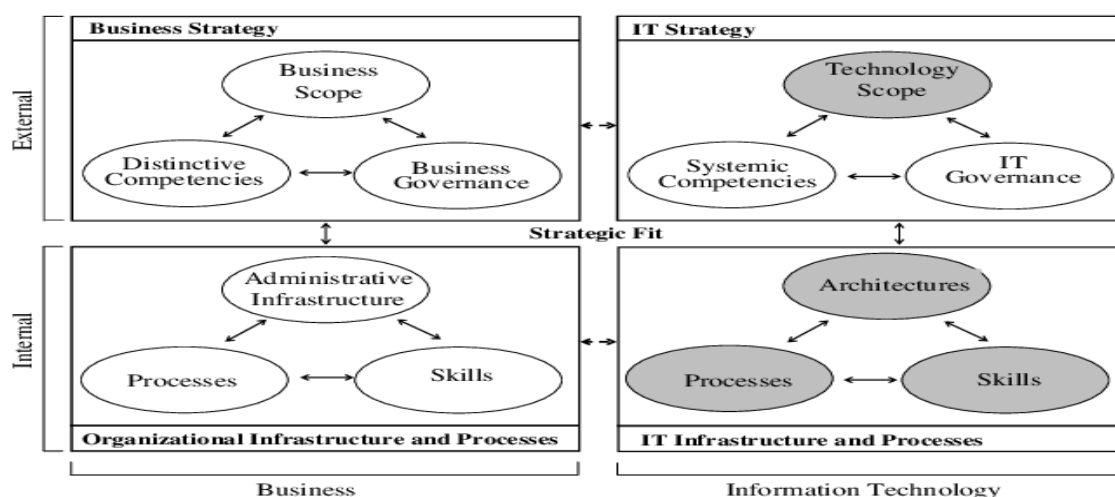


Figure 1 Strategic alignment model (from Venkatraman, 1991)

3. METHODS

In any scientific research, it is essential to establish a rigorous and appropriate methodology that aligns with the research objectives and the nature of the phenomenon being studied. For this systematic review, we have taken into account both theoretical frameworks and field-based insights to ensure a comprehensive analysis.

To bridge the gap between theory and practice, we employed a mixed-method approach that combined various tools, including internships, surveys, and interviews. Specifically, we conducted a two-month internship at SEFITA, a leading textile company based in Meknes Morocco specializing in weaving.

The primary objectives of this internship, supported by interviews conducted with key stakeholders, were twofold:

- **Identify the Enterprise Resource Planning (ERP) system** used by the company, along with its associated modules.
- **Analyze the role of this ERP system in facilitating the strategic alignment of the company's information systems (IS) with its business objectives.**

This methodological approach allowed us to gather practical insights into the operational context of IS alignment within a textile enterprise, complementing the findings from our systematic literature review.

4. RESULTS

Insights on Information System Implementation and Strategic Alignment at SEFITA through an interview with an IT Department Director the key dimensions were base applications, strategic applications, system efficiency, security measure and overall evaluation which were the main focus of the analysis.

SEFITA uses some basic computer applications like accounting, invoicing, delivery management, etc. which are required for the basic functioning of any about these base-level applications ensure operational reliability, irrespective of the company's specific strategic orientation.

Beyond base applications, SEFITA integrates specialized applications aligned with its strategic goals. These applications significantly enhance the company's flexibility and operational efficiency, directly contributing to competitive advantages such as reduced delivery times and adaptability to consumer preferences. The value-added benefits of these strategic IS applications are evident in improved sales performance and customer satisfaction.

The reliability and relevance of SEFITA's IS applications are closely monitored to ensure they meet the objectives for which they were designed. This involves evaluating whether the data generated by the system is accurate, actionable, and supports strategic decision-making.

In response to risks such as viruses, industrial espionage, or unexpected system malfunctions, SEFITA has implemented robust security protocols. These measures are critical to maintaining the integrity and continuity of the company's operations.

SEFITA has established a dashboard to regularly evaluate its IS performance against defined benchmarks. This evaluation ensures that the IS aligns with organizational goals and adheres to industry standards.

The findings from SEFITA's ERP implementation reveal significant variations in its effectiveness across departments, with notable impacts on operational and strategic performance. In the carded spinning department, the ERP system demonstrates considerable gaps, requiring improvements to enhance reliability and better align with the department's complex processes. On the other hand, the combed spinning department reports high satisfaction with its ERP system, which is supported by automated tools that provide real-time updates on production levels and inventory, ensuring operational efficiency.

In the weaving department, SEFITA's core activity, the ERP system is highly developed and undergoes continuous enhancements to adapt to production capacities and evolving order requirements, ensuring seamless alignment with strategic objectives. Across administrative services, ERP modules provide essential tools for managing key operations,

including invoice tracking, stock rotations, procurement processes, treasury oversight, and customs documentation, ensuring robust operational control.

These ERP implementations contribute positively to SEFITA's performance by enhancing product quality and resource optimization. Product quality strengthens SEFITA's competitive market positioning and customer satisfaction, which, in turn, supports financial performance. Resource optimization further contributes to cost efficiency and profitability, creating a distinct competitive advantage.

However, cultural dimensions such as work climate and employee engagement show weaker alignment, underscoring the need for targeted efforts to address these areas. Overall, the alignment of IS with SEFITA's strategic objectives has a profound positive impact on its organizational performance, as highlighted by its product quality and resource efficiency, while cultural barriers remain a challenge.

5. DISCUSSION

Insights from SEFITA's ERP project got the role of strategic information systems (IS) alignment within the organizational context to improve performance that get the right IS tools and how the same is aligned to the strategic objective of the company is well demonstrated through ERP modules (woven, combed spinning). ERP systems have also proved to be beneficial in these functions as they led to increased production efficiency, real-time inventory management and customer satisfaction, which substantiate the case for functional integration and strategic fit (as described in the Strategic Review). On the other hand, the alignment is not apparent at all, in carded spinning, process needs could not be fulfilled with the current limited system reliability. Administrative and managerial functions have strong ERP support thanks to their powerful procurement, treasury, and customs management modules, which continue to facilitate operational visibility and control.

Performance indicators such as product quality and resource optimization are strongly linked to SEFITA's strategic IS alignment. High-quality products and optimized resources contribute to a competitive market position and financial profitability, but other cultural dimensions like work climate and employee engagement fall low marking issues in creating a holistic alignment including human factors. So while there is strong alignment at a technological level, there are still cultural and organisational barriers to overcome for these partnerships to ensure success in the long term.

Comparison with Literature SEFITA's experiences resonate with several key themes identified within the literature. SEFITA's effective use of ERP dashboards and

interdepartmental processes illustrates the significance of governance and communication, concepts identified by Luftman (1996). The company's performance in aspects such as product quality and efficient use of resources reinforces the results of Teo and King (1996) who recognized a positive link between IS alignment and profit. On the other hand, the challenges concerning cultural dimensions reverberate studies Lederer and Mendelow (1989)

Unique insights from SEFITA include the sector-specific challenges in aligning IS with the complex production processes of the textile industry. While the literature often focuses on general alignment frameworks, SEFITA's case study illustrates the need for tailored approaches to address industry-specific dynamics, such as production variability and market responsiveness. This contributes to a nuanced understanding of IS alignment in manufacturing contexts.

5. CONCLUSION

In the framework of this work, we set out to characterize the positive impact of strategic alignment of information systems on the organizational performance of companies.

Certainly, in today's economic environment, companies make up the bulk of a country's economic structure. As a result, various organizations are concerned with their development, in particular through the implementation of information technologies.

This forces companies to constantly monitor local, national and international level, mainly due to the high demand for information (contextual, economic, financial, technical) the seriousness of the challenge often compels organizations to formulate a solid strategic success will depend on the level of involvement of organizations, which will lead to rigorous management of information systems in line with strategic objectives.

With the right strategic positioning and skills aligned with business strategies, this latter function can create a significant competitive advantage, as all organizational choices and personal and organizational skills are aligned with business strategies to enhance performance.

This study reinforces the relevance of the SAM framework in understanding IS alignment and its impact on organizational performance. However, SEFITA's case study highlights areas where existing models could be expanded. Specifically, integrating cultural dimensions such as employee engagement and organizational climate into alignment frameworks could provide a more holistic perspective. The findings also suggest the need for sector-specific modifications to general IS alignment theories, particularly in industries like textiles with unique operational challenges.

6. LIMITATION

Despite this, providing valuable insight, the study is based on a single firm limiting the generalizability. May the results not be generalizable to other businesses, or industries. Additionally, reliance on qualitative data derived from observations and interviews may introduce subjectivity which may be addressed in future studies using quantitative analyses.

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