
Analysis of Business and IT Strategic Alignment Maturity Diagnosis of a Health Measurement Using the SAM Method

Maya Sari^{1*}, Dedy², Eligia Monixa Salfarini³, Linda Wahyuni⁴

¹Information Systems, Institut Shanti Bhuna

^{2,3}Management, Institut Shanti Bhuna

⁴Agroekotechnology, Institut Shanti Bhuna

^{1,2,3,4}Jl. Bukit Karmel No. 1, SeboPET, Kec. Bengkayang, Kab. Bengkayang, Kalimantan Barat 79211

**E-mail: maya.sari@shantibhuana.ac.id¹, dedy@shantibhuana.ac.id², eligia1609@shantibhuana.ac.id³,
lindawahyuni@shantibhuana.ac.id⁴**

Submitted: 03/31/2026 , Revision: 05/06/2026, Accepted : 07/05/2026

Abstract

This study's remaining sections look at the following aspects. It starts by summarizing the conceptual foundations, history, and description of Luftman's SAM model. Next, a description is given of the most important aspects of the healthcare organization under investigation. The research then describes how Luftman's SAM instrument was used in this organization. Luftman's determined dimensions are then used to summarize the findings. Our results are compared to those of Latin American and healthcare organizations that have previously been published. The report discusses the instrument's application and possible limitations before concluding with significant conclusions and recommendations for additional research.

Keywords:

Strategic Alignment Model;
Business-IT Alignment;
Alignment Maturity;
SAM Method;
Luftman SAMM;

***Corresponding Author: Maya Sari**

E-mail: maya.sari@shantibhuana.ac.id

1. Introduction

In modern society, the integration of technology into our everyday life is becoming a more important concern. Organizations can enhance their strategic outcomes by optimizing, improving, and redesigning services and products thanks to information technologies (ITs). Additionally, digital transformation uses digitalization techniques, structures, processes, and practices to achieve organizational and strategic transformation goals. An increasingly important issue in our culture is the integration of technology into our daily life. Organizations can enhance their strategic outcomes by optimizing, improving, and revamping their services and products with the help of information technology (ITs). Additionally, digital transformation uses digitalization techniques, structures, processes, and practices to achieve organizational and strategic transformation goals [1]. A recent Gartner publication predicts that 50% of organizations will experience more significant collaboration between business and IT teams by 2025 [2]. However, real-world data has demonstrated that it is challenging for many firms to properly connect business and IT. Since sufficient IT-business alignment is a prerequisite for initiating a meaningful digital transformation, this obstacle also impacts the efforts of businesses looking to develop digital transformation initiatives [3]. Numerous strategies have been put forth to enhance alignment, and tools for measuring its level of maturity have been developed [4]. Identified six dimensions that should be evaluated and controlled in order to reach a harmonic IT-business relationship that leads to proper alignment and the achievement of an organization's goals. The digital transformation of industrial production in manufacturing companies necessitates not only the adoption of cyber-physical systems and Internet of Things (IoT) platforms, but also a focus on readapting processes and the organization as a whole to address a business and added-value issue. Offered a framework for evaluating and advising on Industry 4.0 deployments. Certain components and ideas from capability maturity models (CMM) and alignment models pertaining to ITs and strategies, business processes, and organizational structures are incorporated into this framework. A strategy for developing and managing a portfolio of strategic IT projects, integrating senior management levels in decision-making to align IT with business goals, and encouraging collaboration, communication, and

leadership was put out in a broader business framework. In order to ascertain how digital alignment is attained, 43 small and medium-sized businesses (SMEs) were studied. A model for digital alignment in SMEs was proposed using their findings, a basic framework, and an inductive analysis. These writers distinguished five stages of digital alignment, from transformation to passive acceptance. Several businesses in various economic sectors have been assessed to determine their level of alignment using the Luftman instrument. In one recent survey, 2,87% of the 395 US Fortune 1000 businesses were in the healthcare industry. Furthermore, it is important to note that, despite the fact that healthcare is a crucial component for developing nations—especially in light of the current state of public health worldwide—ITs are not given much weight by these organizations. The past several years have been grueling for the healthcare and life sciences industry, with internal and external dynamics collectively forcing organizations to transform their operation and business models. Healthcare delivery organizations (HDOs) are investigating digital health options to address the rising issue of a scarcity of healthcare workers. In terms of increasing patient experience, population health, cost reduction, and the quality of life for healthcare professionals and staff, digital health products and services have demonstrated positive outcomes. The industry's adoption of digital health solutions has increased because to the COVID-19 pandemic, and HDOs now concur that digital transformation needs to be accelerated. According to Gartner, HDO CIOs (Chief information Officers) should take the following steps to accelerate digital transformation in the healthcare industry includes telehealth, remote patient monitoring, and patient portals [5].

Utilizing the COVID-19 pandemic as a chance to implement digital-first, enterprise-grade technology domains in pandemic-driven digital efforts. HDOs will benefit from this as they get ready for the future.

Adopting a digital-first business strategy that makes digital interactions the first, preferred, and ubiquitous medium for engagement, health, and healthcare delivery can help you become ready for a new normal. The future of the healthcare sector depends on this, but it will necessitate a major cultural change within HDOs.

The healthcare industry in Colombia is extremely troublesome and the source of the majority of citizen complaints. Nonetheless, Colombia's healthcare industry is seeing some sort of change due to digital revolution. To increase the effectiveness, accessibility, and quality of care, the government has funded digital health programs including telemedicine and electronic health records. Colombia's healthcare system could be significantly impacted by these initiatives [1]. Strictly speaking, there are still no rules for putting in place designs that combine technical platforms and health information systems, and numerous regional solutions have developed over time. IT solutions are frequently incompatible or not integrated with government systems, which seriously hinders the transmission of information. Consequently, business activities are supported by discrete systems, which results in redundant work, poor data quality, and inadequate coverage. Poor patient care and subpar healthcare services are the outcome of this lack of integration, resources, and standardization. Additionally, health data is an essential component of information and knowledge management that aims to improve state-wide and regional decision-making. It would be feasible to predict health trends and take proactive, thoughtful steps to address any issues or hazards to the populace thanks to the information produced. However, the business units and ITs utilized in the health sector must be sufficiently aligned for this usage of data and its subsequent conversion into information and knowledge [6]. Given the foregoing, the following is the research question that directs our case study:

Using Luftman's strategic alignment maturity (SAM) model, this study attempts to diagnose the strategic alignment maturity inside an entity in the health sector in order to address this question and as an initial exploratory step. In order to plan IT-business alignment for the region's health sector and then modify the business strategy and embrace cutting-edge digital technologies that support it, diagnosis is a crucial first step.

The technical alignment elements in the dimensions provided by Luftman's SAM model were examined. at particular, we carried out a case study to assess the degree of alignment between the business and IT departments at a health sector organization in Villavicencio, Colombia. We also used this study to evaluate the cross-sectional aspect of the instrument. Based on this experience, we offer suggestions for

applying the model and highlight its potential drawbacks and advantages in relation to the subject under study [7].

The following aspects are examined in the rest of this study. It begins by outlining Luftman's SAM model's origins, conceptual underpinnings, and description. The most pertinent features of the healthcare organization being examined are then described. The application of Luftman's SAM instrument within this organization is then described in the study. The results are then summarized using Luftman's established dimensions. Our findings are contrasted with those of previously published Latin American and healthcare organizations. The report finishes with important conclusions and suggestions for further research after discussing the instrument's application and potential limits [8].

2. Methods

2.1 Description of the analyzed healthcare entity

A significant portion of the Orinoquía region is covered by the Department of Meta (Colombia), which has 98,1726 residents spread throughout 29 municipalities. Villavicencio, its capital, is home to more than 450,000 people and has the most advanced healthcare services in the area (DANE, n.d.). More than 397 organizations in Villavicencio offer and support health services. Additionally, 104 372 persons, or 23% of the population, are served by the Departmental Hospital and 42 clinics [9]:

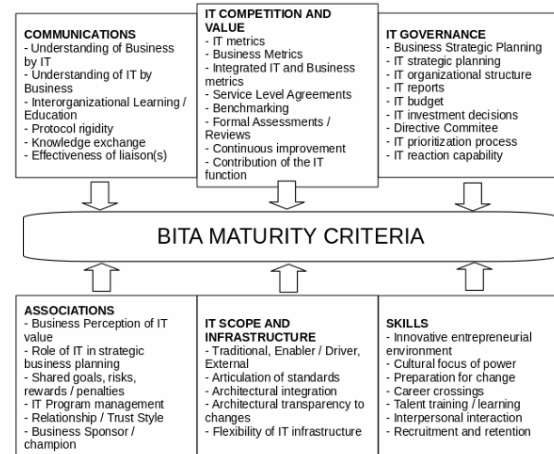


Figure 1. Alignment maturity dimensions and criteria

Source: Adapted from [10]

The selected healthcare entity has provided both basic and specialized services to the citizens of Villavicencio and the Orinoquía region since the 1970s. However, according to the established national classifications, it does provide services at the most advanced level. Its services include intensive care units (ICU), hospitalization, surgery, outpatient consultation, diagnosis, therapeutic

support, emergencies, rehabilitation, medical and surgical treatments, and highly qualified specialists. For the sake of confidentiality, this hospital is hereinafter referred to as the healthcare entity [6].

Table 1. Each dimension is assessed across five maturity levels [10]

Level 1 (Initial/Ad Hoc)	Processes are informal, chaotic, and reactive.
Level 2 (Committed)	Initial processes are established but limited in scope.
Level 3 (Established)	Formal processes are documented and standardized.
Level 4 (Improved/Managed)	Processes are measured, managed, and proactively improved.
Level 5 (Optimized)	Processes are continuously refined and integrated across the enterprise

Organizational structure

The healthcare entity has more than 700 employees, including administrative and functional areas. The entity's workforce can be grouped into four areas: administrative, healthcare, IT, and support staff (Table 2). There is a general management unit in its organizational structure, on which two management units and three directorates depend. The two management areas are called Medical Management and Administrative/Financial Management, while the three directorates are Human Resources, Operations, and Technology. The Technology Directorate provides services to all of the entity's supporting processes, which are both managerial and operational in nature.

Table 2. Amount of personnel per area

Area	People	%
Administrative	19	3
Healthcare	541	73
IT	7	1
Support staff	172	23

2.2 Diagnosis of the business-IT maturity level

This study This study is a descriptive research with a mixed approach It is based on the questionnaire defined by Luftman Considering that the instrument is designed for business and IT areas, a discretionary sample of 31 people from the

administrative, healthcare, and IT areas was interviewed and surveyed. This section clarifies the processes carried out to apply Luftman's instrument: data collection, processing, and results interpretation [11]. Applying Luftman's SAM instrument information One of the authors interviewed the selected staff, collecting qualitative information to understand the organization and the personnel's perspectives on each evaluated factor. The interviewer clarified the study's objectives in each meeting and characterized the interviewee (role, responsibilities, and experience). Then, the questionnaire was applied. The interviews lasted approximately one hour, and they were carried out between December 2019 and April 2020.

Data collection

The data collection process was backed by the healthcare entity's Quality Office and was conducted as follows. First, we identified key personnel in each organizational unit in order to interview them. They were classified into three categories according to their participation and responsibilities in strategic management within their units: i) strategic: people who make strategic decisions; ii) functional: employees responsible for the operation and monitoring of strategic decisions within the unit; iii) operational: staff who are in charge of executing day-to-day operations and are generally are not involved in making strategic decisions. Second, we contacted the selected staff to explain the study's goals and procedure. Third, we carried out five pilot tests in the healthcare entity with people from each administrative, IT, and support area. These tests allowed fine-tuning the procedure and vocabulary used, making the necessary adjustments to clarify the questions, and improving the tools employed (presentation, form, and interview). Lastly, we scheduled and conducted the interviews in order to apply the Luftman instrument and collect information. Table 3 shows the categorization of the interviewees. This study's data come from the interviews and Luftman questionnaire responses. In addition, 27 out of 31 interviews were recorded, transcribed, and examined in order to obtain relevant information for each dimension of the Luftman instrument. The data collected were synthesized in tables and graphs, and basic descriptive statistical methods were used to analyze them [12].

Table 3. Distribution of the interviewed personnel

Process	Strategic	Functional	Operative
General management	1		

User management		1	
Quality management	1	4	
Purchases and storage management	1		
Infrastructure management		2	
Admissions		1	
Financial management	1		
Human resources		1	
Hospitalization		2	
Legal		1	
Service delivery planning	1		
Radiology and imaging		1	
Ambulatory services		2	
ICU Adults		1	
Surgery		2	
UCIA (intensive care unit for adults)		1	
UCIN (intensive care unit for neonates)		1	
Emergencies		1	
Statistics		1	
IT Directorate	1		3
Total	6	22	3

3.1. Results interpretation

This section summarized the results obtained according to the six dimensions defined by Luftman. The average response to each question is tabulated for each dimension, and the general average is also presented. In all cases, the scores range from one (the lowest grade) to five (the highest grade). These quantitative data are briefly analyzed and complemented with a synthesis of the interviewees' perceptions [13].

Communication

Table 4. Communication

Question	1	2	3	4	5	6
Average	2,68	2,48	2,77	2,10	2,35	1,61
Dimension average: 2,33						

First of all, the scores indicate that one area's knowledge of the other is limited (Table 4. Communication). The data collected show that the current flow and effectiveness of the

communications between the IT and business areas do not allow them to fully understand each other's processes, functions, strategies, plans, IT environments, risks, and priorities. They exchange information primarily when the internal needs of the entity require it. Instead of having permanent channels to promote the transfer of information and collaboration, the manager of each area works individually, guided by their own needs and plans.

Moreover, the effectiveness of the knowledge exchange is low. They have semi-structured guidelines, and there is no complete understanding of them. There is no cohesion at the strategic level between the IT and business areas; their communication is mainly transactional, where priorities are associated with operational information. The organization is increasingly aware of the benefits of technology to all its processes. For example, the management of information systems has helped the institution fulfill the national regulations regarding the periodic report of the variables requested by the government institutions for surveillance and control purposes. Furthermore, it is worth noting that the structuring and exchange of knowledge between the IT and business areas are underway. Furthermore, it is worth mentioning that the entity uses standard methods to offer organizational learning sessions, as defined in its internal communication manual. We can conclude that the organization has a hierarchical and bureaucratic organizational structure, and that the communication style is mainly unidirectional: from the strategic levels to the other dependencies.

IT competence and value

Table 5. IT competence and value

Question	1	2	3	4	5	6	7	8
Average	1,40	1,87	2,00	2,00	2,03	2,13	1,94	4,00
Dimension average: 2,17								

The results in this regard (Table 5) reveal that the healthcare entity does not use metrics for measuring the value added by IT to the business strategy. The institution uses measures to assess technical factors such as the system's availability and response times. However, they only perform a cost benefit evaluation of IT investment regarding administrative and managerial matters when the need arises. There

is no systematic feedback between the IT and business areas, which is corroborated by the interviewees' opinions. Service-level agreements are oriented towards operational issues. In that sense, any established processes should measure and track user satisfaction, and the information collected should be the basis for implementing improvement actions. Benchmarking practices are beginning to be used. During this study, the organization was migrating to a new information system that offers more and better functionalities and encompasses more business processes. This new system was selected through a rigorous benchmarking process that involved all interested areas. It was found that 77,4% of the participants believe that IT has made a solid contribution to achieving the organization's strategic objectives. This suggests that IT supports their business goals despite lacking formal metrics. IT governance The evidence shows that business planning is carried out with minimal participation from the IT area (Table 6. IT governance). Moreover, there is no specific IT budget, and, like any other institution's IT department, the area determines its needs and submits them to the financial area. After that, the financial area makes decisions regarding financial approval, considering all requests from all areas. Due to this competition for resources, IT projects are sometimes not funded.

Table 6. IT governance

Question	1	2	3	4	5	6	7
Average	2,29	2,33	1,48	3,03	2,10	1,90	3,10
Dimension average: 2,32							

Despite this, the participants know that IT is an enabler of business strategy. In other words, the organization recognizes that IT investment decisions are strongly connected to improving business effectiveness. Furthermore, it is well known that IT cannot appropriately respond to all of the organization's requests, as it is such a small area. Thus, the perception that IT does not respond appropriately to business requirements is justified. In this dimension, it is interesting that the assessment of the seven factors was dispersed. The lower-graded factors indicate that the healthcare entity must improve the IT budget criteria and prioritize IT projects. The need to strengthen the IT department is evident; it requires a stable budget that allows them to carry out more technology projects. A requirements engineering process should be

implemented, so that each department can determine the best way to enhance business processes through IT.

Partnership/association

Table 7. Partnership/association

Question	1	2	3	4	5	6
Average	3,39	2,39	1,67	2,14	3,00	2,32
Dimension average: 2,48						

As already mentioned, the IT area is perceived as a fundamental enabler of business operations. All interviewees consider that information systems are easing decision making by providing accurate and timely data. Although the IT area is still used more to enable business processes than to drive its strategy, they already regard the association between the areas as a long-term relationship. According to the responses, the entity manages relationships on an ad hoc basis, without formal processes between areas or a high-level promoter from the business area who drives initiatives (Table 7. Partnership/association).

A fact that stands out is that 45,16% of the respondents perceive the IT area as a fundamental driver for the entity's activities. Moreover, 51,61% consider IT to be responsible for most risks and state that it receives little reward for successful initiatives. There are divergent opinions regarding the type of relationship between IT and the business. For the functional areas, the relationship with IT is transactional, i.e., they mainly request and receive technical support. In contrast, the relationship is viewed as a partnership with regard to administrative roles and IT. Scope and infrastructure of IT For the majority of the interviewees, the technological infrastructure is driven by business strategy requirements. For some, it is emerging as a resource that can enable a rapid response to changes in the market (Table 8. Scope and infrastructure of IT). However, from the IT area's perspective, this is achieved at a very high cost and with a meager reward. Thus, for them, there is a clear effort-reward imbalance.

Table 8. Scope and infrastructure of IT

Question	1	2	3	4	5
Average	2,39	2,21	2,17	1,23	2,55

The healthcare entity mostly has transaction-oriented information systems and business process enablers. In this case, standards are applied at the

functional area level for all patient care management. Furthermore, changes in the entity systems are generally disruptive, affecting the functional units where the change requirements arise. 77,42% of the interviewees indicate that changes cause inconveniences and affect their activities. Furthermore, 35,48% indicate that the business strategy's requirements determine the organization's technological infrastructure. This dimension exhibited the lowest score, with a maturity degree of 2. This result reveals a low level regarding infrastructure flexibility and the ability to incorporate and manage new technologies. IT skills

Table 9. IT skills

Question	1	2	3	4	5	6	7
Average	2,35	2,19	2,97	1,82	1,97	3,06	2,38
Dimension average: 2,39							

For the analyzed entity, entrepreneurship is moderately encouraged by functional units, and essential technology decisions are regularly made by senior management (Table 9. IT skills). As an institution regulated by health protocols, it is well prepared for changes at the functional level. IT is currently making a software change to manage its missional patient care and transversal processes. Likewise, we identified a well-defined process for managing resistance to change through training programs, awareness campaigns, information dissemination initiatives, and feedback. Staff exchange between the IT and business areas seldom occurs. Most of the personnel interviewed express that genuine trust has been reached between the two areas. Hiring is focused on the applicant's technical expertise. The institution has training plans, but they depend on the needs of the functional units.

3.2. Findings and recommendations

According to our analysis, there is an evident effort-reward imbalance in the IT area. Currently, IT is the area that assumes all the risks associated with IT-based decisions and receives a low reward for its work with all of the entity's units. Risks must be shared with the business area as a necessary attitude for establishing trust and partnership between them. As stated by [14] the senior management level must be involved in IT strategy and plans to improve alignment and enable the digital transformation of business processes. Similarly, we suggest starting an internal program that addresses the lack of knowledge about the value

of IT for the entire organization. This should make IT plans, strategies, and actions known and stress the importance of funding IT initiatives. Understanding that technology infrastructure and the strategic direction of the organization must be synchronized is pivotal for addressing new business opportunities.

It would be helpful for managers to acquire a deeper understanding of the processes, roles, and responsibilities of other areas. This will enrich knowledge and facilitate the construction of more cohesive strategic plans, allowing to develop projects that meet the requirements of the business, as well as for the continuous evaluation, control, and evolution of the organization's enterprise architecture. The interviews uncover the lack of effective communication, showing that there is currently no full integration of IT into business areas. Each area is only qualified to perform its tasks and executes them according to what is established. Most interviewees have a comprehensive understanding of organizational strategies, plans, and goals but are unaware of IT environments and their management. The priorities regarding interaction between the IT and business areas are determined more by periodic needs than by precise requirements that allow the institution to achieve a managed business architecture. In addition, there is no consolidation of risks that allows generating a response and contingency plans to transversal processes; only those of the IT area are established. Therefore, IT must lead a holistic study of the risks since they have more knowledge about their consequences and the strategies for mitigating them. Likewise, our analysis indicates that the healthcare entity does not use metrics to assess the contribution of IT in reaching its strategic goals. It is quite noticeable that there is little participation by the IT and business areas in planning (IT governance dimension). This state of affairs leads to a basic structuring that seeks to meet the functional needs rather than strategic ones. Moreover, it is necessary to strengthen mutual trust between the areas in order to consolidate the role of IT in the organization, as well as to formalize processes so that IT initiatives are better supported by business personnel. The scope and strength of the IT area are limited due to the unit's small size, both in staff and equipment. This lack of resources reduces its capacity to provide flexibility and support for the infrastructure. Improving IT size, resources, training, and skills should aim towards ensuring its suitability to carry out current activities and

overcome future challenges. Despite the low maturity level and the limitations regarding personnel and resources in the IT area, it is essential to recognize that the IT department supports information technologies that allow the institution to fulfill the goals of the healthcare sector and timely report to the regional surveillance entities. It is worth mentioning that the healthcare entity has taken an essential step by changing the technology used in order to control transversal and core mission processes. Gradually, the other areas are giving more importance to the role of IT. Thus, the entity is evolving into a state where the IT area defines business strategies and plans. The role of IT will transition from a mere service provider to an enabler of the organization's strategic plans. The Ambulatory and Hospital Health accreditation process that the entity has undertaken allows it to design and improve processes that will be fundamental to reach the next degree of maturity. Some of them are related to information management, as the Ministry of Health seeks to integrate all healthcare and administrative areas. This integration will also bolster all technical resources and improve decision making at all levels, in addition to technology management [9].

3.3. Limitations of the case study

While the COVID-19 pandemic undoubtedly presented challenges, we were fortunate to complete the interviews for this study. Now, we can turn our attention to understanding the impact it had on both the interview process and the institution itself. Second, based on our experience with the Luftman instrument, we believe that its application must be preceded by a characterization of the entity, allowing the interviewers to become familiar with core aspects of the institution, such as its organizational culture, structure, mission and vision, values, and principles. Third, although the instrument's application reveals the alignment gaps between the IT and business areas, the design of an action plan that ensures alignment is not evident and direct. Finally, we consider it essential to carry out the interviews in person, in addition to guiding the respondents, as they may not understand the terminology of the questionnaire or misinterpret its questions.[15].

4. Discussion and Conclusions

In this paper, we applied the strategic alignment maturity (SAM) model to diagnose the

maturity of strategic alignment in a healthcare entity. Our findings indicate that the entity's IT area is little involved in the organization's strategic planning. This suggests that more integration between the IT and business areas is needed to develop joint strategic plans and programs. Gartner reports (Gartner, n.d.-a) that healthcare providers are planning to invest in AI/ML, distributed cloud, responsible AI, multi-experience development platforms, 5G, and other technologies for 2025. They are also investing in cybersecurity/information security, application modernization, business intelligence/data analytics, cloud platforms, and enterprise resource planning. This is in line with our findings, which indicate that the healthcare entity is investing in new technologies but is not yet fully aligned with its strategic goals. The pace of digital transformation in healthcare provider organizations is accelerating, and CIOs and technology executives are anticipating increased investments in IT to achieve their organizations' strategic objectives. However, they are also facing challenges in establishing a shared enterprise digital vision. Here are some specific challenges that CIOs and technology executives are facing:

1. Reconciling new technologies with existing enterprise strategies. New technologies like AI/ML offer transformational clinical and business benefits, but they can be difficult to integrate with existing enterprise systems.
2. Achieving consensus and developing a clear action plan. It can be difficult to get everyone on the same page regarding the organization's digital transformation strategy.

Despite these challenges, the future of healthcare is digital. CIOs and technology executives who can successfully navigate these challenges will be well-positioned to lead their organizations into the digital age. In addition to the above, we believe that the Luftman instrument remains a relevant tool for IT governance and digital transformation initiatives within organizations. It can be used to diagnose the maturity of strategic alignment, to develop a roadmap for improvement, and to complement initiatives such as digital maturity models (DMM) [4] or readiness assessments [2]. We also believe that it is important to develop methods and actions aimed at creating and maintaining a close and harmonic relationship between business and IT strategies. This will be essential for healthcare organizations to succeed in the digital age. We hope

that our findings will be useful to healthcare organizations seeking to improve their strategic alignment and digital transformation efforts.

References

- [1] M. Ivanova, "An Enterprise Architecture - Based Approach to the IT - Business Alignment : An Integration of SAM and TOGAF Framework," pp. 1–11, 2021.
- [2] E. . Van Hout, *Measuring strategic business-IT alignment on the construction and validation of a measurement model for strategic business-IT alignment*. 2021.
- [3] A. Mechman, O. Siti, K. Ghaffar, B. Jamal, and A. Moham-, "The effect of information technology business alignment factors on performance of SMEs," vol. 11, pp. 833–842, 2021, doi: 10.5267/j.msl.2020.10.019.
- [4] S. Ahuja, *Strategic Alignment Maturity Model (SAMM) in a Cascading Balanced Scorecard (BSC) Environment : Utilization and Challenges*. 2020.
- [5] M. Er, P. Korespondensi, and I. Technology-business, "ANALISIS KESELARASAN TEKNOLOGI INFORMASI DAN BISNIS MENGGUNAKAN STRATEGIC ALIGNMENT MODEL MATURITY (SAMM) DI ANALYSIS OF HARMONY OF INFORMATION TECHNOLOGY AND BUSINESS USING STRATEGIC ALIGNMENT MODEL MATURITY (SAMM) AT FLORES," vol. 9, no. 3, pp. 559–568, 2022, doi: 10.25126/jtiik.202295464.
- [6] P. Bhattacharya, "ScienceDirect ScienceDirect Aligning Enterprise Systems Capabilities with Business Strategy : Aligning Enterprise Systems Capabilities with Business Strategy : An extension of the Strategic Alignment Model (SAM) using An extension of the Strategic Align," *Procedia Comput. Sci.*, vol. 138, pp. 655–662, 2021, doi: 10.1016/j.procs.2018.10.087.
- [7] H. Iskandar, I. Koto, and D. M. Yulanto, "Instructional Design of Successive Approximations Model (SAM) for Project-Based Learning Media Development," 2022, doi: 10.4108/eai.11-10-2022.2325511.
- [8] H. Jung, G. Education, S. Korea, and Y. R. Kim, "Advanced Instructional Design for Successive E-Learning : Based on the Successive Approximation Model (SAM)," vol. 18, pp. 191–204, 2019.
- [9] M. El Mekawy, L. Rusu, and N. Ahmed, "Business and IT Alignment : An Evaluation of Strategic Alignment Models," pp. 447–448, 2022.
- [10] S. A. M. De Luftman, "Business-IT Alignment Maturity Diagnosis of a Health Organization using Luftman ' s SAM Model," vol. 2024, 2024.
- [11] S. Z. Dila, H. Pramudita, A. P. Abdillah, and R. H. Maharani, "Measurement of information system maturity at PT Bee solution partner using the SAMM method," vol. 13, no. 1, pp. 214–220, 2024.
- [12] A. Izza *et al.*, "ANALISIS MODEL SAM / R PADA GURU PENDIDIKAN AGAMA ISLAM DALAM," vol. 04, no. 01, pp. 11–34, 2020.
- [13] S. Berberat, "Assessing a Business Software Application using Strategic IT Alignment Factors : A New Way for IS Evaluation?," vol. 2019, no. 1956, pp. 77–89, 2021.
- [14] N. B. Puspitasari, A. D. Rahmadi, and S. Saptadi, "Strategic alignment maturity assessment on conventional bank ' s information technology," vol. 3, no. 2, pp. 53–63, 2022.
- [15] B. Fachri, M. Iqbal, and M. Hasanuddin, "Measuring IT-Business Strategic Alignment in Indonesian Digital deliver measurable business value and contribute to," 2025.