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IS/IT Strategic Planning for Digital Maturity Development in an FMCG Skincare Enterprise

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Abstract. In this study, an IS/IT strategic plan will be developed for FMCG Skincare Enterprises, a firm that operates within the oral care and personal care sector, with a high regard for innovation in its products. This research adopts a qualitative descriptive case study methodology, whereby the study deliberately narrows down the scope of investigation to a single organization. Within this framework, the Ward and Peppard model is used to examine the external and internal environments of the business, in order to determine the information needs of the organization. Besides, the McFarlan Strategic Grid is applied to categorize and prioritize IS/IT initiatives in terms of their strategic importance. Based on the results, it is evident that the firm enjoys numerous competitive advantages, such as having innovative products and employing shoppertainment marketing strategies using digital technology to widen the market coverage. Nonetheless, the results also point out some strategic problems that the organization faces, such as having low production capacity and being heavily reliant on a specific digital marketing channel, TikTok Shop. This study proposes a hybrid system development strategy as the best way to incorporate digital systems. The IS/IT strategic roadmap proposed will enable the firm to improve its digital structure, increase efficiency, and ensure that it transforms into a competitive organization in the beauty industry over time.

Keywords: IS/IT Strategic Planning, Ward and Peppard, McFarlan Strategic Grid, Digital Maturity, FMCG Skincare Enterprises, Case Study

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1. INTRODUCTION

Digital transformation has become increasingly essential for ensuring that business processes, organizational structures, and information systems are aligned to support value creation [1], [2]. Rather than being viewed merely as a technological upgrade, digital transformation now represents a broader organizational shift that affects how firms operate, compete, and respond to market change. For companies operating in dynamic industries, the ability to integrate digital tools with strategic objectives is no longer optional but central to long-term sustainability. In this sense, digital transformation serves as both an operational necessity and a strategic enabler for business growth.

In recent years, the Fast-Moving Consumer Goods (FMCG) industry has experienced major disruption as digitalization has reshaped key business functions, especially in the skincare sector. This transformation has been accelerated by the rapid rise of digital commerce platforms such as TikTok Shop, Shopee, Tokopedia, and Lazada, which have significantly altered the traditional retail environment and shifted consumption behavior toward digital channels [3], [4]. As a result, emerging skincare brands now have greater access to wider markets, more direct customer interaction, and faster routes to commercialization. At the same time, this shift has created new operational pressures, including the need to manage digital channels effectively, respond quickly to changing consumer preferences, and maintain competitiveness in an increasingly data-driven marketplace.

An organization's digital maturity can be understood as the degree to which data-driven activities, business processes, and IT capabilities are integrated in ways that enable responsiveness to changing market conditions [5]-[9]. In this regard, IT strategic planning provides a formal and structured mechanism for aligning digital initiatives with broader business goals and for identifying technology priorities that support organizational development. For skincare FMCG companies operating in highly competitive environments, this may include the adoption of customer analytics, end-to-end supply chain visibility, integrated digital customer experience platforms, and automated digital marketing systems within a coherent IT architecture [10], [11]. Recent findings also indicate that successful digital transformation depends not only on executive support and CEO leadership, but also on organizational readiness, operational preparedness, digital

infrastructure, and the continuous development of digital knowledge and capabilities [12], [13].

At the same time, the growing prominence of digital ecosystems highlights the importance of flexible and scalable IT strategies that can adapt to fluctuating market conditions. Existing studies suggest that maturity-oriented digital strategies can help organizations cope with uncertainty, manage volatility, and sustain performance in complex digital environments [14], [15]. However, limited attention has been given to how IT strategic planning can be systematically integrated with different stages of digital maturity in small FMCG skincare companies, particularly those operating under resource constraints [16], [17]. This gap is especially important because smaller firms often face unique limitations in terms of capital, technological infrastructure, and managerial capacity, making strategic prioritization even more critical.

This paper seeks to address that gap by examining the alignment between IT strategic planning and digital maturity levels through a case study of a consumer goods skincare company [18], [19], [20]. Existing research frequently discusses digital maturity at a conceptual level, but often does not provide a systematic strategic planning framework that reflects the realities of market entry, early digital adoption, and the gradual development of digital capabilities. To respond to this limitation, the present study proposes an IT strategic planning framework that links digital transformation initiatives to the stages of a company's digital maturity. The study is distinctive in that it integrates digital maturity concepts with strategic IT planning in order to support organizations as they progress from early digital adoption toward a more integrated digital ecosystem. Accordingly, the objective of this research is to develop a structured IT strategic plan that aligns technology infrastructure, digital capabilities, and business objectives. The proposed conceptual framework illustrating the relationship between IT strategic planning, digital transformation drivers, and the advancement of digital maturity, while the analytical findings and recommended initiatives are detailed in the subsequent strategic tables. By offering a case-based application, the findings provide a strategic reference for digital capability development in emerging FMCG skincare companies seeking sustainable competitive advantage in increasingly digitalized markets.

2. METHODS

This study employed a qualitative case study approach to examine the alignment between IT strategic planning and digital maturity in an FMCG skincare enterprise. The research design was intended to capture the company's current business conditions, digital practices, and strategic needs in a real organizational context. To support a systematic analysis, the study adopted the Ward and Peppard information systems strategic planning framework, which was complemented by business process analysis, SWOT analysis, value chain analysis, gap analysis, and application portfolio mapping. This combination of methods enabled the study to assess both the organizational environment and the strategic role of IS/IT in supporting business development [21], [22].

2.1. Investigation Process Flow

As illustrated in Figure 1, the investigation followed a structured sequence of stages. The process began with the identification of problems, which aimed to clarify the key business and digital issues faced by the company. After the main problems had been defined, data were collected through interviews, documentation review, and direct observation in order to obtain a comprehensive understanding of the enterprise's operational and strategic conditions. These data were then analyzed through business process mapping, SWOT analysis, value chain analysis, and gap analysis to identify the company's current position, strategic challenges, and opportunities for digital improvement.

The results of these analytical stages were subsequently used as the basis for the formulation of IS/IT strategy using the Ward and Peppard framework. This framework was selected because it offers a systematic approach for aligning business strategy with information systems and information technology capabilities. After the strategic recommendations had been formulated, the proposed applications were classified using the McFarlan Strategic Grid in order to determine their relative priority and strategic contribution to the organization. Through this process, the study not only identified organizational needs but also translated them into a structured portfolio of digital initiatives [21], [22].

2.2. Data Collection

To strengthen the reliability of the findings, this study used multiple sources of evidence and applied a data triangulation approach [23]. Data were collected through semi-structured interviews, document analysis, and direct observation, allowing the research to capture perspectives from both managerial and operational levels. The interviews were conducted with the owner, the Regional Sales Manager, the IT Manager, and five IT staff members, comprising eight sessions of one hour each and focused on the company's ongoing challenges, digital priorities, business processes, and expectations regarding technology adoption. This approach made it possible to explore not only formal strategic intentions but also the practical issues encountered in day-to-day operations.

Document analysis was conducted to complement and verify the interview findings. The reviewed materials included internal documentation related to production processes, marketing activities, sales channels, organizational structure, and the company's current use of digital platforms and IT tools. In addition, performance reports, including those generated from platforms such as TikTok Shop, were examined to provide insight into current digital commerce practices and business performance. These documents helped establish a more grounded understanding of how digital initiatives were being implemented and how they contributed to business operations.

Observation was also carried out to capture actual practices within the enterprise. This included observing production processes and their limitations, digital marketing activities, including shoppertainment practices, as well as order fulfillment procedures and customer interactions. Direct observation was important because it enabled the study to identify operational realities that might not be fully reflected in interviews or formal documents. By integrating these three data collection techniques, the study obtained a richer and more balanced view of the company's business and digital environment.

2.3. Data Analysis and Synthesis

The data analysis process was conducted iteratively, meaning that information obtained from interviews, documents, and observations was continuously compared, interpreted, and synthesized throughout the study. The first stage of analysis involved business process analysis, which aimed to map the company's primary and supporting activities, including research and development (R&D), production, distribution, digital marketing, and

customer service. Business process mapping was necessary because it helped identify the activities that created value and revealed areas in which digital technologies could improve efficiency, coordination, and responsiveness across the organizational value chain [24]. This stage also provided a foundation for understanding how the company currently operated and where digital intervention would be most beneficial.

The second stage focused on internal and external analysis through the use of SWOT and value chain analysis. SWOT analysis was first applied to identify the company's strengths, weaknesses, opportunities, and threats, thereby providing a strategic overview of the enterprise's internal condition and external environment. After that, value chain analysis was used to examine how business activities generated value and to identify where digital improvement could strengthen competitive advantage [25]. The combination of these two tools enabled the study to move beyond a general diagnosis and toward a more specific understanding of where digital strategy could produce meaningful business impact.

The third stage involved gap analysis, in which the findings from the SWOT and value chain analyses were compared with the company's strategic objectives [26]. This stage was intended to identify discrepancies between the organization's current capabilities and its desired future state. Through gap analysis, the study was able to determine which business and technological capabilities required priority attention, particularly in relation to digital integration, process efficiency, market responsiveness, and customer engagement. This step served as a bridge between environmental analysis and strategic formulation by translating observed weaknesses and missed opportunities into clearly defined strategic needs.

The fourth stage was the formulation of IS/IT strategy using the Ward and Peppard framework. Based on the gaps identified in the earlier stages, this framework was used to align business goals, information systems requirements, and IT capabilities in a coherent strategic plan [27]. The final stage consisted of application portfolio mapping using the McFarlan Strategic Grid, which classified proposed systems into four categories: Strategic, High Potential, Key Operational, and Support. This classification helped determine which applications were critical to current operations, which could drive future innovation, and which served supporting functions. As a result, the organization was

provided not only with strategic recommendations but also with a clear basis for prioritizing IS/IT investment and implementation [28].

2.4. Strategic Planning Framework Based on the Ward and Peppard Model

This study adopted the Ward and Peppard model as the primary framework for information systems strategic planning because of its emphasis on aligning organizational goals with IS/IT capabilities. The model consists of two major phases, namely the input stage and the output stage, as presented in Figure 1 [30]. The input stage includes a set of analytical activities designed to develop a comprehensive understanding of the business and technological environment. These activities include internal business analysis, external business analysis, internal IS/IT environment analysis, and external IS/IT environment analysis.

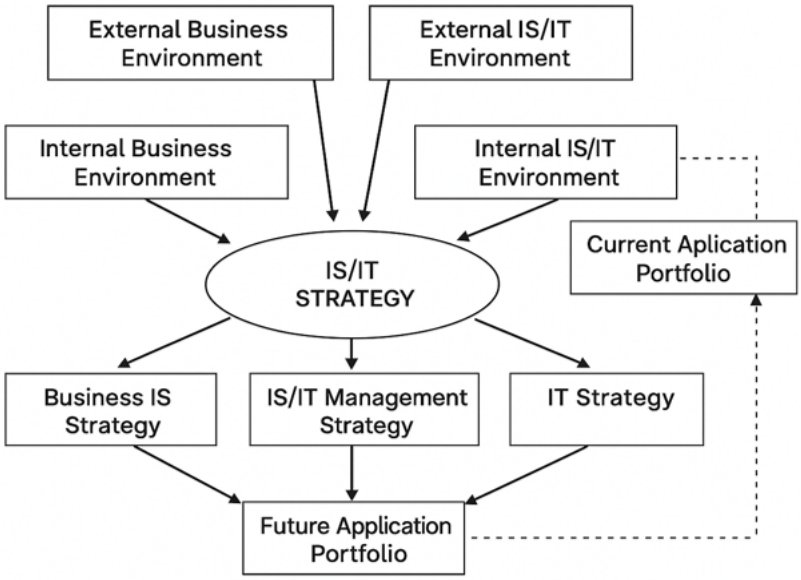


Figure 1. Ward and Peppard model, case in FMCG Skincare Enterprise [30]

Internal business analysis was conducted to examine the company's internal condition and identify its major strengths and weaknesses in relation to operations, resources, and strategic capabilities. External business analysis focused on factors outside the organization that could influence business strategy, such as market dynamics, competition, and changing consumer behavior. In parallel, the internal IS/IT environment analysis evaluated how information systems and information technology were currently being used to support business processes, including their effectiveness, degree of

integration, and contribution to organizational performance. The external IS/IT environment analysis assessed broader developments such as technological trends, industry practices, and competitors' digital adoption, thereby identifying opportunities and risks that could shape the company's future strategic direction.

The output stage of the Ward and Peppard model consists of the formulation of IS business strategy, IT strategy, and IS/IT management strategy [30]. The IS business strategy was developed to ensure that information systems initiatives directly support business objectives and improve organizational effectiveness. The IT strategy focused on determining how technology infrastructure and digital tools could be utilized to strengthen business development, improve operational performance, and enhance competitive advantage. Meanwhile, the IS/IT management strategy addressed the governance and management aspects of technology, including reliability, security, continuity, and alignment with organizational needs. Taken together, these outputs provided an integrated strategic foundation for guiding the company's digital transformation in a structured and sustainable manner.

3. RESULTS AND DISCUSSION

The results indicate that the company has established an early digital foundation to support business growth, particularly through marketplace-based selling, cloud applications, and digital marketing practices. However, the analysis also shows that these capabilities remain only partially integrated and are still heavily dependent on external platforms. This condition creates a mixed strategic position: on one hand, the company benefits from agility, relatively low implementation costs, and rapid market access; on the other hand, it faces limitations in data integration, omnichannel coordination, internal control, and long-term scalability. Accordingly, the discussion in this section focuses on how internal and external analyses inform the formulation of a realistic IS/IT strategy that supports sustainable digital maturity.

3.1. CSF and PEST Analysis

The identification of Critical Success Factors (CSFs) provides an important foundation for understanding which organizational capabilities must be consistently maintained and strengthened in order to achieve strategic objectives. In the context of an FMCG skincare

enterprise operating in a highly dynamic digital market, success is not determined by digital marketing alone, but by the company's ability to connect innovation, operational responsiveness, customer engagement, and information system integration into a coherent business model. The CSFs identified in this study therefore function as strategic anchors for evaluating whether current and future IS/IT initiatives are aligned with the company's growth trajectory.

More specifically, the CSFs show that digital transformation in the company must be approached as a cross-functional effort rather than as an isolated technology initiative. Product innovation, interdepartmental data integration, digital operational efficiency, marketing analytics, employee competence, customer service, channel diversification, and data security are all interdependent areas. Weakness in one of these areas may reduce the effectiveness of the others. For example, strong marketing performance cannot be sustained if order management is slow, if inventory information is inconsistent, or if customer complaints are not handled properly. In this regard, the CSFs serve not only as performance priorities but also as a basis for setting IS/IT development priorities.

Table 1. Critical Success Factors

Critical Success Factor (CSF)	Success Indicators
Sustainable probiotic product innovation	Number of new products generated from R&D annually; market acceptance of product innovation
Integration of information systems across divisions	Level of data discrepancies between departments; synchronization time of operational reporting
Digital operational efficiency (ERP and e-commerce systems)	Order processing speed in Salesbaas and Ginee; percentage of orders completed on time
Optimization of data-driven digital marketing strategies	Increase in engagement rate; conversion rate from digital marketing campaigns
Strengthening human resource competencies in IT and digital marketing	Number of digital training programs attended; level of employee adoption of new systems

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Critical Success Factor (CSF)	Success Indicators
Customer relationship management and after-sales service	Customer satisfaction score (CSAT); customer retention rate
Distribution channel diversification and single-platform risk mitigation	Percentage of sales generated from non-TikTok Shop channels; sales stability across platforms
Data security management and compliance with digital regulations	Compliance with data privacy and security policies; number of data security incidents per year

Based on Table 1, the identified CSFs confirm that the company's success depends on the extent to which business strategy and information systems strategy reinforce one another. In line with the Ward and Peppard perspective, CSFs help organizations determine the critical areas in which performance must be continuously monitored in order to maintain strategic alignment. In the present case, this alignment is reflected in the company's use of Salesbaas for ERP-based order and inventory management, Ginee for marketplace operations, DingTalk for attendance and reimbursement administration, and WeChat for communication and coordination. These applications already support key business processes, but the CSFs reveal that their value will depend on stronger integration, broader data use, and better governance.

To complement the internal focus provided by the CSFs, a PEST analysis was conducted to assess the external environment surrounding the company. This analysis is particularly relevant because the company operates in a sector shaped by regulatory oversight, shifting consumer preferences, rapid platform evolution, and globalized supply dependencies. Although its business model is primarily driven by e-commerce, the company is also expanding into retail and media-based channels, making its strategic direction increasingly sensitive to changes in the political, economic, social, and technological environment in Indonesia.

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Table 2. PEST Analysis of FMCG Skincare Enterprises

Dimension	Description
Political	The Indonesian government continues to strengthen regulations related to cosmetics and health products, including BPOM and Halal certification requirements, which support the company's brand image as safe and trustworthy. Regulations concerning digital consumer protection and e-commerce transactions also require stronger customer data security and more reliable payment systems.
Economic	Indonesia's relatively stable economic growth supports consumer purchasing power, especially among middle-class consumers who represent the company's main target segment. However, exchange rate fluctuations and rising import costs for raw materials from South Korea may increase production costs, making supply chain efficiency increasingly important. The continued expansion of online shopping also supports the company's digital business model.
Social	Rising public awareness of personal care, oral health, and aesthetics has increased demand for innovative products such as probiotic mouthwash and teeth-whitening solutions. Urban lifestyles and self-care culture have made consumers more attentive to hygiene and appearance, while influencers and Key Opinion Leaders (KOLs) continue to shape purchasing decisions. As a result, storytelling-based and content-driven marketing remain strategically important.
Technological	Rapid development in e-commerce platforms and digital marketing technologies enables the company to extend market reach efficiently. The use of Salesbaas, Ginee, DingTalk, and WeChat improves operational coordination, while developments in artificial intelligence and data analytics create opportunities for stronger customer segmentation, predictive marketing, and campaign optimization.

Based on Table 2, the external environment presents both opportunities and constraints for the company's digital development. Politically, regulatory compliance is not only a legal requirement but also a source of market legitimacy, especially in categories related to personal care and health-sensitive products. Economically, the market remains

attractive, yet cost exposure caused by imported raw materials underscores the importance of inventory visibility, procurement planning, and supplier management. Socially, demand conditions are favorable, but consumer attention is increasingly shaped by digital narratives, trust signals, and social proof. Technologically, the environment is highly supportive of further digitalization, but firms that rely too heavily on third-party platforms without developing owned digital assets may face strategic vulnerability. Taken together, the PEST analysis suggests that the company's future IS/IT strategy must balance compliance, efficiency, adaptability, and digital ownership in order to sustain long-term competitiveness.

3.2. Porter's Five Forces Analysis

The competitive structure of the industry was further examined using **Porter's Five Forces** framework. This analysis helps explain the degree of pressure the company faces from rivals, new entrants, substitute products, customers, and suppliers. In the FMCG skincare and oral care market, these forces are especially relevant because competition is intensified by digital platforms, rapid product imitation, and the growing bargaining power of consumers who can easily compare price, claims, and reviews across multiple channels.

Table 3. Porter's Five Forces Analysis of FMCG Skincare Enterprises

Competitive Force	Analysis
Rivalry Among Existing Competitors	The personal care industry in Indonesia is highly competitive, with established players such as Pepsodent and Sensodyne dominating the oral care segment. The company occupies a niche through probiotic-based products with natural formulations, mild sensation, reduced tartar formation, and whitening benefits. Its digital marketing capability and KOL collaborations are central to building awareness without directly competing on scale with multinational brands.
Threat of New Entrants	Entry barriers are relatively moderate because digital platforms lower the cost of reaching consumers. However, regulatory requirements such as BPOM and Halal certification, together with investment in probiotic research and formulation, create meaningful barriers that protect the company to some extent.

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Competitive Force	Analysis
	Stronger brand positioning and intellectual property development can further reduce the threat of new entrants.
Threat of Substitutes	Substitute products include conventional mouthwash, herbal toothpaste, and other whitening or cosmetic care products. To address this threat, the company must strengthen its probiotic-based unique selling proposition and clearly communicate functional benefits such as gum health support and alcohol-free freshness.
Bargaining Power of Buyers	Buyers have strong bargaining power because marketplace environments make product comparison easy and increase price transparency. To reduce this pressure, the company must maintain quality, improve service responsiveness, strengthen loyalty, and develop stronger perceived value through packaging, storytelling, and customer experience.
Bargaining Power of Suppliers	Supplier power remains relatively high because key probiotic raw materials are imported from South Korea. Supplier diversification, long-term partnership arrangements, and stronger inventory planning through ERP support are necessary to reduce supply dependency and logistics risk.

As shown in Table 3, rivalry in the industry is intense, but the company's niche positioning provides a meaningful path to differentiation. The company is not competing primarily through price or scale, but through a distinctive value proposition based on probiotic formulation, product functionality, and digitally amplified brand storytelling. This positioning is strategically useful because it allows the company to avoid direct confrontation with dominant mass-market brands while still capturing a differentiated consumer segment. However, such differentiation must be continuously reinforced through innovation, evidence-based claims, and consistent brand communication.

The analysis also shows that the bargaining power of buyers and the threat of substitutes are especially strong in marketplace-driven environments. Consumers can quickly compare multiple brands, evaluate ratings, and switch to alternatives with minimal effort.

This means the company cannot rely solely on product uniqueness; it must also build customer loyalty, improve post-purchase experience, and strengthen trust through responsive service and clear communication. At the same time, high supplier dependence for imported materials increases vulnerability on the upstream side, which means digital systems for procurement, forecasting, and inventory control become strategically important rather than merely operational tools. Overall, the five forces analysis confirms that a well-aligned IS/IT strategy is necessary not only for internal efficiency but also for defending market position in a highly contested digital environment.

3.3. Application Portfolio Mapping

The internal IS/IT environment analysis shows that the company currently relies almost entirely on externally provided cloud-based applications rather than internally developed systems. This approach offers important advantages for a growing company, particularly in terms of lower upfront investment, faster deployment, and reduced technical maintenance burden. For a resource-constrained FMCG enterprise, the use of ready-to-use platforms is a practical and cost-efficient strategy during the early stages of digital development. However, this architecture also creates structural limitations, particularly in relation to data integration, interoperability, information security governance, and control over the long-term direction of the digital ecosystem. To better understand the strategic role of each application, the existing systems were mapped using the McFarlan Strategic Grid. This model helps classify applications according to their present and future contribution to the business. Through this mapping, it becomes possible to distinguish systems that are critical to current operations from those that hold future innovation potential, as well as systems that primarily provide supporting functions.

Table 4. Internal IS/IT Environment Analysis of FMCG Skincare Enterprises Based on the McFarlan Strategic Grid

Strategic	**High Potential**
Ginee (multi-channel e-commerce application)	DingTalk (administrative and human resource management platform)
Key Operational	**Support**
Salesbaas (inventory and order management ERP system)	WeChat (internal communication and coordination tool)

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Based on Table 4, Ginee is classified as a Strategic application because it plays a central role in integrating the company's marketplace activities across platforms such as Shopee, TikTok Shop, Tokopedia, and Lazada. Through a single dashboard, the company can coordinate listings, inventory, order flows, and sales reports more efficiently than would be possible through separate channel management. This capability is highly significant because digital commerce is currently one of the company's main engines of growth. At the same time, the analysis shows that Ginee has not yet been connected to retail channels such as Alfamart, meaning that online and offline data are still managed separately. This indicates that the company is operating in a multichannel configuration rather than a fully integrated omnichannel model.

In the Key Operational category, Salesbaas functions as the core ERP application supporting warehouse inventory control, customer order management, and sales reporting in real time. Its role is essential because production continuity, order fulfillment, and stock visibility depend heavily on the reliability of this system. Salesbaas also has the technical potential to connect with retail systems via API, but this has not yet been implemented in the company's environment. As a result, synchronization between warehouse operations and retail channels still requires manual updating, which increases the risk of delays, duplication, and inconsistent data. This finding highlights an important maturity gap: the company already uses digital tools, but it has not yet achieved end-to-end information integration.

DingTalk, categorized as High Potential, currently supports attendance recording, reimbursement submission, and internal administrative communication. Although its present role is more limited than that of Ginee or Salesbaas, it has strong potential to evolve into a more comprehensive HR and governance platform. If connected with finance, performance management, and employee development functions, DingTalk could help formalize internal control, increase transparency, and support a more scalable organizational structure. In contrast, WeChat is classified as a Support application because its main contribution lies in facilitating cross-departmental communication and coordination, including communication with overseas partners, particularly those in South Korea. Its function is useful and operationally relevant, but it does not in itself create strategic differentiation.

A useful benchmark for interpreting these findings is the digital model implemented by PT Unilever Indonesia Tbk, a multinational company with a major presence in the beauty and personal care industry through brands such as Sunsilk, Dove, Pond's, Vaseline, and TRESemmé. Although the scale of Unilever is far greater than that of the case company, its digital practices provide a valuable strategic reference. According to Agrawal and Chaudhari (2021), Unilever combines Artificial Intelligence (AI) with SAP S/4HANA ERP in its UniSupply system to strengthen supply chain efficiency and real-time visibility across production, distribution, and quality control activities. Unilever also operates a People Data Center (PDC) that supports consumer data analysis and market understanding. This comparison does not suggest that the company should replicate a multinational architecture directly; rather, it highlights the strategic direction toward stronger integration, better analytics, and greater ownership of digital intelligence. The key implication is that the company's current portfolio is functional but still fragmented, and therefore must gradually evolve toward a more connected and insight-driven digital ecosystem.

3.4. Strategic Roadmap

The strategic roadmap was developed to translate the results of the preceding analyses into a realistic future application portfolio. The roadmap emphasizes systems that can strengthen operational control, improve data integration, and create proprietary digital assets without imposing an excessive financial burden on the company. In other words, the roadmap does not assume large-scale enterprise transformation in a single phase; instead, it prioritizes staged development based on strategic value, organizational readiness, and affordability.

Table 5. Future Application Portfolio of FMCG Skincare Enterprises Based on the McFarlan Strategic Grid

Strategic	**High Potential**
Website Metoo (Digital Hub)	AI Customer Insight Dashboard
Key Operational	**Support**
Salesbaas ERP Cloud + Finance Module Integration; E-Procurement Platform	HRIS System

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As shown in Table 5, the Website Metoo (Digital Hub) is positioned as the primary Strategic application because it is intended to become the center of the company's future digital ecosystem. Rather than functioning merely as a static corporate website, it is expected to integrate product information, marketing campaigns, customer relationship management, and direct links to marketplace channels. This shift is significant because it begins to move the company away from full dependence on third-party platforms and toward ownership of a digital touchpoint that can accumulate first-party customer data over time. A low-code development approach also makes this initiative financially feasible while preserving long-term strategic control.

The AI Customer Insight Dashboard is classified as High Potential because its value depends on the future accumulation and quality of customer data. Although it is not an immediate operational necessity, it has strong potential to strengthen segmentation, campaign optimization, retention strategy, and demand prediction. The recommended approach is therefore incremental: the company should first improve data consistency and digital hub integration, then introduce AI-driven analytics when sufficient data maturity has been achieved. This sequencing reduces the risk of premature investment in advanced analytics without a reliable underlying data foundation.

Within the Key Operational category, Salesbaas ERP Cloud + Finance Module Integration remains a core priority because the company's daily operations already depend on it. The addition of a simple internal finance module would allow operational and financial reporting to be managed more independently and with better control. The inclusion of an E-Procurement Platform in the same category is also strategically justified because supplier coordination and raw material availability directly affect production continuity, especially given the company's reliance on imported inputs. Meanwhile, the HRIS System is placed in the Support category because it improves administrative efficiency, employee data management, and organizational discipline, even though it does not directly determine market performance. Overall, this portfolio reflects a pragmatic digital transformation path that favors systems with immediate business relevance while still reserving space for future analytical advancement.

3.4.1. Future IS/IT Strategy

The future IS/IT strategy is designed to establish a stronger digital foundation, increase operational efficiency, and position the company more effectively in a data-driven market. The first strategic priority is to develop the website as a digital core, so that marketing activities, customer interaction, product information, and marketplace traffic can be orchestrated through an owned digital asset. This is important not only for branding but also for reducing dependence on external platforms and enabling the collection of more structured customer data.

The second priority is the implementation of a hybrid integration model, combining internally controlled systems with selected external cloud applications. Such an approach offers flexibility and cost efficiency while gradually improving data consistency and managerial control. The third priority concerns supply chain efficiency, particularly through the use of e-procurement and supplier sourcing applications that make raw material procurement more transparent, competitive, and traceable. The fourth priority is the strengthening of analytics and data-driven decision-making through the future deployment of an AI Customer Insight Dashboard, which can transform transactional data into strategic insight. The fifth priority is the improvement of security and data governance, ensuring that digital systems and customer data practices are aligned with applicable personal data protection regulations. Together, these priorities indicate that the company's digital strategy is moving from basic digital adoption toward structured digital governance and scalable integration.

3.4.2. Future Value Chain

The future value chain is designed to support a more digitally integrated business model across both support and primary activities. The objective is not simply to automate existing processes, but to redesign the flow of value creation so that information moves more quickly, decisions become more data-based, and coordination across functions becomes more consistent. In this way, digital transformation is expected to improve not only efficiency but also innovation capability, customer experience, and strategic agility.

1) Support Activities

Within the support activities, firm infrastructure is expected to be strengthened through digital governance practices that improve reporting quality, cross-functional

coordination, and managerial control. Better integration of reporting systems will allow decision-makers to access more timely and consistent information, thereby supporting more accurate planning and faster responses to operational issues. In parallel, stronger information security governance will become increasingly important as the company expands the use of integrated digital platforms.

Human resource management is projected to improve through the implementation of a cloud-based Human Resource Information System (HRIS). This system can support employee data management, attendance tracking, performance monitoring, and administrative transparency, while also encouraging a more digitally oriented work culture. Technology development will continue to focus on probiotic-based product innovation, but it will also incorporate digital tools such as AI analytics and low-code platforms to shorten development cycles and improve responsiveness to market trends. Finally, procurement will be enhanced through the adoption of an e-procurement platform linked to supplier sourcing tools. This integration will strengthen vendor evaluation, improve pricing transparency, reduce procurement delays, and help maintain quality consistency in raw materials.

2) Primary Activities

For the primary activities, inbound logistics will benefit from digitally managed sourcing and procurement processes that support vendor comparison, purchasing efficiency, and supply continuity. This is especially important given the company's dependence on imported probiotic materials. Operations, including production and order processing, will be reinforced through an integrated ERP cloud environment connected to financial modules, allowing real-time monitoring of inventory, order status, and operational cost. This integration is expected to reduce redundancy, improve control, and support more reliable execution.

In outbound logistics, integration between ERP systems, the digital hub, and marketplace channels will improve stock synchronization, order tracking, and sales reporting across multiple channels. Marketing and sales will increasingly adopt a data-driven model supported by AI-based customer analytics, enabling more precise segmentation, better campaign targeting, and stronger digital engagement. The company website will also function as the central hub for product information, social commerce redirection, and

customer acquisition. In the service activity, customer interactions will be strengthened through digital communication tools and customer satisfaction analytics, enabling more responsive and personalized support. Taken together, the integration of these support and primary activities is expected to increase value creation and improve margins by reducing process inefficiencies, enhancing service quality, and strengthening the company's competitive position in the market.

3.4.3. Future Critical Success Factors

As the company moves from foundational digital adoption toward a more integrated and intelligent business model, the nature of its critical success factors will also evolve. Future CSFs are no longer limited to implementing basic systems; they are directed toward ensuring that technology generates measurable strategic value. This means the company must focus more strongly on digital maturity, organizational learning, predictive capability, and governance discipline. In this next phase, success will depend not only on the availability of technology, but on the company's ability to institutionalize its use across innovation, operations, marketing, and customer management.

Table 6. Future Critical Success Factors (CSFs) of FMCG Skincare Enterprises

Future Critical Success Factor	Future Success Indicators
AI-based probiotic product innovation	Percentage of new products resulting from predictive data analysis; faster product development time (time-to-market)
Company digital ecosystem integration across divisions and partners	Cross-system data accuracy above 98%; number of systems automatically connected to the company Digital Hub
Global supply chain efficiency through smart automation	Reduction in order processing time above 40%; reduction in annual logistics costs
Optimizing data-driven marketing based on AI insights	Increase in customer lifetime value (CLV); increase in digital campaign conversion rates
Digital competence and employee innovation culture	Percentage of digitally certified employees; annual increase in technology adoption maturity score

Future Critical Success Factor	Future Success Indicators
Predictive and integrated customer service	Complaint response time reduced to less than one hour; customer satisfaction score (CSAT) above 90%
International digital expansion and collaboration	Digital export revenue growth above 20% per year; number of active global partners in the digital ecosystem
Risk-based data governance and cybersecurity	Full compliance with data protection regulations; zero annual data breach incidents

Based on Table 6, the future CSFs emphasize a transition from operational digitization toward strategic digital capability. AI-assisted innovation, integrated data architecture, automated supply chains, advanced customer analytics, workforce readiness, and cybersecurity are no longer optional enhancements; they become the conditions that determine whether the company can scale sustainably. These indicators also make the roadmap more measurable because they translate broad strategic intentions into operational benchmarks that can be monitored over time. Importantly, they show that future competitiveness will depend as much on governance, talent, and disciplined execution as on the acquisition of new applications.

Overall, the combined use of CSF analysis, PEST analysis, Porter's Five Forces, and application portfolio mapping provides a comprehensive view of the company's strategic position and digital capability needs. The findings show that the company has already developed a functional digital base, particularly in marketplace management and operational support, but still faces significant gaps in integration, channel independence, procurement control, and data governance. Consequently, a well-aligned IS/IT strategy is essential for enabling the company to progress from a digitally active startup into a scalable, insight-driven, and more fully integrated omnichannel FMCG enterprise.

3.5. Discussion

The findings of this study demonstrate that the company's digital condition reflects both early progress and structural limitations in its IS/IT development. The empirical evidence gathered through interviews, observations, and document analysis shows that the

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company has already adopted several digital applications to support marketplace operations, inventory management, administration, and internal communication. However, the internal IS/IT environment analysis presented in Table 4 confirms that these applications still function in a relatively fragmented manner, with limited integration across channels and business functions. In this context, the company's reliance on external cloud-based platforms such as Ginee and Salesbaas can be interpreted in two ways: as a strength, because it enables cost efficiency and rapid implementation, and as a weakness, because it reduces control over digital architecture, creates dependency on third-party systems, and constrains end-to-end data integration. This dual condition is critical because it reveals that digital adoption alone is not sufficient to produce strategic transformation unless it is supported by a more coherent planning framework. The roadmap therefore becomes important not merely as a list of proposed systems, but as a phased and measurable implementation mechanism that supports governance, prioritization, and resource allocation in digital transformation initiatives [29].

The discussion of Critical Success Factors (CSFs) further reinforces the need for a dynamic and strategically aligned IS/IT planning process. As shown in Table 1, the current CSFs are still closely related to the company's present operational priorities, including product innovation, digital marketing performance, cross-divisional information integration, customer service, and workforce capability. These factors accurately reflect the company's current stage of development, where the main challenge is to stabilize and coordinate digital business activities across existing channels. However, the shift toward the future CSFs presented in Table 6 indicates a more advanced strategic orientation, one that places greater emphasis on intelligent analytics, ecosystem integration, predictive customer service, supply chain automation, cybersecurity, and organizational digital maturity. This transition suggests that the company's IS/IT strategy cannot remain static; it must evolve alongside business growth, market complexity, and technological capability. In this regard, the present study contributes by showing how the Ward and Peppard strategic planning framework can be integrated with the McFarlan Strategic Grid to connect business objectives, application priorities, and digital maturity progression in a more systematic way [30]. The implication is that organizations should periodically reevaluate their CSFs in response to shifting digital priorities so that IT strategy remains adaptive, relevant, and transformation-oriented rather than merely operational.

The application portfolio analysis also has important strategic implications for how the company should approach digital transformation. The comparison between Table 4 and Table 5 shows a clear movement from a predominantly multi-channel operational model toward a more integrated digital ecosystem with omnichannel potential. In the current portfolio, the company's systems are primarily used to support separate functional needs, such as marketplace management, ERP-based order control, communication, and administration. In the future portfolio, however, the focus shifts toward systems that not only support operations but also generate strategic value, including the Digital Hub, AI Customer Insight Dashboard, integrated ERP-finance capability, and procurement digitization. This shift is significant because it reflects a movement away from isolated tool usage toward intentional digital investment. The proposed Digital Prioritization Roadmap is therefore a suitable implementation approach because it organizes system development according to business urgency, expected value, and financial feasibility. Such an approach is particularly appropriate for resource-constrained companies, as it allows transformation to occur incrementally without overextending organizational capacity or creating unnecessary implementation risk. Unlike architecture-oriented studies such as Jordan et al. [31], which focus more strongly on technical design and system structure, the present study adopts a strategy transformation-oriented perspective, emphasizing business alignment, phased execution, and the role of IS/IT as a driver of organizational development rather than as a purely technical infrastructure.

From a practical and managerial perspective, the findings suggest that digital transformation in small and emerging FMCG companies should be approached as an evolutionary process rather than a disruptive one. For companies operating with limited financial, technical, and human resources, a gradual transformation path is often more realistic and sustainable than a large-scale overhaul. The proposed roadmap reflects this logic by prioritizing initiatives that offer direct business value, manageable implementation scope, and the possibility of future scalability. Through this approach, the company can reduce implementation risk, optimize resource allocation, and ensure that each digital initiative contributes meaningfully to operational performance and strategic growth. This is especially relevant in a competitive FMCG environment where firms must balance speed, efficiency, customer responsiveness, and regulatory compliance at the same time. The transformation model proposed in this study is therefore not revolutionary in nature, but deliberately cumulative and capability-building,

allowing the company to strengthen its digital foundation step by step in accordance with its organizational readiness [32].

4. CONCLUSION

The findings of this study demonstrate that FMCG Skincare Enterprises has strong growth potential, supported by its innovation in probiotic-based skincare products and its effective use of digital marketing to build market presence and customer engagement in an increasingly competitive FMCG landscape. At the same time, the study identifies critical constraints that may hinder sustainable expansion, particularly limited production capacity and a high dependence on a single dominant digital sales channel, both of which expose the company to operational and strategic vulnerabilities. In response to these challenges, the proposed IS/IT strategic plan offers a structured and practical pathway for strengthening the company's digital transformation through improved system integration, capability development, and carefully prioritized technology investment based on a hybrid and phased approach. The results suggest that aligning IS/IT initiatives with organizational needs and business priorities can enhance data integration, improve internal coordination, streamline operational processes, and gradually reduce dependency on external platforms, thereby creating a stronger foundation for long-term competitiveness. This study therefore underscores the strategic importance of IS/IT planning not merely as a technical exercise, but as a key mechanism for enabling emerging FMCG firms to transition from fragmented digital adoption toward a more integrated, scalable, and resilient business model. Nevertheless, because this research is based on a single-company case study, its findings remain context-specific and should be interpreted within the organizational setting in which they were generated. Future research is encouraged to examine multiple FMCG enterprises across different scales and market contexts in order to validate and extend the applicability of the proposed framework to broader digital transformation efforts within the sector.

REFERENCES

[1] G. Vial, "Understanding Digital Transformation: A Review and A Research Agenda," *J. Strateg. Inf. Syst. Rev.*, pp. 1–68, 2019.

[2] J. Ferreira, P. Veiga, N. Kailer, S. Kraus, S. Durst, and A. Weinmann, "Digital transformation in business and management research : An overview of the current status quo," *Int. J. Inf. Manage.*, vol. 63, pp. 1–18, 2022, doi: 10.1016/j.ijinfomgt.2021.102466.

[3] Y. K. Dwivedi, E. Ismagilova, D. L. Hughes, J. Carlson, R. Filieri, J. Jacobson, V. Jain, H. Karjaluoto, H. Kefi, A. S. Krishen, V. Kumar, M. M. Rahman, R. Raman, P. A. Rauschnabel, J. Rowley, J. Salo, G. A. Tran, and Y. Wang, "Setting the future of digital and social media marketing research : Perspectives and research propositions," *Int. J. Inf. Manage.*, vol. 59, pp. 1–37, 2021, doi: 10.1016/j.ijinfomgt.2020.102168.

[4] N. Chinnapakjarusiri, P. Khotabut, P. Nakpleung, T. Kraiwanit, and P. Moolngearn, "Digital Marketing Skills in the Digital Economy : A Review Article," *Adv. Knowl. Exec.*, vol. 3, no. 44, pp. 1–9, 2024.

[5] M. M. Koska, C. Aktürk, and C. C. Cerasi, "Digital Transformation and Organizational Change : A Literature Based Framework," vol. 1, no. 22, pp. 95–111, 2025, doi: 10.52320/dav.v22i1.367.

[6] R. C. Härting, C. Reichstein, and M. Schad, "Potentials of Digital Business Models – Empirical investigation of data driven impacts in industry," *Procedia Comput. Sci.*, vol. 126, pp. 1495–1506, 2018, doi: 10.1016/j.procs.2018.08.121.

[7] H. Jie, L. Mow, and Y. Lou, "Digital maturity , dynamic capabilities and innovation performance in high-tech SMEs," *Int. Rev. Econ. Financ.*, vol. 99, p. 103971, 2025, doi: 10.1016/j.iref.2025.103971.

[8] G. Jm, J. Pajares, F. Acebes, and F. Villafáñez, "Aplicabilidad de los Modelos de Madurez de Business Intelligence a PYMES," *Dir. y Organ.*, vol. 71, pp. 31–45, 2019, doi: 10.37610/dyo.v0i71.577.

[9] H. Yu, M. Fletcher, and T. Buck, "Managing digital transformation during re-internationalization : Trajectories and implications for performance," *J. Int. Manag.*, vol. 28, no. 4, pp. 1–22, 2022, doi: 10.1016/j.intman.2022.100947.

[10] P. R. Ahuja, P. N. Salvi, and P. P. Pallavi, "Evaluating The Integration of Ai In Digital Marketing Automation," *African J. Biomed. Res.*, vol. 27, no. 4, pp. 10374–10379, 2024, doi: 10.53555/AJBR.v27i4S.5665.

[11] S. A. Arofatun, M. C. Mursid, A. A. Isfandiar, M. A. Kurniawan, M. Masrur, A. Majid, and Aenurofik, "Digital Human Capital Strategy: Improving Company Performance," *J. Inf. Syst. Applied, Manag. Account. Res.*, vol. 9, no. 2, pp. 769–777, 2025, doi: 10.52362/jisamar.v9i2.1862.

[12] A. F. Rizana, I. I. Wiratmadja, and M. Akbar, "Exploring Capabilities for Digital Transformation in the Business Context : Insight from a Systematic Literature Review," *Sustainability*, vol. 17, pp. 1–29, 2025, doi: 10.3390/su17094222.

[13] D. Ellstr, J. Holtstr, E. Berg, and C. Josefsson, "Dynamic capabilities for digital transformation," *J. Strateg. Manag.*, vol. 15, no. 2, pp. 272–286, 2022, doi: 10.1108/JSMA-04-2021-0089.

[14] B. R. Prabowo, A. Mursyada, and N. F. Saifulloh, "Advancing Digital Transformation through Business Process Orientation Maturity Models : A Systematic Literature Review," *Int. J. Manag. Entrep. Soc. Sci. Humanit.*, vol. 9, no. 1, 2025.

[15] I. Yustiana, Hermanto, and F. Lestari, "Microservices in strategic public service delivery : a systematic review and future research agenda for smart governance," *Digit. Bus. Tren Bisnis Masa Depan*, vol. 16, no. 2, pp. 90–98, 2025, doi: 10.59651/dibus.

[16] P. Orth, "The Early Stage of Digital Technology Adoption : What Are the Key Activities for Identifying Digital Innovations?," no. 2019, pp. 1–10, 2022.

[17] L. Ladu, C. Koch, P. Asna, K. Blind, and P. Castka, "Technology in Society Technology adoption and digital maturity in the conformity assessment industry : Empirical evidence from an international study," *Technol. Soc.*, vol. 77, pp. 1–12, 2024, doi: 10.1016/j.techsoc.2024.102564.

[18] T. K. Franke, "Digital maturity as startup internationalization process enabler," *Crit. Perspect. Int. Bus.*, 2025, doi: 10.1108/cpoib-08-2024-0085.

[19] S. Addison, D. Nadarajah, and I. Yasin, "International Journal of Social Science and Human Research Digital Transformation and Business Model Innovation : Moderating Role of Digital Leadership," *Int. J. Soc. Sci. Hum. Res.*, vol. 07, no. 08, pp. 5892–5906, 2024, doi: 10.47191/ijsshr/v7-i08-09.

[20] C. Ogrean, "Integrating Sustainability and Digitalization in Business Model Innovation . A Bibliometric Study," *Stud. Bus. Econ.*, vol. 19, no. 19, pp. 307–331, 2024, doi: 10.2478/sbe-2024-0040.

[21] S. Q. Njanka, G. Sandula, and R. Colomo-palacios, "IT-Business Alignment : A Systematic Literature Review," *Procedia Comput. Sci.*, vol. 181, pp. 333–340, 2021, doi: 10.1016/j.procs.2021.01.154.

[22] A. M. Abubakar, H. Elrehail, M. A. Alatailat, and A. Elc, "Knowledge management, decision-making style and organizational performance," *J. Innov. Knowl.*, vol. 4, pp. 104–114, 2017, doi: 10.1016/j.jik.2017.07.003.

[23] K. Tworek, "Reliability of Information Systems In Organizations as A Factor Shaping," vol. 2, no. 2, pp. 259–274, 2020, doi: 10.15611/aoe.2020.2.11.

[24] Z. Li, Q. Lai, and J. He, "Borsa Istanbul Review Does digital technology enhance the global value chain position ?," *Borsa Istanbul Rev.*, vol. 24, no. 4, pp. 856–868, 2024, doi: 10.1016/j.bir.2024.04.016.

[25] M. Sihite, D. O. Suparwata, M. N. Arafah, and S. Uhai, "SWOT Analysis of the Strategy of Digital Transformation of SMEs," *Int. Journa Business, Law, Eval.*, vol. 6, no. 2, pp. 1546–1555, 2025.

[26] A. De Carolis, C. Sassanelli, F. Acerbi, M. Macchi, S. Terzi, and M. Taisch, "The Digital REadiness Assessment MaturitY (DREAMY) framework to guide manufacturing companies towards a digitalisation roadmap," *Int. J. Prod. Res.*, vol. 63, no. 15, pp. 5555–5581, 2025, doi: 10.1080/00207543.2025.2455476.

[27] B. Hagen, P. N. Ghauri, and V. Macovei, "The balancing act : Organizational agility in fast-growing international ventures," *Ind. Mark. Manag.*, vol. 123, pp. 119–132, 2024, doi: 10.1016/j.indmarman.2024.09.007.

[28] O. Al-jayyousi, H. Amin, H. A. Al-saudi, A. Aljassas, and E. Tok, "Mission-Oriented Innovation Policy for Sustainable Development : A Systematic Literature Review," *Sustainability*, vol. 15, pp. 1–21, 2023, doi: 10.3390/ su151713101.

[29] J. F. Andry, D. Y. Bernanda, K. Christianto, and A. Andriani, "Analysis of information systems strategic planning using ward and peppard framework case e-commerce company," *Int. J. Adv. Appl. Sci.*, vol. 12, no. 2, pp. 179–187, 2023, doi: 10.11591/ijaas.v12.i2.pp179-187.

[30] L. Liliana and M. Clara, "Identification of Business and Technology Strategies Based on The Ward Peppard-Cassidy Method," *J. Theor. Appl. Inf. Technol.*, vol. 101, no. 6, pp. 2365–2374, 2023.

[31] Jordan, J. F. Andry, F. Adikara, Y. M. Geasela, and F. S. Lee, "Implementation of Information System Architecture Using TOGAF and Ward Peppard Analysis for High School," *J. Comput. Sci.*, vol. 20, no. 6, pp. 690–699, 2024, doi: 10.3844/jcssp.2024.690.699.

[32] J. F. Andry, L. Liliana, and A. Chakir, "Enterprise Architecture Landscape using Zachman Framework and Ward Peppard Analysis for Electrical Equipment Export Import Company," *Trends Sci.*, vol. 18, no. 19, pp. 1–10, 2021, doi: 10.48048/tis.2021.23.