Digital Marketing Strategy (DMS) in Communication Advantage: A Systematic Literature Review (SLR) Approach in Asian Healthcare Industry

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KEYWORDS

Digital Marketing Strategy, Components of Digital Marketing Strategy ,Systematic Literature Review, Healthcare Marketing, Asian Healthcare Industry, Patient-Centric Marketing, Digital Health Communication and Marketing–IT Alignment.

ABSTRACT

Marketing–IT alignment has been widely accepted as a framework for integrating IT and marketing strategies for decades. The current systematic review evaluated and synthesised the academic literature on marketing strategies, adhering to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for scoping reviews. In recent years, the rise of the digital marketing strategy (DMS) concept has been driven by the widespread adoption of digital technologies. Information technology can be seen as an integral part of any company's overall strategy when approached in this way.

In the context of the Asian healthcare industry, the adoption of digital marketing strategies has become increasingly important due to the rapid digitisation of healthcare services and the growing emphasis on patient-centric care. Many healthcare organisations in Asia can benefit from the DMS concept, leveraging digital tools and platforms to enhance patient engagement, streamline service delivery, and improve health outcomes. Recent research has made significant progress in exploring individual DMS dimensions, such as patient data analytics, telemedicine marketing, and digital content strategies for health education.

With this information, we create an integrative framework tailored to the Asian healthcare industry that includes DMS antecedents, components, the development process, and final outcomes. Our study lays the groundwork for future DMS-related research in healthcare to be improved systematically. To help healthcare managers and policymakers better understand and apply this critical concept, our framework sets the stage for a deeper understanding and effective implementation of digital marketing strategies, ultimately contributing to better healthcare delivery and patient satisfaction across Asia.

1. Introduction

Here's the revised **Introduction** section incorporating the **Asian healthcare industry** context:

Introduction

As digital technologies proliferate, businesses operating in an increasingly digital environment face new challenges (El et al., 2010). To gain a competitive advantage, IT management must be integrated into the overall business strategy (Peppard and Ward, 2004). Business strategy addresses how a company should position itself in the competitive market (Chaffee, 1985; Porter, 1996). Consequently, businesses strive to align their IT strategies with their overarching objectives (Henderson and Venkatraman, 1993; Tarafdar and Qrunfleh, 2009). Traditionally, IT strategy was viewed as an operational tool derived from business strategy, aimed at supporting organisational goals (Feeny and Ives, 1990; Hidding, 2001). Since the early 1990s, the alignment of business and IT has been a focal area of research in information systems (IS), notably by Henderson and Venkatraman (1993) and Venkatraman (1994). In this context, information technology has proven instrumental in providing businesses with a competitive edge (Venkatraman, 1994; Bharadwaj et al., 2013).

The question of whether IT strategy should be subordinate to business strategy emerged in the early 2010s (Bharadwaj et al., 2013; Mithas and Lucas, 2010). This debate gave rise to the concept of digital business strategy (DMS), which advocates for the integration of IT and business strategies. DMS is defined as "a strategy developed and implemented using digital resources to generate differentiated value" in an organisational context. It positions IT as an integral component of a company's business model and operations (Wunderlich, 2018). To achieve strategic goals and create value, successful companies utilise digital technologies effectively (Pavlou and El, 2006; Templeton et al., 2019). However, incumbents must differentiate their digital strategies from digital pioneers such as Spotify, Airbnb, and Uber (Sebastian et al., 2017). Notably, Bosch represents a successful incumbent that has achieved significant results through DMS and digital transformation (Towers, 2021).

The application of DMS in the **Asian healthcare industry** is increasingly critical, given the region's rapid adoption of digital health technologies and emphasis on patient-centric care. Asian healthcare organisations are leveraging DMS to enhance patient engagement, improve healthcare delivery, and ensure accessibility. Digital tools such as telemedicine, health apps, patient data analytics, and digital content for health education have become central components of healthcare marketing strategies. These digital innovations allow healthcare providers to overcome geographical and economic barriers, particularly in underserved regions, while catering to the increasing demand for personalised healthcare services.

For managerial practice, DMS is particularly relevant, as it offers healthcare providers a pathway to remain competitive while delivering better patient outcomes. Even leading strategy consultancies are increasingly recognising its potential (Dawson and Scanlan, 2021; Ferguson and Anderson, 2021; Wald et al., 2021). Managers in the Asian healthcare sector must consider incorporating DMS principles into their strategies to address emerging healthcare challenges and capitalise on the opportunities presented by digital transformation. This literature review provides a structured guide to identifying the dimensions of DMS most relevant to healthcare, enabling managers to develop more targeted and effective strategies.

Despite its growing importance, comprehensive DMS research reviews are lacking. Existing reviews often focus on singular aspects of DMS or fail to incorporate recent developments. For instance, Kahre et al. (2017) classified findings based on internal and external organisational conditions, DMS content, and organisational outcomes. However, their review predates more recent contributions from Park and Mithas (2020), Chi et al. (2018), and Sia et al. (2016). Similarly, Weinrich (2017) concentrated solely on DMS's organisational design, while Nadeem et al. (2018) explored connections between DMS, digital transformation, and organisational capabilities. More recently, Ruel et al. (2020) emphasised the roles of leadership and organisational learning in DMS. Therefore, a comprehensive and up-to-date review is necessary to establish a holistic framework that encompasses the foundational dimensions of DMS.

The advent of the internet has fundamentally transformed the way we live and conduct business. Accessing information, communicating globally, and sharing content has never been easier (Lizbetinova, 2014). This interconnected environment has reshaped marketing, with digital marketing emerging as a key component of marketing communication. Its rise has coincided with a decline in traditional media consumption, such as television, radio, newspapers, and magazines. Stokes (2011) defines digital marketing as marketing conducted in a highly interconnected digital environment. It has become integral to the marketing strategies of nearly every business, evolving through advancements in science, technology, and communication platforms.

In the healthcare industry, particularly in Asia, digital marketing has proven transformative. Ryan and Jones (2009) examined strategies for connecting businesses with the digital generation, focusing on the origins and development of digital marketing and the effectiveness of its tools. Prikrylova and Jahodova (2010) characterised digital marketing as a modern communication tool offering fast communication with targeted, individualised content. Similarly, Scott (2010) highlighted the utility of digital marketing in improving customer relationship management and the effectiveness of SEO optimisation. In healthcare, such digital marketing tools are now being adapted to reach diverse patient populations, promote preventive care initiatives, and enhance the visibility of healthcare providers in the competitive digital space.

Through this systematic review, we aim to establish a foundational and holistic framework for understanding DMS's underlying dimensions, with a focus on the Asian healthcare industry. By addressing the following research questions, this study aspires to make significant contributions to DMS literature:1. How is the academic literature on DMS currently organised? 2. What are the critical dimensions affecting DMS in the Asian healthcare industry? This paper proceeds as follows: First, we detail the methodology used to conduct the exhaustive literature review. Second, we summarise the findings, highlighting the identified dimensions. Finally, we discuss the implications of these findings, their relevance to future research, and provide recommendations for advancing the field of DMS within healthcare.

2. Method

2.1 PRISMA

The review was guided by the PRISMA Statement (Preferred Reporting Items for Systematic reviews and Meta-Analyses). PRISMA is often utilized within the environmental management field. According to Sierra-Correa and Cantera Kintz (2015), it offers three unique advantages which are (i) defining clear research questions that permits systematic research, (ii) it identifies inclusion and exclusion criteria and (iii) it attempts to examine large database of scientific literature in a defined time. The PRISMA Statement allows for rigorous search of terms related to marketing strategies. The methodology can be used for marketing strategies in digital application.

2.2 Research Scope and Focus

This study aims to assess the efficacy of marketing stratergies surviving processes and alternative detection techniques suggested by researchers. The main emphasis of marketing strategies which surviving in changing climate change, social network analysis, and deep learning of literature review.

2.3 Research Framework

An SLR was performed to determine the state of the art in the marketing strategies approach. The SLR is led by the research question: What methods and approaches are presently utilized to identify marketing strategies in digital application.?

The SLR was carried out utilizing the Digital Library in combination with English-language resources such as Springer, IEEE Xplore, Science Direct, Emerald Insight, and ACM. Most of the articles in the sample were created in the year 2010 until 2021. The digital library was searched using the following keywords: marketing strategy, digital marketing information technology marketing, social networking online, and social media sales, electronic commerce, data mining and information system. After excluding documents that were not included in the scope of the study, the final sample size was 9 documents.

2.4 Identification

The first phase identified keywords used for the search process. Relying on previous studies and thesaurus, keywords similar and related to marketing strategy, digital marketing, and information technology marketing were used (Table 1).

Table 1: Keywords Searching

Databases	Keywords used
Scopus	TITLE-ABS-KEY ((marketing strategy" OR "digital marketing" OR "information technology marketing" OR "social networking online" OR "social media sales" OR "electronic commerce" OR "data mining" OR "information system"))
Web of Science	TS = ((marketing strategy" OR "digital marketing" OR "information technology marketing" OR "social networking online" OR "social media sales" OR "electronic commerce" OR "data mining" OR "information system"))

2.5 Screening

Numerous criteria are established for eligibility and exclusion. To begin, only empirical article journals are considered, which means that review articles, book series, books, book chapters,

and conference proceedings are all excluded. Second, to avoid ambiguity and difficulty in translation, the search efforts focused exclusively on English-language articles. Thirdly, a timeline for the year 2010 until 2021 is chosen because it allows sufficient time to observe the evolution of research and related publications.

Due to the review process's emphasis on adapting practices marketing strategies, only articles indexed in Elsevier BV's Emerging Sources Citation Index, Clarivate Analytics Social Science Citation Index, and Journal Citation Reports/Social Sciences Edition indexes were considered. In comparison, articles from a hard science index (Science Citation Indexed Expanded) were excluded. Table 1 and Figure 1 detail the screening criteria and frameworks.

Table 2: The Inclusion and Exclusion Criteria

Criterion	Eligibility	Exclusion
Literature Type	Journal (research articles)	Journals (systematic review), book series, book, chapter in the book, conference proceeding
Language	English	Non-English
TimeLine	2010-2021	<2021
Indexes	Elsevier BV, Clarivate Analytics Emerging Sources Citation Index, Social Science Citation Index, Journal Citation Reports/Social Sciences Edition	Science Citation Indexed Expanded
Countries and Territories	Europe countries and ASEAN	Non-Europe and ASEAN countries

2.6 Outputs

The publication status of all outputs in peer-reviewed journals was the only criterion for evaluation. The sample frame does not contain patent applications, lecture notes/slides, software items, or information websites. The sample's temporal distribution in terms of when outputs were published is depicted in Table 3.

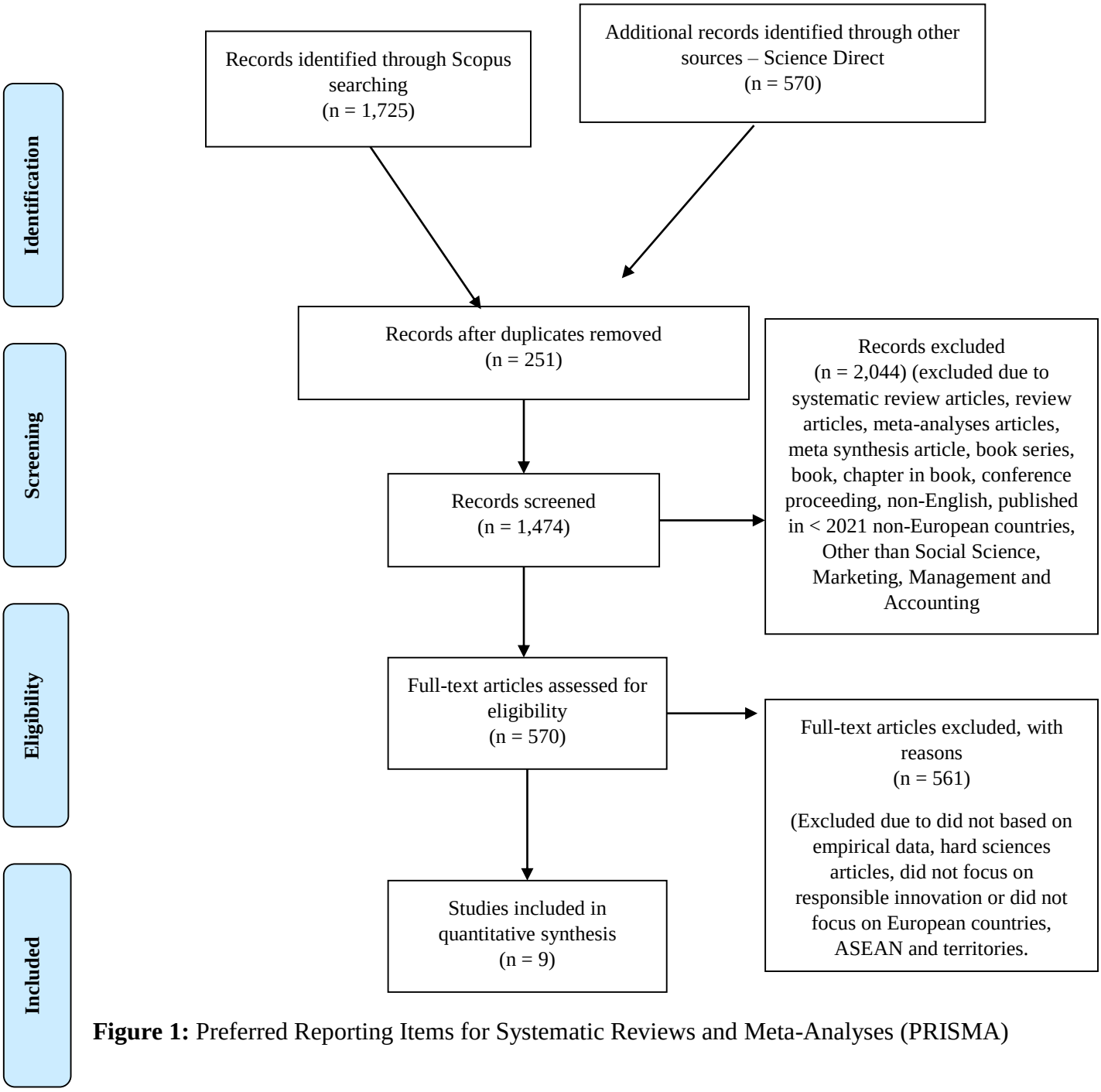

Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)

3. Results

DMS (data-driven business strategy) is a term that has only been in use since year 2010 until year 2021. It describes the marriage of information technology and business strategy. This represents an important milestone, indicating that DMS has gained momentum recently. In the end, 9 papers were considered for consideration. We created a concept matrix to present our findings in a more visually appealing manner (Table 1). We will go into greater detail about each of the four dimensions, as well as each of their subcategories, in the following sections.

Table 1: Operationalization of the term "marketing strategies" in the included studies.

Authors	Theme			
	DMS Indicator	Components of DMS	DMS Levels	DMS Performance
Bennis (2013)		✓		
Bharadwaj et al. (2013)	✓	✓		✓
Bygstad et al. (2020)	✓	✓	✓	
Chi et al. (2018)		✓		✓
De Baat Doelmann et al. (2021)			✓	
Drnevich and Croson (2013)		✓		✓
Granados and Gupta (2013)	✓	✓		
Grover and Kohli (2013)	✓	✓		
Holotiuk and Beimborn (2017)		✓		✓

3.1 Indicator of Digital Marketing Strategies

According to a diverse group of authors, emerging digital technologies have the potential to completely upend entire business models, strategies, and even entire industries in the near future (Bharadwaj et al., 2013; Bygstad et al., 2020). For many products, the physical and digital assets are nearly inseparable; for example, the physical and digital assets of a computer are nearly inseparable (Bharadwaj et al., 2013). Additionally, the widespread use of digital technologies has resulted in increased expectations for products and services as well (Granados and Gupta, 2013). If successfully implemented, disruptive technology trends can be extremely dangerous, but they can also present businesses with significant opportunities if they are successfully adapted. In order to remain competitive in the digital world, it is necessary to develop a DMS that incorporates the advantages of these technologies into a broader business context (Grover and Kohli, 2013).

Whenever a company undergoes a significant transformation, it may become necessary to implement a DMS (Bharadwaj et al., 2013). Business models that were once successful are becoming obsolete in a digital world, which has a significant impact on the design of underlying business strategies and the implementation of those strategies (Bharadwaj et al., 2013). Business leaders are increasingly viewing information technology as a strategic asset, elevating its importance and increasing its value (Bygstad et al., 2020). According to the results of a recent survey, many businesses are increasingly viewing information technology as a strategic business concept because it reduces transaction costs while also challenging other established business models. A shift in the way top executives think about their roles and collaborate with one another is what we mean when we say "leadership." In order to compete in today's digital world, organizations' organizational structures and information technology infrastructures must be updated and modernized.

Additionally, there has been an increase in turbulence and dynamic in industries and markets as new technologies have been introduced (Granados and Gupta, 2013). Due to lower barriers to entry due to digitalization, new competitors with innovative business models have emerged Granados and Gupta (2013). With both physical and digital competitors vying for their attention, incumbents are likely to face a more challenging situation (Grover and Kohli,

2013). Digitized markets are the primary marketplaces for buyers. Environmental change also includes a shift from traditional product-market perspectives to business ecosystems that include a wide range of network partners. Firms in this new competitive landscape must determine how they fit into the larger ecosystems already in place (Grover and Kohli, 2013).

3.2 Components of Digital Marketing Strategies

Many companies use a DMS to develop new digital products and services through the use of digital resources, big data, and often complementary platforms (Granados and Gupta, 2013; Bygstad et al., 2020). Integrating and streamlining business processes are also the goals of DMS (Bharadwaj et al.,2013). Digitized processes should be data-driven if they are to maximise automation (Holotiuk and Beimborn, 2017).

Considering DMS, new types of digital business models are gaining prominence (Bharadwaj et al.,2013; Drnevich and Croson, 2013). As a result, the digital economy provides new and distinct opportunities for value creation and capture. Bharadwaj et al. (2010), Chi et al. (2018), about information abundance, multisided business models, network-dependent business models, and control over an entire digital industry architecture (Bharadwaj et al.,2013). New business models should be multifaceted, offering differentiated mechanisms for creating and capturing value (Bharadwaj et al., 2013), for example, by delivering seamless integrated omni-channel services to customers (Holotiuk and Beimborn, 2017). Digital services augment physical products, enhancing the customer experience and generating and capturing new sources of value (Holotiuk and Beimborn, 2017).

According to DMS, it is critical for a business to integrate its operations and information technology (Bharadwaj et al., 2013). In a digital environment, information technology cannot be divorced from overall business strategy and must be viewed as a strategic asset: synergy between business and information technology enables a firm to gain a competitive edge (Drnevich and Croson, 2013). Additionally, businesses are increasingly reliant on IT-based innovations (Holotiuk and Beimborn, 2017). IT does not merely support, but rather adds value to the business. IT governance is also required in this context to ensure that digital initiatives are aligned (Holotiuk and Beimborn, 2017).

The DMS cannot achieve its goals without significant investments in information technology infrastructure (De Baat Doelmann et al., 2021). Investment in IT should move from a purely operational expenditure to a strategic business benefit (Drnevich and Croson, 2013). Having a standardised IT infrastructure that allows for data exchange via digital platforms is essential to enabling DMS (Bennis, 2013). The landscape of information technology is changing, with "micro-applications" built on top of digital platforms replacing complex in-house developed systems (Grover and Kohli, 2013). In order to keep their applications safe from competitors, businesses must decide which parts of their applications should be made public and which should be kept under wraps (Grover and Kohli, 2013).

Competitive advantages can be gained or maintained through the use of digital assets based on information technology (Chi et al., 2018). By providing a foundation for effective digital technology use in the workplace, digital resources open up new strategic digital opportunities (Bygstad et al., 2020). The Digital Asset Management System (DAMS) also aims for cross-functional integration and cross-functional business processes (Granados and Gupta, 2013; De Baat Doelmann et al., 2021). There are numerous digital resources that must be utilised for (real time) analytics and sense-making in order to gain meaningful insights from the data. For example, big data is a critical digital resource that must be utilised in this way (Chi et al. 2018). Strategic use of digital resources makes digital technologies possible. As Bennis (2013) points out, new products and services are increasingly incorporating digital technology (Bharadwaj et al.,2013). It's also critical that an ecosystem has the ability to

orchestrate a collection of dynamic, data-rich digital resources (De Baat Doelmann et al., 2021).

3.3 Levels of Digital Marketing Strategies

The steps to develop a DMS focus more on a process theoretical perspective. Few papers comment on the strategic development process of DMS and outline concrete steps that need to be taken. However, we summarized the major activities to consider when developing a DMS in a framework of four steps.

First, management needs to develop a vision and goals for the DMS. They need to communicate the goals as well. In addition to that, the development of a strategy roadmap for digital initiatives is required. Thereby, the entire firm needs to develop a holistic understanding of DMS, especially the senior leadership team (De Baat Doelmann et al., 2021).

Second, resources and responsibilities need to be aligned. Furthermore, the firm needs to build an agile and scalable technology landscape to create and capture the value of DMS. Third, digital business models must be designed. Thereby, understanding and focusing on the digitally savvy customer and their needs is essential to design digital products and services that cater to them (Bygstad et al., 2020).

Finally, the firm needs to continuously adapt to the new dynamics by positioning themselves in the digital landscape; thus, they need to experiment with new digital innovations to be prepared for future strategic questions in the digital context. Thereby, the internal results and external factors must be monitored, and human resources must be linked to the stakeholders of strategy implementation to ensure the needed competences (De Baat Doelmann et al., 2021).

3.4 Performance of Digital Marketing Strategies

DMS gives businesses the ability to take advantage of new digital opportunities and markets in order to gain an advantage over the competition (Bharadwaj et al., 2013; Drnevich and Croson, 2013). Firms can improve their ability to respond quickly and effectively to changing market conditions (Drnevich and Croson, 2013). In addition, a successful DMS can lead to reduced costs and increased productivity (Holotiuk and Beimborn, 2017). DMS can improve operational performance, which in turn may lead to an increase in overall firm performance (Chi et al., 2018).

The increased profitability that DMS is expected to bring is one of the primary goals of the system (Drnevich and Croson, 2013). Because of this, the return on assets and the operating income to asset ratio are both improved when DMS is implemented (Chi et al., 2018). DMS can improve financial performance in terms of return on investment, profitability, liquidity, market share, and business growth by configuring certain capabilities (Holotiuk and Beimborn, 2017).

6. Conclusion

In this paper, we hope to achieve this by providing a high-level overview of current DMS research, which we hope to accomplish. It includes the high-level dimensions of causes, components, development steps, and outcomes that are found in the DMS framework, as well as additional dimensions. DMS development decisions are influenced by a wide range of factors, including technological advancements, organisational changes, and the general business environment. Identify and prioritise the following factors when developing a DMS: digitalization of products and processes, implementation of business models, information technology governance and principles, information technology investment and prioritisation, digital resources, and ecosystem compatibility, as well as organisational capabilities, leadership style, and organisational culture. The process of developing a DMS can be broken down into four distinct steps, which are as follows: Although it is unlikely, it is possible that

the implementation of an enterprise resource planning system will have a positive impact on both financial and nonfinancial outcomes.

Researchers in the fields of information systems and strategic management will benefit from this literature review because it will fill in a gap in their understanding of DMS that has previously existed in their fields. Through the development of a conceptual framework for the relevant DMS dimensions and categories, we can make a significant contribution to this value. This framework can be used as a starting point for further research and development by those who are interested in learning more about DMS and possibly developing their own version of the system.

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