Role of Social Media and Digital Platforms in Healthcare Marketing: A Scoping Review

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Abstract
Introduction: Healthcare providers face increased competition as they expand their facilities and services for patients. Healthcare marketing plays a significant role in their performance, with well-designed strategies resulting in better innovation outcomes and healthcare services. This scoping review analyzed how social media and digital platforms become part of the marketing strategy.
Methods: This study employed a scoping review methodology to screen manuscripts from 4 databases: Proquest, Emerald Insight, Springerlink, and Garuda. PEO framework outlined as Population refers to healthcare consumers, Exposure was the digital marketing and Outcome was the effectiveness of social media and digital technologies in hospital. The eligibility criteria included: unrestricted access to the article, published in the last five years, manuscript in English.
Results: PRISMA flow chart was used to show each step of the eligibility criteria for article selection. The study selected a total of 7 articles that met the inclusion criteria. Five of the articles showcased hospitals' social media strategies, one highlighted their adoption of social media, and one highlighted the impact of media framing. The social media had been found to positively affected both brand loyalty and the overall customer experience.
Conclusion: The report emphasizes how social media and digital platforms are becoming more important in hospital marketing, as well as how they affect consumer satisfaction and brand loyalty.

Keywords: digital marketing; social media; hospital;

Introduction

The dynamic evolution of markets and life has greatly impacted healthcare systems and organizations, forcing important organizational adjustments and established healthcare marketing as a crucial component of health brands.[1] Moreover, due to the increasing competition within the sector, healthcare organizations have to treat marketing as a top-level managerial responsibility, which aimed to be success and advance in the organization as a whole.[2]

An effective promotional approach may enable healthcare providers to establish an optimal market presence that attracts prospective patients.[3] The customer experience includes subjective and multifaceted reactions to items or services. The significance of customer experience in healthcare lies in patient perceptions, interactions with several

stakeholders, and the enhancement of patient satisfaction.[4] Taken as a whole, these factors serve as the primary motivators for creating effective marketing strategies in the healthcare industry.[5]

People generally view branding as an effective marketing strategy that shapes consumer decisions and distinguishes health care companies from their competitors.[6] In healthcare institutions such as hospitals, branding plays a role in establishing a distinctive image that reflects their strong commitment to delivering consistent and quality care tailored to patient needs.[7] Hospitals should define their brand architecture before implementing communication initiatives, including identity, values, mission, vision, and culture.[8] Identity outlines the founders' reasons for creating the organization, while values are intangible ideas used to influence employees and achieve goals. Missions are midterm goals, visions are long-term objectives, and culture reflects the unique way employees work to create tangible value for clients.[9][10][11][12][13]

The healthcare sector encounters obstacles in assessing how social media influences service delivery. A number of healthcare facilities remain skeptical and hesitant to adopt social media. However, with the rising need for real-time access to health-related information, many hospitals are beginning to adopt social networking tools to interact with both patients and the wider public.[14] Hospitals utilize digital transformation, mobile applications, and social media to enhance stakeholder bonds and promote their brands, despite challenges like legal compliance, limited budgets, and ethical standards.[15] Social media has transformed healthcare interactions, particularly for hospitals. Hospitals use social media platforms for communication, marketing, and service delivery. They can reach new patients, provide health information, establish their presence, and present their services. They also use social media for educational purposes, employer branding, and recruitment. Additionally, hospitals can use social media as trustworthy sources for online health information, as web content on healthcare topics is often questionable.[16]

Prior studies have documented the impact of digital marketing in Indonesian hospitals.[17] So far, the studies aimed to evaluate the effectiveness of social media as digital marketing tools. Hence, this paper seeks to offer a more in-depth overview of the ways social media and various digital platforms support branding efforts, build trust, and enhance engagement with both clients and key stakeholders.

Methods

This scoping review incorporating the PRISMA framework to explore the utilization of social media and digital platforms in hospital marketing strategies. The literature search spanned four databases—Proquest, Emerald Insight, Springerlink, and Garuda. The search terms included 'hospital digital marketing,' 'marketing,' 'digital media,' and 'digital marketing' combined with 'hospital.' These keywords were used to locate empirical studies in English that mentioned the terms repeatedly. Initially, 18,208 publications were identified. Following the elimination of duplicates and a structured selection process based on the article's title, abstract, and availability of full text, the number of relevant publications was narrowed down to 988.

The inclusion criteria include: 1. Unrestricted access to the article; 2. Publication of the article in 2019 or within 5 years of the research's completion; 3. Use of English as the primary language; and 4. A discussion that follows the topic of the analyst's scoping review. According to the inclusion criteria, 850 out of 988 articles were not eligible.

PEO framework—comprising Population, Exposure, and Outcome—outlined as follows: a) Population refers to healthcare consumers, b) Exposure is the digital marketing and c) Outcome pertains to the effectiveness of social media and digital technologies in healthcare settings. The final screening found 7 articles that match specified requirements and relevance. The detailed process of study research is shown in Fig. 1.
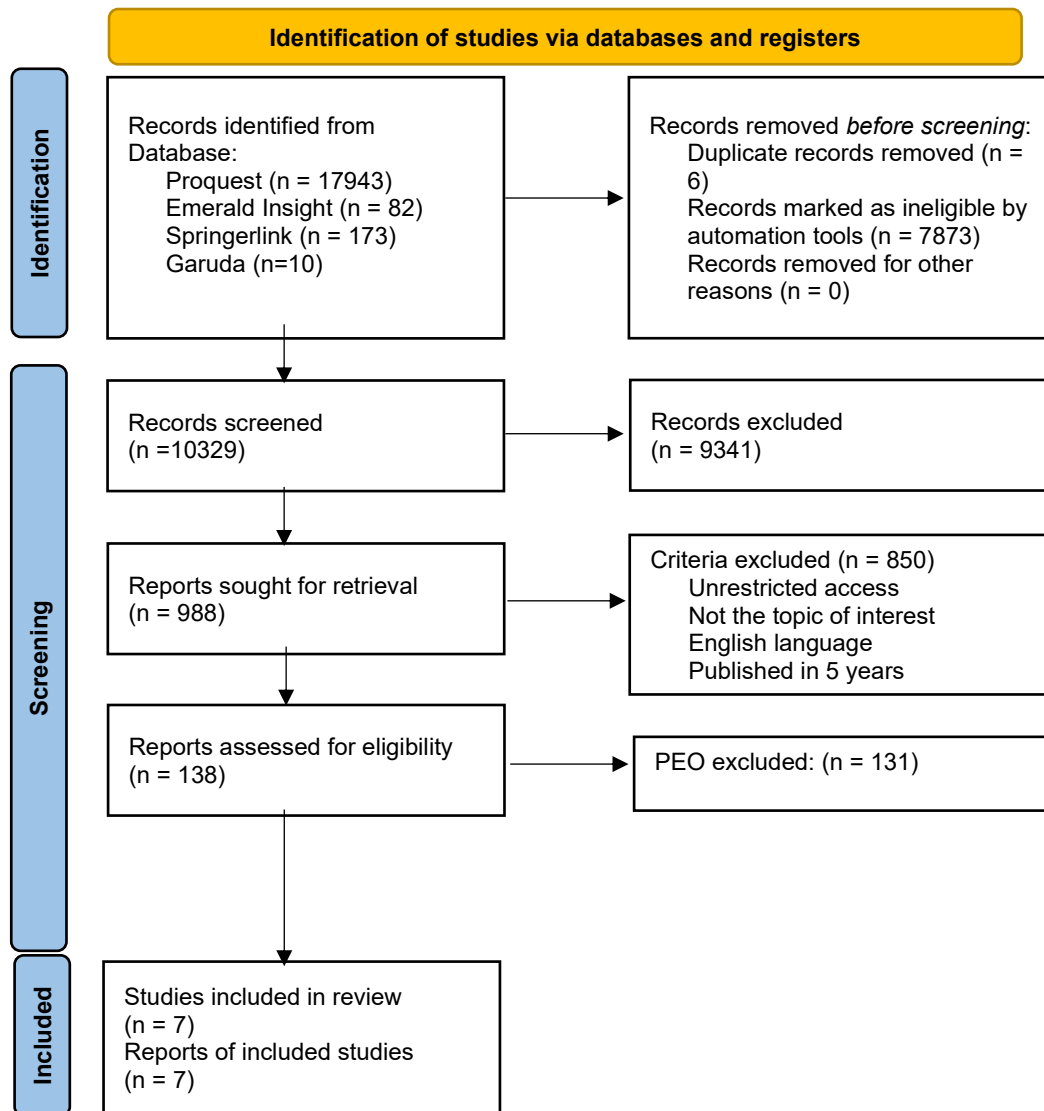
Identification of studies via databases and registers

Identification

Records identified from Database:
    Proquest (n = 17943)
    Emerald Insight (n = 82)
    Springerlink (n = 173)
    Garuda (n=10)

Records removed *before screening*:
Duplicate records removed (n = 6)
Records marked as ineligible by automation tools (n = 7873)
Records removed for other reasons (n = 0)

Screening

Records screened (n =10329)

Records excluded (n = 9341)

Reports sought for retrieval (n = 988)

Criteria excluded (n = 850)
    Unrestricted access
    Not the topic of interest
    English language
    Published in 5 years

Reports assessed for eligibility (n = 138)

PEO excluded: (n = 131)

Included

Studies included in review (n = 7)
Reports of included studies (n = 7)

Fig. 1. PRISMA flowchart of selection process for the eligibled-articles

Results

The final screening resulted in 7 eligible articles. A study in Switzerland presents the first comprehensive model (TOE framework) regarding the factors influencing the adoption of social media by hospitals, by examining the use of seven widely known platforms. In Switzerland, 20.4% of hospitals are public, 23.3% are part of a hospital network, 59.5% have educational programs, and 74.6% of all hospitals have their personal social platforms presence on at least one platform. Hospitals in Switzerland with greater patient loads or a larger proportion of individuals under voluntary health insurance tend to adopt social media platforms more frequently. Conversely, those integrated within broader hospital networks show a reduced tendency to independently oversee institutional social media profiles. [16]

Pablo Medina Aguerrebere et al. highlight that cancer hospitals utilize a range of digital platforms—such as institutional websites, Facebook, Twitter, and YouTube—for branding purposes, aiming to build credibility and shape stakeholder perceptions. [8] However, their efforts are often constrained by limited

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resources and legal challenges, which hinder optimal management. Based on quantitative data categorized into four groups, best practices were identified, showing that only 70.5% of the reviewed hospitals had official websites available in English, and most did not meet all corporate identity criteria. On Facebook, although many hospitals had verified accounts, 74% did not comply with essential profile management standards. Similarly, 74.5% of hospitals maintained a business presence on Twitter, yet many failed to adhere to identification requirements. On YouTube, 67.5% had institutional profiles, but the majority did not meet content quality standards.[8] In a separate study of French hospitals, smart technologies were being adopted to boost brand promotion and patient engagement; nonetheless, several areas still required improvement, including homepage design, online newsrooms, institutional overview sections, artificial intelligence departments, and performance presentation. Specifically, 147 out of 150 hospitals had operational websites, but most did not meet the expected evaluation standards. Additionally, 87.07% offered online newsroom features, and 90.63% provided digital press archives with a primary focus on medical services. While all hospitals included an "About Us" section, only 29.93% provided comprehensive corporate documentation and 24.5% included video content. A mere 2.05% featured interactive infographics, and none had established portals for vendors or shareholders. Regarding artificial intelligence initiatives, just one hospital had developed a specialized department focused on AI applications in healthcare.[15]

In Egypt there is a study investigates whether social media marketing has an influence on brand loyalty in Egyptian private hospitals ($\beta = 0.532$, CR = 5.030, CR > 1.96, p = 0.000, p < 0.05). Social media marketing has an influence on customer experience in the Egyptian private hospitals ($\beta = 0.777$, CR = 13.198, CR > 1.96, p = 0.000, p < 0.05). Customer experience has a result on brand loyalty in the Egyptian private hospitals ($\beta = 0.379$,

CR (critical ratio) = 2.993, CR > 1.96, p = 0.003, p < 0.05).[4]

Social media adoption varied by platform, according to Dalsang Chung *et al.*, with 763 (83.66%) having a Facebook account, 438 (48.02%) having a Twitter account, 557 (61.07%) having a YouTube account, and 183 (20.06%) having an Instagram account. There were accounts on three platforms for 289 (31.68%) hospitals. Out of the 912 hospitals, 104 (11.4%) had accounts on all four social media sites. Hospitals expect this trend to persist in the upcoming years, as it streamlines and lower the expenses associated with upholding relationships with patients and consumers. In general, hospitals in the Midwest are making effective use of social media.[14]

Study at Hermina Galaxy Hospital, ranks Instagram first (22.07), followed by TikTok (22.07) and the website (12.89). Hermina Galaxy Hospital uses social media platforms like Instagram, TikTok, and websites for customer communication. Instagram's effectiveness is higher than other platforms, making it an effective digital marketing strategy. Longer research time can provide valuable data for effective digital marketing schemes based on varied social media platforms. [18]

Nuzulul Kusuma Putri and Ernawaty conducted qualitative research in Indonesia, indicating that unfavorable media narratives can lead individuals to question the benefits of participating in social health insurance. The National Health Insurance program should be presented as an effort aimed at helping low-income populations. BPJS Kesehatan must ensure that media coverage consistently emphasizes the value of collective responsibility (gotong royong) within the system, as promotional messaging plays a vital role in drawing interest from potential members. To improve public awareness of the program's importance, constructive media portrayals of its core values would be highly beneficial. [19]

Table 1. Summary of the eligible articles (n=7)

Author; Year; Country	Title	Objectives	Methods	Conclusion
Michael Beier *et al* [16]; 2020; Switzerland	Technological, Organizational, and Environmental Factors Influencing Social Media Adoption by Hospitals in Switzerland: Cross-Sectional Study	This research aimed to develop a comprehensive framework for social media adoption by hospitals within the Swiss healthcare context and to validate the framework using real-world data collected in Switzerland.	Empirical data were gathered from all 283 hospitals in Switzerland, identifying the social media accounts they manage across seven distinct platforms. The proposed hypotheses were examined using binary logistic regression, where the dependent variable represented the adoption of a platform, and negative binomial regression was applied to assess the total number of platforms utilized by each hospital.	This research outlines a detailed framework for how hospitals in Switzerland have embraced social media, shedding light on the key determinants that shape their engagement with these platforms. It presents a foundational model that could serve as a valuable tool for systematically constructing and analyzing advanced frameworks for social media integration within healthcare institutions across different countries.
Nuzulul Kusuma putri, Ernawaty [19]; 2020; Indonesia	Viral marketing content for Universal Health Coverage campaign in Indonesia	This research seeks to identify specific types of promotional content that can be effectively disseminated to support the Universal Health Coverage initiative in Indonesia.	A qualitative content assessment was conducted to explore how the media framed the issue and how the public reacted to it. Two prominent digital news platforms were examined to identify the framing strategies employed by the media. Public responses were analyzed based on user interactions within a specific Facebook community.	News portrayal is closely linked to how the public responds. In the Indonesian context, unfavorable reporting related to the National Health Insurance program appears more frequently.
Chung, Dalsang *et al* [14]; 2021; USA (U.S Midwest Region)	Analyzing Social Media Implementation in Hospitals in the U.S Midwest Region	The intention of this analysis is to examine to what level hospitals are applying social media and establishing it in consistency with hospital aspects.	The study examined 912 hospitals listed in the 2015 American Hospital Association Annual Survey Database. It investigates each hospital's presence on various digital platforms by assessing the number of accounts and level of activity. To evaluate how hospitals have integrated digital platforms into their communication strategies, the analysis considered both posting frequency and engagement as key indicators. One-way ANOVA was applied to determine whether significant differences exist among hospital groups in terms of their engagement across different social networking platforms.	Hospitals in the Midwest are progressively utilizing digital networking channels such as Facebook, Twitter, YouTube, and Instagram to effectively build connections with patients and the broader community. The way users engage with these digital platforms varies by state, subtly shaping how hospitals integrate them into their communication and outreach strategies.

Author; Year; Country	Title	Objectives	Methods	Conclusion
Pablo Medina Aguerrebere *et al* [8]; 2022	Promoting Health Brands through Social Media. A Quantitative Analysis about the World's Best Cancer Hospital	This study investigates how leading oncology institutions across the globe utilize digital platforms and official websites to promote their brand identity and enhance institutional credibility.	This study applies a quantitative approach by collecting data from 200 top-ranked oncology hospitals worldwide. The evaluation is based on 48 indicators grouped into three categories—identity, communication activities, and patient engagement—to assess how these institutions perform across various social networking platforms.	Cancer hospitals are embracing digital tools such as online platforms, mHealth technologies, advanced analytics, and artificial intelligence to drive their digital transformation efforts. To enhance overall performance, it is essential for them to establish a dedicated corporate communication unit, adopt integrated strategies, and provide staff with training in professional communication competencies.
Mohammad Wagih Abd El Azis *et al* [4]; 2024; Egypt	Impact of Social Media Marketing on Brand Loyalty, through the mediating role of customer experience: An Applied Study in the Egyptian Private Hospitals	The research explores how branding through digital platforms impacts patient loyalty toward private hospitals in Egypt, considering the mediating role of customer engagement.	The research adopts a quantitative methodology, distributing surveys to a sample of 700 individuals. The participants in this study are customers of private hospitals in Egypt. To assess the proposed framework, the analysis followed a two-phase process using Structural Equation Modeling (SEM) as the primary analytical technique.	The findings indicate a significant direct relationship between digital marketing efforts on social platforms and consumer loyalty, along with associations involving customer perceptions and brand commitment. Customer engagement was found to play a partial mediating role in the link between social platform marketing strategies and loyalty outcomes within Egypt's private healthcare institutions.
Pablo Medina Aguerrebere *et al* [15]; 2024; French	The Role of Smart Technologies in French Hospitals Branding Strategies	This research explores how prominent healthcare institutions in France implement advanced digital technologies to strengthen their connections with key stakeholders and enhance their brand reputation.	The research adopts a quantitative approach, gathering data from 150 top-ranked hospitals in France using 34 brand identity indicators to evaluate how each institution leveraged smart technologies to achieve their brand development goals.	1. Healthcare institutions in France are encouraged to adopt a unified branding strategy that actively involves all relevant stakeholders, extending beyond just patients. 2. It is recommended that hospitals develop an internal department focused on artificial intelligence to support digital transformation efforts aimed at optimizing operational workflows. 3. French healthcare providers should leverage their official websites, social networking platforms, and mobile apps to highlight distinctive visual identity components that reinforce both authenticity and social trust.

Author; Year; Country	Title	Objectives	Methods	Conclusion
Sharen Agatha Josephine *et al* [18]; 2024; Indonesia	Efektivitas Platform Media Sosial Sebagai Langkah Strategi Digital Marketing Rumah Sakit Hermina Galaxy	This study aimed to evaluate how well social networking tools function as part of the digital marketing approach for Hermina Galaxy Hospital. The assessment focuses on platform selection, specifically analyzing the hospital's website, its official Instagram profile, and its official TikTok account, based on audience engagement with the published content.	Secondary data from the Wasdal report of RS Hermina Galaxy for the period January–March 2023 were used. A descriptive analysis and Kruskal-Wallis tests were performed to describe the effectivity of the social media platform used by Hermina Galaxy Hospital.	The most effective social media strategy is through Instagram, followed by TikTok, and the official hospital website. However, the quality of content response on Instagram is still below the standard needed.

Discussion

Hospitals and other healthcare organizations have begun adopting marketing concepts and strategic thinking to improve their operational performance. The healthcare industry is confronted with several key challenges and essential components of a successful marketing strategy, such as the requirement for more precise and well-structured long-term planning, opportunities to develop innovative services and community-based initiatives, and the necessity to refine and realign the target audience for service delivery. The wide range of service demands from various client groups has made it increasingly difficult for healthcare providers to implement uniform marketing practices.[5]

Digital marketing leverages digital technology to strengthen customer connections, promote products and services through online database channels, and reach every consumer with integrated, targeted, and measurable communications.[20] Social media marketing campaigns and digital technology are becoming important parts of every nation's health care marketing strategy.[21] In brief, it is critical for healthcare organizations to create a creative social media marketing strategy. It is the best method to inform and emotionally connect with consumers on a deeper level. With a successful social media plan, healthcare organizations may capture the interest of prospective clients and provide exceptional customer care.[22]

As the role of social media continues to expand, more organizations are recognizing its substantial impact on business performance. More than 90% of marketing professionals now rely on digital platforms as essential tools in their promotional strategies.[23] Benefits such as cost efficiency and increased sales performance are among the key drivers behind the adoption of social media marketing in businesses.[20] According to Nielsen's 2023 social media research, users spend around 24 percent of their total online activity on social networking platforms.[24] Porteous noted that as early as 2018, approximately 97 percent of Fortune 500 firms had already been using at least one social platform to support project advancement and boost stakeholder engagement. Furthermore, as of 2021, global social media users reached roughly 3.78 billion, reflecting a 5 percent increase from the previous year.

According to research from the six afore mentioned articles [4][15][16][8][18] social media adoption and applications can improve communication effectiveness, engagement strategies, and foster long-lasting customer relationships in the healthcare industry. Hospitals in the US Midwest and France, as well as Cancer

Hospitals worldwide, were more familiar with using company websites and Facebook, while Indonesians were more familiar with Instagram and TikTok. Facebook is the largest social network globally, with over 1.49 billion monthly active users.

In today's digital age, media-based communication plays a vital role in enabling the effective exchange of information.[24] Internet-based platforms function as channels for delivering content related to social health insurance. Viral advertising captures public attention through two complementary mechanisms: the dissemination of promotional content and the interpretation of the brand message it conveys. A consumer's perception of the brand significantly impacts their willingness to share the viral content, especially when the impression formed is positive.[19]

According to Nuzulul Kusuma Putri and Ernawaty's study in Indonesia, negative news about National Health Insurance can lead to media framing and negative consumer responses. Therefore, we should engage people with viral marketing content that showcases how obtaining National Health Insurance embodies the true essence of *gotong royong* (collective responsibility) principles.[19]

Conclusion

These studies highlighted the growing influence of online networks and digital technologies in the hospital marketing strategies. Social media-based promotions had been found to positively affected both brand loyalty and the overall customer experience. While the majority of hospitals maintained official websites and utilized social platforms, many fall short in meeting standards for content quality and functional design. Additionally, numerous institutions did not align with corporate identity guidelines across their digital channels. To strengthen their digital presence, hospitals must enhance content depth and foster greater user interaction within essential areas of their websites. Since negative portrayals in the media can shape public opinion, incorporating culturally rooted values may serve as an effective approach to viral marketing.

Authors' contributions

Dewi Kusuma Wati was responsible for selecting the articles and served as the lead writer of this paper, while Ayun Sriatmi and Septo Pawelas Arso contributed through constructive feedback and handled the editing process. All authors reviewed and gave their approval for the final version of the manuscript.

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