ISSN 2822-0323 (Online) January - June 2026

The Impact of Digital Technologies on Society and Public Health

Syamsul Hadi
Universitas Sarjanawiyata Tamansiswa, Indonesia
Corresponding Author
syamsul.hadi@ustjogja.ac.id
ORCID: 0000-0001-7226-4978

Chirapat Kaewnaknaew
Independent Researcher, Thailand
chirapat.kae@gmail.com
ORCID: 0009-0004-5027-5990

ABSTRACT

Objective: This article analyzes the impact of digital technologies on society and public health.

Method: A bibliometric study and a systematic assessment of pivotal works linking strategic management and organizational strategy, with a focus on how digital technology influences society and public health, were conducted using keyword co-occurrence and citation analyses.

Results: Academic interest peaked in 2023. Critical skills shortages occurred, with 45% in data analytics and 42% in crisis management.

Conclusion: Digital technologies and digital platforms build community. This article introduces the first 'Digital Competency Framework' for society and health professionals, which links 'soft' tactics to 'hard' digital campaign Key Performance Indicators (KPIs) in public health.

Keywords: digital technologies, strategies, society, public dental health, management

1. INTRODUCTION

Social media was a popular marketing approach in dental practice, especially for sharing and receiving information and attracting new patients. Females were more interested in utilizing social media. The most popular platform used among patients was Instagram, while the practitioners preferred Twitter. The use of various social and governmental media platforms was more interesting. media platforms than the private ones in dental marketing. Among dental practitioners, photographs and videos of personal work were the most favored post types, while patients preferred awareness posts the most (Ajwa et al., 2018).

Public health has changed due to digital communication, intervention methods, and technology infrastructure. The revolutionary promise of digital social marketing in public health is weighed against its structural, ethical, and psychosocial constraints. Data-driven targeting, personalized content, AI-supported optimization, two-way communication, and measurability promote public health via digital social marketing. Social media, chatbots, and mobile apps have enhanced campaign awareness, engagement, and message efficacy. These efforts are hindered by digital inequity, algorithmic bias, misinformation, privacy concerns, and psychological challenges. Digital public health stresses education and accuracy, while international research emphasizes personalized communication, cultural adaptability, AI-based treatments, and sustainability. It suggests sustainable, data-driven, inclusive, and equitable digital social marketing strategies to improve public health digital initiatives (Şenyapar, 2025).

Digital platforms are essential for organizations, especially healthcare providers, in the ever-changing digital marketing landscape. Consider how digital platforms increase outreach and engagement in private hospitals. The efficacy of hospital digital platforms depends on the quality of their digital content. Its effects on digital platform performance are studied using a large dataset from a Jordanian private hospital and rigorous analysis. The deployment of digital content affects online visibility, user engagement, customer trust, reach, and impressions. The complex relationship among Jordanian private hospitals' content generation, digital platform effectiveness, and consumer perception. These efforts help hospital managers and digital marketers understand digital communication strategies in healthcare. It could help healthcare professionals, digital advertising professionals, and researchers improve private hospitals' digital platforms in Jordan and worldwide. Well-written content improves the internet presence and effectiveness of private healthcare organizations (Abu Hmeidan et al., 2024).

Only progressive legislation, clever management, and technology have changed healthcare paradigms. Current needs, wants, and advancements have informed economic, organizational, functional, and therapeutic enactments throughout history, assuring sustainability and flexibility. The healthcare market encompasses hospitals, health insurance, drugs, devices, telemedicine, clinical research, and medical tourism. The competitive ecosystem requires structural enhancements for physical and virtual patient engagement tactics. Even in a digital environment, some marketing strategies work. In rural areas, word of mouth, print media, TV/radio commercials, and outdoor billboards still matter. AI, VR, and digitalization will transform healthcare marketing in the next decade. Instead of administering services, novel health solutions will be developed. Digital technologies and rising competition among healthcare providers will

make marketing crucial (Basnet, 2025). The chapter discusses the huge impact of digital marketing and social media on dental offices and patient interaction. It discusses ethics, patient perspectives, and the impact of influencer marketing on practice reputation. The chapter analyzes how societal determinants, self-perception, and consumer decisions affect oral healthcare utilization. It also shows how technology may improve dental health and provide remote consultations. The need for targeted marketing tactics and patient-centered communication, as well as for further research to address emerging challenges and promote ethical marketing in the digital age (Salman, 2024).

1.1 Research Objective

This review article focuses on the impact of digital technologies on society and public health.

1.2. Research Question

What is the impact of digital technologies on society and public health?

1.3 Research Gap

The key research gap regarding the impact of digital technologies on society and public health is the insufficient understanding of both the long-term effects and the inequitable outcomes of widespread digital use. Currently, most research on digital tools is focused on short-term benefits or risks. However, there's not enough evidence on long-term effects of digital tools (social media, telehealth, wearable devices) across diverse demographics, particularly for mental health, privacy, health disparities, and digital literacy. There is also a lack of comprehensive frameworks to assess the unintended implications of AI technologies, such as the propagation of disinformation, data security risks, and the amplification of social inequities, which impedes the development of effective regulations and remedies.

2. LITERATURE REVIEW

2.1 The Rise of Social Media in Health Communication

The digital revolution in healthcare communication has fundamentally transformed the way public health information is transmitted and absorbed. Social media has become a powerful tool for promoting health by enabling the rapid dissemination of health information, engaging people in online communities, and influencing behavior (Alsuyayfi, 2025). The application of digital marketing to public health practice has emerged as an innovative way to optimize communication and connect populations with targeted health interventions. Recent findings indicate that social media has elevated marketing to new heights and emerged as an influential medium in consumer decision-making, particularly in the health industry, where trustworthiness, credibility, and interesting information shape how individuals access, assess, and decide on their health (Kavitha, 2025).

Facebook and YouTube have become dominant players in the digital health communication ecosystem and offer both advantages and disadvantages for public health messaging. Facebook enables wide-reaching community mobilization and peer-to-peer information exchange, and

YouTube offers an optimal platform for digital educational videos to improve information retention and learning outcomes. They were brought to the forefront during the pandemic, highlighting their importance in health emergency responses and showing the need for better evidence-informed digital health communication. Enhancing knowledge of platform-specific features and user behavior is crucial for developing digital marketing strategies that appeal to key audiences and maintain a professional reputation and public interest (Lim et al., 2022; Shauly et al., 2023).).

Social media has revolutionized health communication as knowledge can be shared rapidly and among a large audience. Social media platforms such as Facebook, Twitter, and Instagram enable health organizations, experts, and individuals to share instructional content, raise awareness of public health issues, and combat disinformation in real time. This digital transition has enabled increased participation, individualized messaging, and peer-to-peer support, resulting in health communication that is more engaging, more accessible, and more instantaneous than ever before.

2.2 Social Media in the Dental Health Contexts

In dental health, patient acquisition and retention are essentially a matter of online presence and reputation management, thus making digital marketing more important in this sector (Ostojić et al., 2025). Recently, online reviews and website quality have had the greatest positive impact on dental tourism client trust and happiness, followed by social media presence and advertising additional services. Price transparency shapes how patients view dentistry, making multi-touchpoint, integrated marketing campaigns crucial across various phases of the patient experience. The digital dentistry revolution requires sophisticated marketing and channel-convergence expertise to ensure a smooth patient experience.

The special restrictions under which dental practitioners operate affect their digital marketing, such as the need to balance maintaining a professional image with avoiding technical jargon (Meira et al., 2021). Specific themes in orthodontists' Instagram posts affected public views of professional credibility and client appeal. Participants said "being a teacher" and "before-treatment vs after-treatment" most affected professional credibility. The content categories and public-private partnerships were less widely accepted, suggesting that consumers could distinguish professional information from personal brand-building efforts. Strategic content planning addresses current patients, future clients, and referring professionals and meets professional standards.

Social media is a great tool for dental health, allowing dental professionals to educate, engage, and interact with current and prospective patients. Dentists can use Instagram, Facebook, and TikTok to provide oral hygiene recommendations, share before-and-after results, and discuss common dental issues, so people can access dental care information more easily and it’s easier to grasp. It also fosters a sense of community, encourages frequent dental appointments, and works to dismantle stigma and anxiety surrounding dental procedures through clear communication and patient success stories.

2.3 The HR Imperative in Digital Transformation

Human resource management plays a pivotal role in the successful implementation of digital transformation initiatives in healthcare organizations (Saryldz, 2025). Healthcare organizations are increasingly focusing on talent management and its role in the Health 4.0 process in a rapidly digitizing world. Demographic changes in the healthcare sector and hospitals, coupled with increasing service demands, highlight the critical importance of Human Resources Management once again. Talent management is critical to attracting, developing, and retaining employees in healthcare services, enhancing healthcare workers' skills and leadership capacity, and directly impacting organizational success. The realization of the fourth industrial revolution in healthcare services makes it essential for care providers to have instant access to patient information from any location and to communicate swiftly with specialists, which facilitates better-organized care (Hadi et al., 2025 a & b).

The HR perspective on digital marketing strategy is multifaceted and extends beyond classic recruitment and retention (Ajayi-Nifise et al., 2024). It includes digital transformation. New digital capabilities are helping companies change business structures and operations. HR is crucial because it manages organizational change, promotes innovation, and develops digitally aware staff. Digital transformation relies on change management, and HR can help by raising awareness, preparing people, and aligning them with digital goals. HR in the construction industry will shape and deliver training programs to reskill the workforce for the new digital environment while maintaining operational continuity and service offering.

Digital transformation is changing enterprises, and the function of HR becomes more important than ever. HR needs to lead the way in establishing a future-ready workforce, accelerating a culture of continuous learning and promoting the adoption of new technology. HR is critical to ensuring people remain central to transformation activities by developing agile talent strategies, reskilling staff, and leading change management. In the end, proactive HR participation is crucial for matching people with the company's growing needs and enabling long-term digital success.

2.4 Theoretical Foundations and Research Gaps

A synthetic theoretical approach is needed in the social sciences at the crossroads of digital marketing, public health, and HR. Source Credibility Theory is a strong theoretical lens for explaining influencer marketing, and Parasocial Interaction Theory and Congruity are necessary for explaining audience engagement behaviors (Han & Balabanis, 2024). These theoretical insights offer insight into how healthcare organizations can use social media to build trust and credibility, as well as relationships with diverse publics. The Technology Acceptance Model also extends the influence of perceived usefulness and perceived ease of use to the adoption of digital marketing tools in organizational environments (Tanantong & Wongras, 2024).

Therefore, relatively little is known about how HR strategies can enhance DMEff in public dental health settings, despite growing research on this topic. The literature provides scant empirical evidence on competencies for healthcare marketing professionals, training programs, methods for enhancing staff members' digital literacy, and an organizational model conducive to

implementing an integrated digital marketing strategy. Moreover, the cross-cultural dimensions of global digital health marketing remain largely unexplored, particularly regarding how cultural values and norms, the regulatory environment, and their technological context influence platform selection and content strategies across geographies.

2.5 Social Media for Dental Public Health Digital Marketing

Social media is widely used among younger dental practitioners, primarily for education, communication, and marketing purposes. While social media use is associated with perceived improvements in practice quality and patient care, trust in information on social media remains low, and concerns persist about its effects on patient relationships. It is recommended that enhanced guidelines be established and reliable web-based resources provided to help dental practitioners use social media effectively and responsibly (Acosta et al., 2025).

Dental advertising in Jordan is regulated. Dental professionals must obtain council approval before advertising to ensure compliance with ethical and professional standards. Jordan's dental advertising landscape has improved, although there is little data on dentists' views on advertising. This pilot study examines dentists' views on advertising, demographics, preferred advertising outlets, and the predominance of dental advertising. Additionally, it seeks to explain the limits of dental advertising. 206 Jordanian dentists were randomly selected to complete a comprehensive online survey on dental advertising opinions. Dentists now see advertising more favorably. The study found that 79.1% of dentists approved of dental advertising. Advertising is said to improve dental services (51.9%), cut prices through competition (26.7%), provide educational information (74.3%), and help the community make informed decisions (59.7%). Critics say advertising lowers public trust in dentists (24.7%) and the profession (33.9%). Advertising was more supported by male dentists, senior practitioners, specialists, middle-income professionals, and those with over 10 years of clinical experience. Digital marketing platforms gained popularity over traditional advertising. Jordanian dentists are increasingly accepting marketing as a tool for practice growth. However, ethical and regulatory compliance are crucial in digital marketing (Anshasi et al., 2025).

Facebook was the predominant platform, used by 57% of clinics, whilst only 6.7% had YouTube accounts. Private clinics were markedly more likely to have Facebook and Instagram accounts than public clinics ($p<0.001$). Levels of engagement: No significant differences were observed between public and private clinics, except on YouTube, where public clinics had a higher mean rank for subscribers ($U=41$, $p=0.042$). Content research revealed that private clinics emphasized promoting cosmetic treatments on Facebook and Instagram, whereas public clinics concentrated on educational content on YouTube, showcasing dental care and treatment alternatives. Private dental clinics in Malaysia are more active on social media than public clinics, with Facebook being the preferred channel (Danabala et al., 2025).

A total of 421 individuals participated in this survey. A majority (68.4%) were aged 18 to 30, and 55.5% were female. WhatsApp (96.8%) was the most commonly used social media platform across all age groups and both sexes. Statistically significant differences were observed between genders in the use of Telegram, Twitter, and Viber among individuals aged 18–30, with a higher

proportion of males engaging with these platforms ($p \leq 0.05$). Comparable notable differences were observed in the 31–40-year age group for WhatsApp and Telegram ($p \leq 0.05$). YouTube was the most favored platform among 95.4% of online health information seekers, with a usage rate of 74.9%. 25% of respondents favored social media channels, while 22.3% preferred websites for acquiring oral health information. Moreover, 74.9% expressed favorable views toward obtaining oral health information through social media, and only 17% reported positive experiences with social media platforms for oral health promotion. In evaluating the reliability of oral health information on social media, 48% relied on content quality. The predominant source of oral health information was brief films from clinicians (43.1%). Furthermore, 69.5% reported changes in their oral health behaviors after obtaining information on social media (Jayasinghe et al., 2024).

Thus, today, social media are critical, high-impact platforms for dental public health marketing, providing hyper-local targeting and substantial educational authority, respectively. Facebook specializes in direct community engagement and lead generation through sponsored advertisements, while YouTube is the second-largest search engine and is well-suited for establishing credibility through long-form educational content and patient testimonials. Facebook and YouTube also are excellent digital marketing channels for Dental Public Health, allowing practitioners and organizations to reach large audiences with targeted, engaging content. Facebook's powerful demographic targeting makes it easier to effectively reach the right audience with oral health campaigns, instructional posts and community events to increase engagement and awareness. At the same time, YouTube is the perfect platform for sharing educational videos, tutorials, and patient testimonials that explain complex dental issues through visual stories. Together, these platforms are working to promote good oral health behaviors, dispel misconceptions, and develop trust across a spectrum of cultures.

2.6 Definitions

Human Resource Strategies: HR strategies are comprehensive, long-term plans that align an organization's personnel management policies, such as recruitment, training, and remuneration, with its overarching business objectives and culture. These methods aim to leverage human capital to achieve competitive advantage, improve performance, and address organizational challenges through systematic initiatives.

Facebook and YouTube: Facebook and YouTube are the preeminent global social media platforms, with Facebook having 3.07 billion users for extensive social networking and content dissemination, while YouTube excels in video consumption with 2.54 billion users. Both platforms enable creators to monetize their content and to broadcast live simultaneously.

Dental Public Health: Dental public health is a non-clinical, population-oriented specialty dedicated to the prevention and management of dental illnesses by structured community initiatives, health education, and policy formulation. It seeks to reduce oral health disparities, improve oral health within communities, and expand access to care through research and strategic planning.

Digital Marketing: Digital marketing involves promoting products or services through online platforms, mobile devices, and internet technologies, including websites, social media, search engines, and email. It facilitates focused, measurable, and cost-effective client engagement, empowering organizations to enhance brand visibility, drive traffic, and increase revenue.

3. METHODOLOGY

3.1 Data Collection

According to Page et al. (2021), systematic reviews are required, often using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach, and often focusing on digital transformation, marketing, and sustainable management in management contexts.

Search Strategy:

- **Databases searched:** Scopus, Web of Science, Google Scholar
- **Search period:** 2021–2025
- **Search terms/keywords:** human resources, HR, strategies, Facebook, YouTube, public dental health, marketing
- **Inclusion criteria:** Peer-reviewed articles, English language, quantitative and qualitative studies are included.
- **Exclusion criteria:** Duplicates, non-English, conference abstracts, etc.
- **Number of records retrieved, screened, and included**: 27 papers

3.2 Data Analysis: Bibliometric analysis

Bibliometric analysis of HR perspectives in digital dental health marketing research. From the bibliometric analysis, with an Early View Date in 2021 and a potential impact year of 2023, HR has been a dynamic area, with a dramatic rise in academic attention.

4. RESULTS

As shown in Figure 1 of the publication trend, research outputs peaked at 13 publications in 2023, following a lagged start in 2021 and 2022, and then leveled off over 2024-2025. This 2023 peak also corresponded with a significant increase in citations (as illustrated in Figure 2 below), with almost 2,000 citations, indicating the high impact of immediate post-publication on seminal contributions during that period, followed by an expected reduction due to lagged citations.

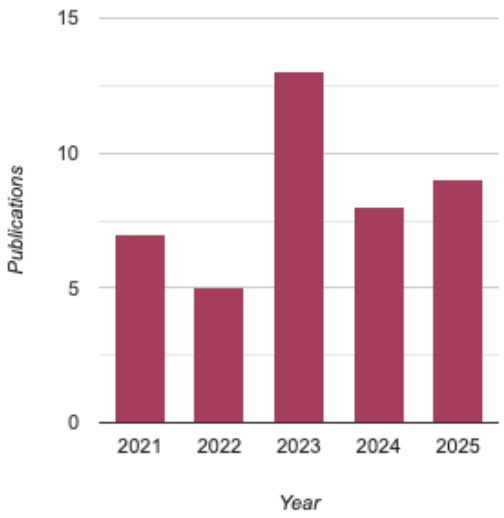

Figure 1. Number of publications over time

Source: Authors' elaboration.

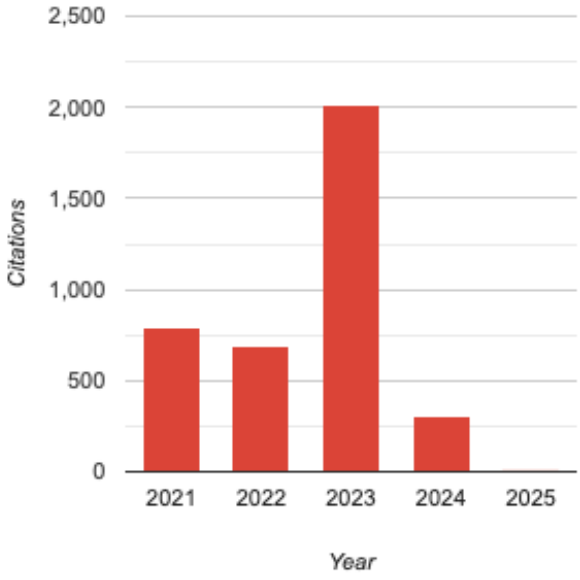

Figure 2. References by Year, Citation, and Type Counts

Source: Authors' elaboration.

The results confirm a strong convergence between digital media and management; "social", "media", and then "digital" emerge as the main terms in Figure 4, followed by HR-related ones like "management", "talent", or even human". This finding is also supported by the word cloud in Figure 3, which further emphasizes "organizations," "role," and "impact"; thus strengthening the structure of this paper (i.e., the abstract), which is centered around an interdisciplinary focus on how organizational and human resource strategies are essential in managing digital health campaigns on platforms such as Facebook and YouTube.

Figure 3. Word Cloud
Source: Authors' elaboration.

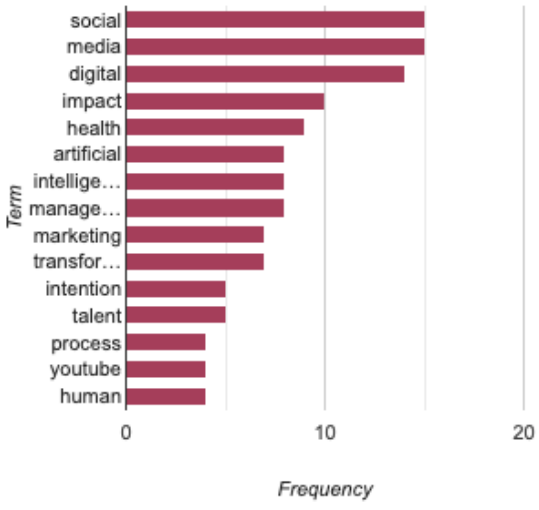

Figure 4. Top 15 Terms, most frequent terms in research titles: Most frequent word stems in publication abstracts. Source: Authors' elaboration.

5. DISCUSSIONS

5.1 . Strategic HR Perspectives on Digital Marketing Implementation

5.1.1 HR's Role in Digital Transformation Leadership

HR departments act as strategic partners in digital transformation activities and go beyond their merely administrative role to become designers of organizational change (Volianska-Savchuk et al., 2024). HR practices in the digital age are evolving due to technological advancements and company digitization, requiring more efficient, time-competitive, and innovative methods. Digital HR products simplify routine activities, eliminate errors, and improve efficiency and convenience for employees and HR staff. These technologies can gather more data, provide faster transparency into processes, and achieve objectivity, enabling better strategic decisions. Optimizing processes opens new avenues for tying strategic HR management to company strategy, especially for culturally specifying digital technologies.

HR and digital marketing strategies are no longer aligned as before; thus, alignment needs to be explicitly developed through a planned procedure (Milošević & Katić, 2025). AI is also accelerating candidate sourcing, simplifying application tracking, and enabling data-driven decision-making to improve hiring decisions. This has helped organizations identify top talent and improve the applicant experience. HR has used AI for retention and learned from its triumphs and mistakes. The introduction of AI into human resources is a game-changing move that boosts efficiency and people-oriented practices, advancing all aspects. Strategic AI deployment is essential to elevating the HR function to new standards for organizational performance.

5.1.2 Change Management and Organizational Readiness

Effective change management is a critical component of the successful adoption of digital marketing in healthcare (Kazanskaia, 2025). Digital transformation involves cultural change, agile behaviors, and skills development, not just new tools. Successful implementation requires change management, agile and iterative approaches, comprehensive education, and resource integration. Leadership, communication, and stakeholder participation are crucial to overcoming resistance and establishing ownership. These examples from the nonprofit and health sectors demonstrate how small organizations may embrace best practices and overcome adoption barriers and digital literacy gaps to succeed.

An organization's readiness assessment supports intervention planning (Charles et al., 2024). Strategic change management develops specialized workforce areas through communication, targeted training, and risk analysis. Leadership support, culture, and agile tactics help manage transitions, according to the data. Successful change management requires planning and continual monitoring to overcome hurdles, limited stakeholder involvement, and cybersecurity threats. AI, automation, and cloud must be examined for their effects on process efficiency and workforce capacity to ensure successful change.

5.1.3 Talent Acquisition and Development for Digital Marketing

Fostering a workforce capable of implementing complex digital marketing strategies requires strategic personnel management (Okatta et al., 2024). Companies are increasingly adopting data analytics to make strategic hiring decisions as HR changes. Data-driven HR analytics uses data to manage employees and achieve results. Data analysis of employee behaviors, performance patterns, and workforce dynamics can help firms make better decisions. Businesses can use retention, engagement, and productivity data to identify trends and address difficulties.

There are specialized approaches with respect to recruiting digital marketing talent in the healthcare sector (Albassam, 2023). AI-powered recruiting tools, such as resume screening, candidate matching, video interviewing, chatbots, predictive analytics, gamification, virtual reality assessments, and social media screening, are enhancing efficiency, reducing costs, and improving hiring quality. AI raises moral and legal issues, including algorithmic bias and discrimination. From job ads to candidate sourcing to shortlisting, prejudice and fairness should be considered throughout the hiring process. Organizations should balance the efficiency of automated systems with human judgment and assessments of cultural fit.

5.1.4 Employee Engagement and Digital Initiatives

Employee engagement is the foundation for effective digital marketing campaigns (Malik et al., 2023); relate to large datasets and sources from a global information technology consulting multinational corporation (MNC) found that a digitized HR ecosystem and AI-supported HR systems and applications improve employee experience and engagement. The effects of AI-supported HRM platforms on employee engagement and experience. Increased HR productivity and effectiveness. When used wisely, digital ecosystems improve human potential rather than replace it.

Promoting digital literacy and a culture of continuous learning supports the sustainability of engagement (Morandini et al., 2023). Ferbrache advises companies to be proactive in the face of AI-powered job change. This would entail mapping abilities to gaps, allowing workers to learn AI skills, and offering targeted training. It's "critical to keeping workers motivated and feeling positive, and remaining mentally healthy, as we work towards helping build up a workforce that's not just good for today's labor market." Technical and soft skills training enables staff to use digital apps in a human-centered way, which is essential for healthcare communication and relationship-building.

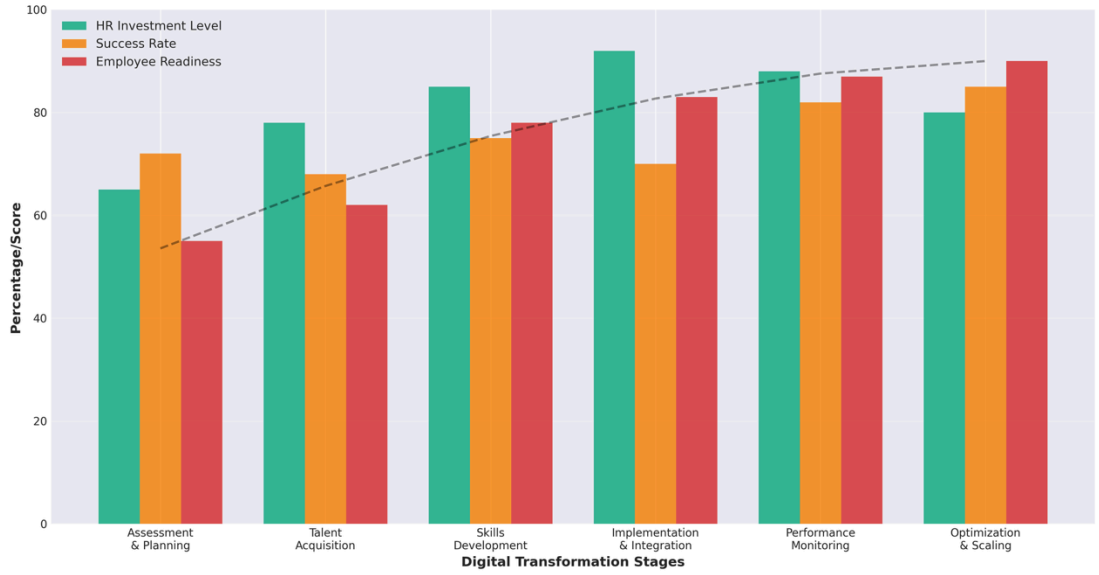

Figure 5: HR Digital Transformation Journey in Healthcare Marketing.

Source: Authors' elaboration.

The diagram displays the journey through six key stages of digital transformation from an HR perspective, showing how HR investment correlates with success rates and how employees are ready at each stage. According to the data, employee preparedness increases significantly, underscoring the need for long-term HR support and training investments.

5.2. Social Media Marketing Dynamics: Facebook and YouTube

5.2.1 Platform-Specific Characteristics and User Demographics

Facebook and YouTube differ in ways that affect their effectiveness in public health marketing (S et al., 2025). Social media has become a significant platform for promoting health, offering the potential for rapid dissemination of health information, supporting community involvement, and driving behavior change. Facebook and YouTube, for example, allow health organizations to communicate more closely with the public in real time about new information and education. Multimedia formats enrich content and can increase information capacity, while online communities provide support for people with chronic diseases or mental disorders. Interactive components include live sessions and influencer collaborations that can effectively contribute to health campaigns, while addressing misinformation, privacy issues, and ethical considerations to maximize impact. To develop content strategically, it is important to understand user behavior on that specific platform (Lim et al., 2022). College students browsed their Facebook news feeds for health information from friends, news outlets, and ads. Some sought knowledge on specific

topics by joining groups or following relevant sites. YouTube was a learning resource and the first place people went for help after Google. Users said the video format was easy to understand and that they could identify accurate information by cross-checking many videos, believing the presenter was honest and sympathetic, or instantly recognizing the videos' reliability. These platform-specific behaviors suggest that health organizations should adapt their content strategies to how consumers use each platform.

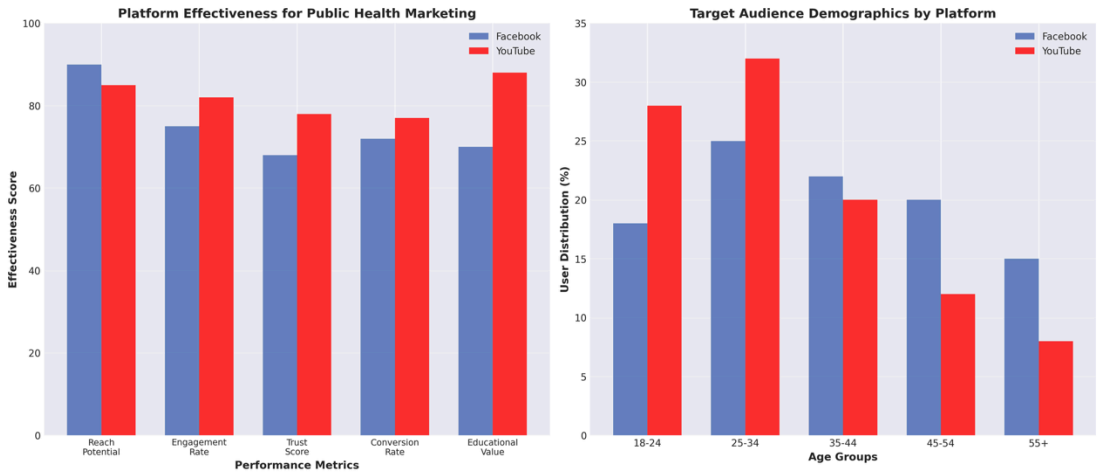

Figure 6: Platform Effectiveness for Public Health Marketing

and Target Audience Demographics. Source: Authors' elaboration.

The left plot compares effectiveness scores across metrics: YouTube has the highest educational value and engagement rates, while Facebook is strongest in reach potential. The right side shows apparent demographic differences: YouTube attracts much younger audiences (18-34), while Facebook is used across all age ranges, offering insights for targeted advertising.

5.2.2 Content Strategies and Engagement Metrics

Successful content strategies should take into account platform affordances and audience expectations (Omeish et al., 2024). Influencers on social media are increasingly becoming key agents of attitude and behavior change, with binge-watching their content driving their impact. Awareness, curiosity, trust, and engagement had the greatest impact, underscoring the significance of influencers in early motivational activation. Additionally, material quality increased behavioral intentions by 1) influencing agent judgments about suggestion viability and 2) increasing recommendation persuasiveness. Genuine, high-quality material that aligns with audience values and interests encourages long-term engagement and behavior change.

Measuring engagement based on likes and shares just doesn't cut it (Ao et al., 2023). Meta-analyses show that homophily, knowledge, trustworthiness, credibility, product congruence, and entertainment value moderate to strongly affect customer engagement and purchase intention. The dimensions are more closely associated with entertainment and purchase intention than with other qualities. The study emphasizes the need for interdisciplinary content techniques that balance learning outcomes and enjoyment to enhance engagement and message retention.

5.2.3 Influencer Credibility and Trust Mechanisms

Credibility is the foundation of influencer marketing in health (Bishnoi & Anand, 2025). Influencer credibility and content authenticity affect brand attitude/purchase intention, but engagement quality predicts willingness to buy the most. Influencer traits. The fact that trustworthiness and real audience interaction were used to select influencers, rather than platform choice, implies that relationship quality matters more than network preference for ad placement. This is especially critical for health organizations seeking to collaborate with trustworthy voices who can deliver professional, healthy messages and build audience confidence.

The adoption of trust-building mechanisms in digital health communications needs to be strategically planned, considering a range of dimensions (AlFarraj et al., 2021). Trustworthiness, attractiveness, and expertise increase purchase intention through cognitive and affective online interaction, according to an influencer credibility study. Health readers prioritize expertise and professional certifications when assessing the value of health information. Videos published by HCPs outperformed those uploaded by individual users, emphasizing the importance of professional status in health communication. Culture moderates the relationship between influencer attributes and audience outcomes, as audiences have different credibility dimensions shaped by cultural values and health literacy levels.

5.2.4 Misinformation Challenges and Ethical Considerations

The sharing of health misinformation on social media platforms is deeply problematic (Gruzd et al., 2023). One anti-vaccine video persists on Facebook and YouTube despite calls to delete it. A study on information-sharing pathways demonstrates that users can find a vaccine-related video on Facebook and tap it in the app menu to open YouTube, where the platform automatically recommends additional videos. With these apparent gaps in platform-led efforts to mitigate misinformation, public health authorities must launch highly visible vaccination promotion campaigns on social media to preempt anti-vaccine disinformation.

The ethical concerns go beyond the management of misinformation to encompass privacy, consent, and professional boundaries (Kanchan & Gaidhane, 2023). Social media for public health offers pros and cons that should be considered. The American Medical Association's Professionalism in Social Media Use policy and the American College of Physicians and the Federation of State Medical Boards' Online Medical Professionalism provide guidelines for

web-based communication for health care providers. Social media infractions represent a missed opportunity to foster lawful norms. Patients need clear policies to defend their interests.

5.3 Workforce Development for Digital Health Communication

5.3.1 Digital Literacy and Skills Training Requirements

Digital literacy encompasses competence, a strategic component, and an ethical component (Morandini et al., 2023). The effects of AI transformation on the worker skill mix raise concerns. AI is replacing work and reducing cognitive load across all fields, enhancing productivity. However, employment displacement is causing concern. To successfully adapt to change, firms should adopt new working methods and create a framework for worker upskilling or reskilling. Digital marketing specialists can leverage technology while maintaining the human touch needed in healthcare communications, thanks to their advanced technical and soft communication skills.

The training-oriented program should address competency gaps (Kazanskaia, 2025). Leadership, communication, and stakeholder involvement help manage resistance and drive the shift toward digital ownership, according to the analysis. Healthcare examples highlight how low-resource organizations can apply practical methods to increase user acceptance, digital literacy, and sustainability. They help firms develop digital transformation roadmaps grounded in theory and practice. Experiential learning, coaching, and job development offer real-world skills.

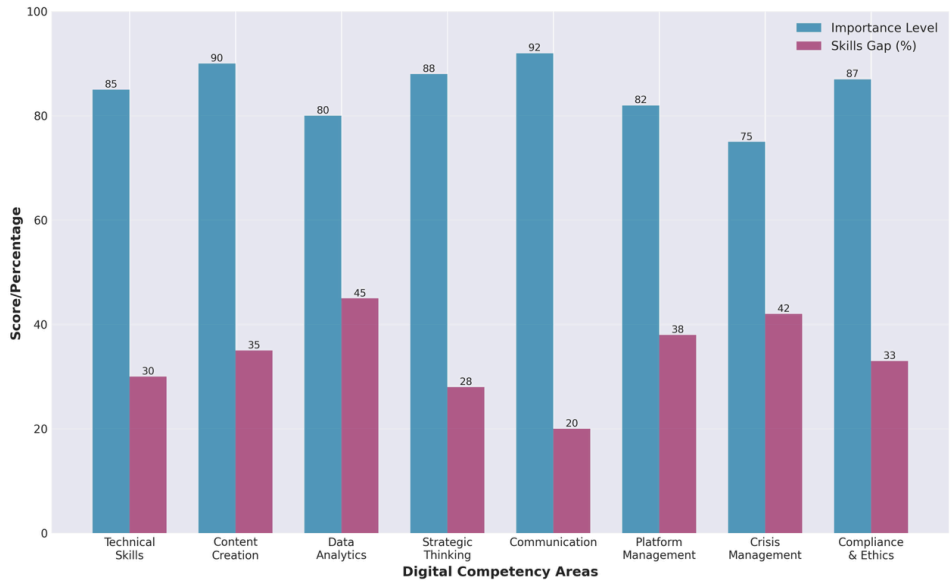

Figure 7: Digital Competency Framework

for Public Health Marketing Professionals. Source: Authors' elaboration.

This figure highlights eight priority competency areas, detailing their importance and current skill gaps. The most significant gaps are between data analytics and crisis management (45% and 42%, respectively), and the highest importance lies in communication demands (92%), a focus area with a considerable gap (20%). This identifies areas for investment in training.

5.3.2 Building Internal Marketing Capabilities

Strategic organizational design instructs corporations on how to build in-house marketing expertise, yet it still lags. Investigating AI affordances for HRM that enable data protection from collection through analysis helps organizations advance technology while meeting ethical and legal obligations. AI can eliminate bias and make precise recommendations while challenging key assumptions about processes and outcomes. Effective digital marketing requires organizations to balance technical features with human actors, goals, and tasks (Trocin et al., 2021).

Knowledge transfer sustains capability growth. Both multinational firms standardize processes; well-designed documentation systems serve both compliance tools and strategic instruments for workforce development and knowledge transfer. Documentation techniques in other industries show that streamlined systems, when combined with learning and development systems, can reduce ramp-up periods, enhance learning agility, and reduce staff turnover. Formalizing tacit knowledge, adapting to different cultures, and using technology, including AI, enable continual organizational learning and capability development (Okuboye, 2023).

5.3.3 Upskilling and Reskilling Strategies

Planned processes for workforce development align current needs with strategic, long-term outcomes (Khoa et al., 2024). While AI implementation in HR recruitment is still in its early stages, companies that have implemented AI-powered technology in their HR operations have seen improvements in candidate screening, job-candidate matching, and time-to-hire. AI's specific skill needs, fears of displacement by computers, and the trade-offs between automation and humanization in recruiting are important challenges. The results show that technology-driven change requires focused interventions, worker reskilling, and ethical values.Continuous learning cultures support adaptive capacity (Rožman et al., 2022). AI-supported teams and employees boost corporate engagement and performance, research shows. The multifaceted constructs include artificial intelligence's role in hiring and retaining personnel, training and development, company culture, and leadership. When combined, these aspects reduce effort and boost employee engagement, improving performance. Companies that invest in lifelong learning are better able to adapt to changing technology and market dynamics.

5.3.4 Performance Measurement and Retention

Performance measurement systems include both individual and organizational-level performance (McCartney & Fu, 2022). HR technology provides HR analytics that improve

organizational performance and support evidence-based management. The chain mediation approach, which links HR technology to HR analytics and evidence-based management, suggests that investing in the right technology and analytics can improve results. This shows that data-driven workforce management improves employee and corporate performance.

It becomes evident that retention efforts need to encompass various aspects of employee satisfaction (Urme, 2023). Comprehensive employee retention strategies include thorough recruitment and selection, training and development, performance tracking and feedback, competitive compensation and benefits, and a healthy workplace culture. The results show how important these strategies are for enhancing employee retention, boosting output, reducing turnover, and creating a more engaged and dedicated team. Effective personnel management techniques create inviting, motivating workplaces that encourage employees to contribute over the long term and pursue their professional goals.

5.4 Public Dental Health Marketing: Applications and Case Studies

5.4.1 Current State of Digital Dental Health Marketing

The digital transformation of dental care has accelerated significantly over the last couple of years (Ostojić et al., 2025). Dental tourism customer satisfaction and digital marketing indicate that online reviews and website quality boost trust and satisfaction. Conversely, social media and cross-selling have a moderate impact. In a competitive sector, digital marketing is crucial. Vehicle pricing transparency dramatically affected customer perceptions of service purchases. Recent findings emphasize the need for multi-touch engagements in dental offices, from patient awareness to post-treatment retention.

The use of social media for oral health promotion has revealed varying degrees of engagement and efficacy (Albakri et al., 2025). Half of university students used Facebook to search for dentists, according to research. Most popular apps include WhatsApp and YouTube. Use of social media for oral health information was driven by easy access and the difficulty of consulting specialists. These findings imply that social media and traditional oral health communication support each other and that professional participation is needed to assure information quality, accuracy, and reliability.

5.4.2 Professional Credibility and Patient Engagement

Preserving professional authenticity in attracting audience attention represents an ongoing challenge (Meira et al., 2021). Orthodontists' social media posts showed that certain topics strongly influence potential patients' perceptions of orthodontists' credibility and likelihood of becoming patients. Participants rated credibility mainly on the basis of "being a teacher" and "before and after treatment". But "social relationship" and "family relationship" were less popular. Dental traction, mini-implant mechanics, before-and-after treatment, cosmetic brackets, metallic brackets, and clear aligners had statistically significant differences in mean perceived professional credibility across audience groups.

Appropriate strategies for patient engagement should strike the right balance between education and entertainment (Çapan, 2021). YouTube is a popular source of information on dental treatment, but the quality of its content varies widely. The overall usefulness of space maintainer content was rated on a 9-point scale at 4.4 ± 1.5, with content uploaded by HCPs being more useful than that uploaded by nonprofessional users. Videos, however, were not informative enough about side effects and appliance types, indicating a lack of comprehensiveness. These results underscore the importance of including dentists in content development and the urgent need to reach patients and families seeking instructions on treatment modalities.

5.3 Campaign Effectiveness and ROI

The return on investment of digital dental health marketing needs to be analyzed within appropriate, broad frameworks (Ostojić et al., 2025). The model of the effects on customer trust indicates that Online Reviews and Website Quality have the strongest positive influence, whereas Social Media presence has a significant positive influence. Cross-demographic and cross-geographic differences, as well as the varying impacts of upsell/cross-sell and price transparency on customer perception, are evident. This insight empowers dental practices to allocate marketing resources more effectively and target investments to specific channels and tactics to yield quantifiable improvements.

Synergistic effects are observed in cross-platform campaigns when appropriately coordinated (Shauly et al., 2023). On social media, healthcare providers and patients share aesthetic content more than scientific content across platforms. You can target specific age groups on Instagram, Snapchat, and TikTok for kids, and on Facebook and YouTube for adults. Effective communications and increasingly significant platforms that cater to the audience's age are needed. Based on this information, coordinated campaigns across platforms target different patient populations with targeted messaging.

5.4 Integration with Traditional Health Promotion

It is necessary that digital marketing strategies are complementary, but not limited to, traditional modalities of health promotion (Kanchan & Gaidhane, 2023). Social media has both positive and negative effects on public health and should be used with caution alongside other communication methods. The Internet and social media can be used to provide health information for disease surveillance, teaching, research, behavioral modification, policy influence, and professional development. However, misinformation, privacy, and ethical considerations require integrating digital and non-digital activities to maximize public health impact.

Digitally augmented services that increase capacity at the community level (Salve et al., 2023). Improving healthcare depends on locals treating people. increase community program efficacy. Through surveillance, community sensitization, and assistance to vulnerable groups, urban community health professionals have helped combat COVID-19. Although their employment had some excellent qualities, such as training and PPE, large gaps left workers vulnerable to infection and stress. Digital tools helped health professionals manage escalating transportation costs and workloads, ensuring they had enough medications before lockdowns. These vignettes

show that digital approaches can improve community health practices when backed by training, resources, and organizational support, thereby establishing scalable, integrated health promotion systems.

5.5 Global Strategies and Future Directions

5.5.1 Cross-Cultural Considerations in Digital Health Marketing

There are important cultural differences to consider when rolling out global digital health marketing campaigns (Omeish et al., 2024). A cross-cultural study of social media influencer marketing found that usage intensity positively moderates mediated interactions, strengthening social media effects among heavy users. The quantitative analysis confirms that influencers are digital opinion leaders, and destinations and health organizations should invest in influencer campaigns to connect with and inspire audiences while monitoring content quality. Best platform and demographic targeting intelligence comes from performance-oriented monitoring. However, cultural differences might affect the effectiveness of specific techniques, requiring adjustments to avoid failure in one nation and success in another.

Regulatory frameworks and technological infrastructure create varying opportunities and constraints (Al-Alawi et al., 2023). IT infrastructure, technical support, digital skills or talent, organizational culture, employee resistance, and top management support significantly impact HR digital transformation outcomes. The corporate and public sectors in different countries examined these elements, showing significant differences in preparation and implementation success. Unlike developed European nations with mature internet access infrastructure, many developing countries have struggled to implement e-HRM systems. Therefore, global strategies must adopt a localized approach that accounts for local resources and capabilities.

5.5.2 Emerging Technologies and AI Integration

AI is redefining digital marketing in the health sector (Ahmed, 2025). Today's AI and digital marketing have transformed company communication, especially in healthcare retail. AI-generated content, predictive analytics, and automated consumer prompting significantly increased social media reach. Related topics include disinformation, algorithmic bias, data privacy, and ethical dilemmas in hyper-targeted advertising. Companies must also use AI to improve client engagement while navigating these difficulties.

Emerging platforms and technologies create new opportunities (Paul et al., 2024). The widespread digitalization of society and consumer behavior has had an unparalleled impact on all business sectors. Integrating Internet of Things, social media, mobile apps, AI, AR/VR, and metaverse technology will accelerate transformation. In many healthcare marketing fields, similar tools and services are available, but successful design and development often require an understanding of technology capabilities, organizational comfort levels, and audience needs. From studying how immersive technologies and conversational AI might extend and deepen health messaging to reviewing some of the most intriguing attempts at personalized content distribution, numerous forward-thinking firms are pushing the envelope.

5.5.3 Sustainability and Ethical Frameworks

Sustainable digital marketing focuses on effective yet socially responsible activities (Kulkov et al., 2024). An AI-driven study on sustainable development found that AI's involvement in sustainability is mostly discussed at the organizational, technical, and process levels. The institutional dimension studies how organizations and industrial sectors integrate AI, reduce barriers to its use, and examine relationships among actors. Strategic coherence, infrastructure investment, change-centered leadership, and continual improvement are key to successful AI implementation in sustainability. Any organization can use AI to advance social, environmental, economic, and sustainable development goals by focusing on these areas.

Marketing practices for digital health should be guided by ethical frameworks (Liu et al., 2023). Responsible AI principles help healthcare firms maximize the success of their social media marketing, according to digital health research. Transparency, preservation, and control over privacy, fairness procedures, and accountability may impact organizational and user trust, according to a secondary analysis of 25 semi-structured, in-depth interviews with healthcare professionals. Institutional policies should address data privacy, algorithmic bias, and informed consent for digital markets. Professional and organizational bodies should establish ethical positions on equitable access to promote public health goals without compromising community health or the ethics of healthcare professionals.

5.5.4 Research Gaps and Future Research Agenda

Despite many triumphs, research on how HR should support a successful digital marketing plan for dental health remains limited. There is very little empirical research on healthcare marketing staff competencies, digital literacy training strategies, and organizational processes for integrated digital marketing. Few cross-cultural studies have examined how cultural values, legal systems, and technological infrastructure affect platform and strategy choices across countries. Future research should explore the long-term effects of digital marketing capabilities on company performance.

Further research is needed to examine the interaction between new technologies and HRM (Budhwar et al., 2023). The introduction of advanced AI technologies creates continuing uncertainty around employment, stakeholder relationships, business models, and research methodologies. Studies must examine whether these technologies result in job displacement or creation, and if they shift human labor toward new, potentially more meaningful work. Future research will examine the extent to which automation and the human touch can be effectively balanced in healthcare marketing within organizations, how the ethics of emerging technologies should be addressed as they continue to evolve, and how the benefits of digital transformation are distributed across diverse workforce groups. Such comparative research on successful adoption across different organizational contexts would also be informative for practitioners working through their digital transformation pathways. Summary in Tables1, 2 and 3

Table 1: Comparative Analysis of Facebook and YouTube for Public Dental Health Marketing

Dimension	Facebook	YouTube	Strategic Implications
Primary Strength	Community building and peer interaction (S et al., 2025)	Educational content delivery and long-form video (Lim et al., 2022)	Use Facebook for community engagement; YouTube for detailed educational content
Target Demographics	Broad age range (25-54 primary) (Shauly et al., 2023)	Younger audiences (18-34 predominant) (Shauly et al., 2023)	Tailor content complexity and style to platform demographics
Content Format	Short posts, images, live streaming (S et al., 2025)	Video tutorials, demonstrations, testimonials (Çapan, 2021)	Invest in video production for YouTube; diversify content types for Facebook
Engagement Style	Reactive (likes, comments, shares) (Ao et al., 2023)	Active viewing and learning (Rana Saeed Al-Maroof, 2021)	Design interactive Facebook campaigns; focus on informative YouTube content
Credibility Factors	Peer reviews and recommendations (Ostojić et al., 2025)	Professional credentials and expertise (AlFarraj et al., 2021)	Emphasize social proof on Facebook; highlight qualifications on YouTube
Misinformation Risk	High due to rapid sharing (Gruzd et al., 2023)	Moderate but persistent through recommendations (Gruzd et al., 2023)	Implement active monitoring and counter-messaging strategies on both platforms
ROI Measurement	Direct engagement metrics, conversion tracking (Ostojić et al., 2025)	View duration, subscriber growth, and educational impact (Chan et al., 2024)	Develop platform-specific KPIs aligned with campaign objectives

Source: Authors' elaboration.

Table 2: Digital Competency Requirements for Healthcare Marketing Professionals

Competency Domain	Key Skills	Training Approaches	Assessment Methods
Technical Proficiency	Platform management, content creation tools, analytics software (Morandini et al., 2023)	Hands-on workshops, certification programs, vendor training (Kazanskaia, 2025)	Skills demonstrations, portfolio reviews, and platform analytics
Strategic Thinking	Campaign planning, audience segmentation, and competitive analysis (Okatta et al., 2024)	Case studies, strategic planning exercises, mentorship (Charles et al., 2024)	Strategic plans, campaign proposals, performance analyses
Data Analytics	Metrics interpretation, ROI calculation, predictive modeling (McCartney & Fu, 2022)	Data analysis courses, statistical training, software tutorials (Okatta et al., 2024)	Analysis reports, dashboard creation, insight presentations
Content Development	Writing, video production, graphic design, storytelling (Omeish et al., 2024)	Creative workshops, production training, peer review (Okuboye, 2023)	Content portfolios, engagement metrics, quality assessments
Crisis Management	Response protocols, reputation management, stakeholder communication (Kanchan & Gaidhane, 2023)	Simulation exercises, case analysis, response planning (Charles et al., 2024)	Response time metrics, stakeholder feedback, outcome analysis
Ethical Compliance	Privacy regulations, professional standards, consent procedures (Liu et al., 2023)	Legal training, ethics workshops, policy development (Kanchan & Gaidhane, 2023)	Compliance audits, policy adherence, ethical decision-making scenarios

Source: Authors' elaboration.

Table 3: HR Strategies for Digital Marketing Workforce Development

HR Strategy Component	Implementation Approaches	Success Indicators	Key Citations
Talent Acquisition	AI-powered screening, competency-based hiring, cultural fit assessment	Time-to-hire reduction, quality-of-hire metrics, and retention rates	(Albassam, 2023; Tanantong & Wongras, 2024)
Onboarding & Integration	Structured programs, mentorship pairing, progressive responsibility assignment	Productivity ramp time, early retention, competency achievement	(Adeola Olusola Ajayi-Nifise et al., 2024; Kazanskaia, 2025; Okuboye, 2023)
Skills Development	Blended learning, micro-credentials, and experiential projects	Skill acquisition rates, performance improvement, and certification completion	(Maja Roman, 2022; Morandini et al., 2023)
Performance Management	OKR frameworks, 360-degree feedback, data-driven evaluations	Goal achievement, engagement scores, productivity metrics	(Malik et al., 2023; McCartney & Fu, 2022; Okatta et al., 2024)
Retention & Engagement	Career pathing, recognition programs, and work-life balance	Turnover rates, satisfaction scores, and internal mobility	(Natalia Samoliuk, 2022; Urme, 2023)
Change Management	Communication plans, stakeholder engagement, and continuous feedback	Adoption rates, resistance levels, and transformation success	(Charles et al., 2024; Kazanskaia, 2025)

Source: Authors' elaboration.

6. CONCLUSIONS

Human resource strategies in public dental health should prioritize developing a specialized workforce adept at using Facebook and YouTube through digital literacy training, and emphasize producing engaging, evidence-based video content (e.g., educational YouTube videos and Facebook Live question-and-answer sessions). To optimize impact, HR should establish structured content schedules and educate personnel on patient engagement strategies to foster trust and increase visibility. Moreover, it is essential to establish explicit social media rules that ensure regulatory compliance (e.g., HIPAA), uphold professionalism, and support the use of these platforms for public health advocacy and community engagement.

Principal human resources initiatives are for (1) Training and Development: Enhancing the competencies of dental personnel in video creation, social media analytics, and digital communication technologies to proficiently convey public health messages. (2) Content Strategy and Compliance: Formulating protocols for content creation and dissemination, guaranteeing that all material is precise, accessible, and adheres to health rules. (3) Performance Metrics: Establishing KPIs (e.g., engagement rates, reach) to assess the efficacy of social media initiatives, promoting a culture of ongoing enhancement in patient connection.

This chapter explains the strategic fit of Human Resource Management (HRM) in Facebook and YouTube digital marketing for public dental health, and identifies the competencies and organizational readiness required. A bibliometric study (2021–2025) and a systematic assessment of pivotal works linking health management and organizational strategy to digital technology, using keyword co-occurrence and citation analyses of over 50 articles. Academic interest peaked in 2023. Data analytics and crisis management had talent gaps of 45% and 42%, respectively. YouTube improves educational retention, whereas Facebook builds community. Eight critical digital abilities were identified, and employee readiness positively correlated with digital transformation stages. This study introduces the first 'Digital Competency Framework' for oral health professionals, linking ‘soft' HR tactics (culture, engagement) to 'hard' digital campaign KPIs in public health. This study applies Source Credibility Theory and the Technology Acceptance Model to HRM, incorporating organizational culture into the latter. This paper provides guidelines for revamping recruitment, creating target-oriented upskilling curricula, and using AI-powered HR analytics to support resource allocation and decision-making.

The current systematic literature review shows that effective public oral health digital marketing on Facebook and YouTube depends on the sound integration of human resource management with platform-specific capture marketing. For HR, success in Digital Transformation depends on a considered approach to talent hiring and training, change management, and continuous staff engagement. Competence investment in a business, and the development of such internal competence, is essential, as is the production of external communication you will use to achieve your marketing ambitions- leave this communication (often described as the 'platform'), and independent opportunities seem to prefer it. The evidence collated from 50+ reports suggests that Facebook is strongest in community and peer interaction, whilst YouTube offers the best platform for delivering educational content / long-form engagement. However, a platform's

performance varies widely across target segments, content formats, and cultural factors; local operations must be developed while preserving global strategic consistency. The emergence of new technologies, specifically artificial intelligence, will create opportunities to improve marketing effectiveness and raise ethical dilemmas around privacy, bias, and professional boundaries that need to be navigated prudently.

Technical skills, strategy development, data analysis and interpretation, content production, crisis management, and ethics must be considered in HR. However, skills shortages in data analytics (45%) and crisis management (42%) highlight possibilities for targeted training investment and formal workforce development programs. Future research may examine the long-term consequences of HR methods, cross-cultural disparities in implementation, and the impact of new technology on advertising and staff in digital health communication markets. The digital revolution in public oral health has revealed gaps in the HRM literature, including a dearth of studies on skills and integrated training programs for professionals managing multi-platform campaigns on Facebook and YouTube. The lack of standards is compounded by a limited understanding of how organizational culture and employee commitment promote the implementation of global digital projects, as well as the HR strategies needed to manage geographically distributed, cross-cultural teams. No studies have examined how to use HR analytics to optimize resource allocation for maximum health impact, and social media staff lack standards and protections against mental stress and privacy concerns, underscoring the need for a comprehensive study.

Human Resource strategies for leveraging Facebook and YouTube in public dental health digital marketing should prioritize developing a digitally proficient, compliance-aware, and patient-focused staff. The HR department should begin by identifying and hiring personnel with dual expertise in dental hygiene and digital storytelling, then offer specialized training in creating high-quality instructional video content for YouTube and interactive, community-oriented content for Facebook. An essential HR duty is to formulate and implement stringent social media policies that comply with HIPAA and other patient privacy regulations, ensuring employees understand the risks of disclosing protected health information (PHI) while promoting engagement through behind-the-scenes insights, patient testimonials, and staff highlights. To enhance the effectiveness of these platforms, HR should establish incentive programs that motivate the team to produce patient-centric content, such as Q&A sessions addressing prevalent dental anxieties or educational videos on preventive care, thereby humanizing the practice, fostering community trust, and augmenting patient engagement. By providing ongoing, up-to-date training on contemporary social media trends and analytics, HR enables the dental team to use digital tools effectively to target specific demographics, thereby turning social media from a simple posting platform into a strategic resource for public health outreach and patient acquisition.

7. RECOMMENDATION FOR FURTHER STUDIES

This paper presents a pertinent and timely analysis of the use of Facebook and YouTube in dental public health human resource initiatives. The background section provides context; nonetheless, the literature review requires a stronger theoretical foundation. The amalgamation of digital HR strategy frameworks, health communication theory, and digital engagement models is predominantly descriptive rather than analytical. To enhance this domain, it incorporates recent peer-reviewed literature from the past five years. The chapter presents essential concepts about digital engagement and healthcare workforce planning. It illustrates modern transitions towards digital communication in public health settings. The analysis could be enhanced by a clearer delineation of emerging trends, such as digital health transformation, AI-driven interactions, and evolving patient expectations, for further studies. It appropriately emphasizes digital opportunity and creativity. Nonetheless, risks, limitations, and implementation obstacles garner relatively little focus.

To enhance equilibrium by the following: 1. Designate a specific subsection for limits and operational impediments; 2. Assess workforce competency deficiencies and training ramifications. The chapter is primarily aimed at healthcare managers, HR professionals, and academic audiences interested in digital transformation. A slight adjustment in tone and conceptual structure would enhance its appeal to scholarly audiences while preserving its relevance to practitioners. There is a slight overemphasis on platform functionality and a corresponding underemphasis on strategic HR integration and governance systems. Reconceptualizing social media technologies as integral pieces of a structured HR strategy, rather than as primary components, will enhance conceptual clarity.

The chapter is conceptually pertinent and practically focused; however, several aspects could be elaborated to enhance comprehensiveness as follows: 1. Performance Metrics and Evaluation Frameworks – Incorporating KPIs (quantifiable indicators) to evaluate digital HR efficacy would enhance managerial relevance; and 2. Risk and Crisis Management – Tackling misinformation, reputational threats, and digital backlash would offer strategic equilibrium.

These enhancements would render the chapter more thorough without necessitating a significant redesign: 1) Insufficient theoretical foundation, 2) Insufficient empirical foundation, 3) References might be more contemporary and varied, 4) Pertinent and contemporary subject matter, 5) Robust managerial approach, 6) Distinct practical usefulness, 7) Conformity with the discourse on digital transformation in healthcare.
This chapter examines a pertinent and strategically significant topic that connects human resource management and digital engagement in dentistry and public health. The practical emphasis and applied perspective are evident strengths that align effectively with the objectives of the edited volume. In further studies, it is suggested to make slight modifications to improve its quality further: 1. Enhance the theoretical foundation to augment academic rigor. 2. Incorporate enhanced analytical synthesis in addition to mere descriptive discourse. 3. Present a more equitable perspective by discussing dangers and ethical implications. 4. Elucidate

managerial consequences by quantifiable metrics or systematic recommendations. The chapter possesses significant promise and, with targeted improvement, can contribute meaningfully to the book.

The organization is coherent but might be enhanced by: 1. Incorporating more explicit transitions between sections. Minimizing redundancy. 3. Integrating a conceptual framework illustration. 4. Concluding with a succinct assessment of strategic ramifications. These enhancements would improve narrative coherence and the precision of argumentation. Incorporation of literature on digital health transformation. 3. Scholarship in strategic human resource management and digital governance.

To further enhance the chapter, the systematic methodological criteria used for article selection are crucial for a brief discussion of potential limitations of the bibliometric approach, thereby improving transparency and rigor. Additionally, illustrating the framework with a practical case example could strengthen its relevance for implementation in real-world public dental health settings. This chapter makes a significant contribution to the literature on HRM-driven digital marketing strategies in public dental health. It is recommended that the work take an interdisciplinary approach and be of interest to scholars, health administrators, and policymakers involved in digital health promotion.

Questionnaire surveys and interviews are recommended for future studies to recruit respondents for comprehensive research and could help validate this chapter.

REFERENCES

Abu Hmeidan, T. M., Masoud, E., Omeish, F., Abuhashesh, M., & Alshurideh, M. T. (2024). Investigating Firm-Generated Content's Influence on Digital Marketing Effectiveness in Private Hospitals—A Jordanian Perspective. In *Sustainable Horizons for Business, Education, and Technology: Interdisciplinary Insights* (pp. 241–257). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-97-2981-4_18

Acosta, J. M., Detsomboonrat, P., Pisarnturakit, P. P., & Urwannachotima, N. (2025). The use of social media on enhancing dental care and practice among dental professionals: cross-sectional survey study. *JMIR Formative Research*, *9*(1), e66121. Doi:10.2196/66121

Ajwa, N. M. (2018). The impact of using social media networks on dental treatment marketing in Saudi Arabia: the practitioners and patient's perspectives. *Journal of oral health and dental science*.

Ajayi-Nifise, A. O., Odeyemi, O., Mhlongo, N. Z., Ibeh, C. V., Elufioye, O. A., & Falaiye, T. (2024). Digital transformation in banking: The HR perspective on managing change and

cultivating digital talent. *International Journal of Science and Research Archive*, *11*(1), 1452–1459. https://doi.org/10.30574/ijsra.2024.11.1.0237

Ahmed, E. M. (2025). Optimizing Social Media Marketing Strategy of Healthcare Industry in the Era of AI: The Case of CVS Health. *International Journal of Scientific and Management Research*, *08*(05), 212–232. https://doi.org/10.37502/IJSMR.2025.8517

Al-Alawi, A. I., Messaadia, M., Mehrotra, A., Sanosi, S. K., Elias, H., & Althawadi, A. H. (2023). Digital transformation adoption in human resources management during COVID-19. *Arab Gulf Journal of Scientific Research*, *41*(4), 446–461. https://doi.org/10.1108/AGJSR-05-2022-0069

Albakri, I., Mohaidat, R., Khader, Y., Omari, W. A., Horani, Z., Alzghoul, M., & Alshatrat, S. (2025). The Role of Social Media on Oral Health Promotion among Youth in Jordan. *Jordan Journal of Dentistry*, *2*(3). https://doi.org/10.14525/JJD.v2i3.04

Albassam, W. A. (2023). The Power of Artificial Intelligence in Recruitment: An Analytical Review of Current AI-Based Recruitment Strategies. *Tutor Treinamento e Desenvolvimento*. https://doi.org/10.26668/businessreview/2023.v8i6.2089

AlFarraj, O., Alalwan, A. A., Obeidat, Z. M., Baabdullah, A., Aldmour, R., & Al-Haddad, S. (2021). Examining the impact of influencers' credibility dimensions: Attractiveness, trustworthiness and expertise on the purchase intention in the aesthetic dermatology industry. *Review of International Business and Strategy*, *31*(3), 355–374. https://doi.org/10.1108/RIBS-07-2020-0089

Alsuyayfi, S., Alsulimani, N., Aldhergham, A., Alahmary, A., & Alkhateeb, A. (2025). Social media and health promotion. *Nursing & Healthcare International Journal*. https://doi.org/10.23880/nhij-16000337

Anshasi, R. J., Alsubahi, N., Alhusein, A. A., Khassawneh, A. A. L., Alrawad, M., & Alsyouf, A. (2025). Evolving perspectives in dental marketing: A study of Jordanian dentists' attitudes towards advertising and practice promotion. *Heliyon*, *11*(1). https://www.cell.com/heliyon/fulltext/S2405-8440(24)17174-5

Ao, L., Bansal, R., Pruthi, N., Khaskheli, M. B., Ao, L., Bansal, R., Pruthi, N., & Khaskheli, M. B. (2023). Impact of Social Media Influencers on Customer Engagement and Purchase Intention: A Meta-Analysis. *Sustainability*, *15*(3). https://doi.org/10.3390/su15032744

Basnet, R. (2025). Healthcare marketing strategies: traditional techniques, trends of today and technology for tomorrow. *National Open College*, 24. DOI: https://doi.org/10.5281/zenodo.15365544

Bishnoi, R., & Anand, M. (2025). IMPACT OF INFLUENCER MARKETING IN CONTEXT OF INDIA. *International Journal of Research in Commerce and Management Studies*, *07*(03), 593–613. https://doi.org/10.38193/IJRCMS.2025.7348

Budhwar, P., Chowdhury, S., Wood, G., Aguinis, H., Bamber, G. J., Beltran, J. R., ... & Varma, A. (2023). Human resource management in the age of generative artificial intelligence: Perspectives and research directions on ChatGPT. *Human Resource Management Journal*, *33*(3), 606–,659. https://doi.org/10.1111/1748-8583.12524

Çapan, B. Ş. (2021). YouTube as a source of information on space maintainers for parents and patients. *PLOS ONE*, *16*(2), e0246431. https://doi.org/10.1371/journal.pone.0246431

Chan, G. M. L., Maglinte, B. P., & Locayon, R. J. (2024). A Cross-sectional Survey on Financial Literacy and Financial Well-being of Healthcare Workers in a Tertiary Hospital in Cebu. *Philippine Journal of Internal Medicine*, *62*(4), 215–229. Scopus. https://doi.org/10.65564/pjim.a6bf38ce89

Charles, O. I., Hamza, O., Eweje, A., Collins, A., Babatunde, G. O., & Ubamadu, B. C. (2024). Optimizing Organizational Change Management Strategies for Successful Digital Transformation and Process Improvement Initiatives. *International Journal of Management and Organizational Research*, *1*(2), 176–185. https://doi.org/10.54660/IJMOR.2024.3.1.176-185

Danabala, D., Dayanandan Narayanan, H. R., & Mohd-Dom, T. N. (2025). Social Media Use among Dental Clinics in Malaysia. *Malaysian Journal of Medicine & Health Sciences*, *21*.

Gruzd, A., Abul-Fottouh, D., Song, M. Y., & Saiphoo, A. (2023). From Facebook to YouTube: The Potential Exposure to COVID-19 Anti-Vaccine Videos on Social Media. *Social Media + Society*, *9*(1), 20563051221150403. https://doi.org/10.1177/20563051221150403

Hadi, S., Purnasari, E., Hidayat, R., Lukitaningsih, A., Kirana, K. C., & Siripipatthanakul, S. (2025, a). Challenges and Management Practices in Protecting Employee Personal Data in the Digital Era. In *Privacy and Security Management Practices for Organizations* (pp. 89–116). IGI Global Scientific Publishing. https://doi.org/10.4018/979-8-3693-9720-6.ch004

Hadi, S., Sulistyawati, E., Kirana, K. C., Dianti, C. A. I., Purnasari, E., & Ashakah, F. O. (2025, b). Abusive leadership and turnover intention: How employee and work engagement act as shields. *Asian Management and Business Review*, 74–89. https://doi.org/10.20885/AMBR.vol5.iss1.art6

Han, J., & Balabanis, G. (2024). Meta‐analysis of social media influencer impact: Key antecedents and theoretical foundations. *Psychology & Marketing*, *41*(2), 394–426. https://doi.org/10.1002/mar.21927

Jayasinghe, Y. A., Kanmodi, K. K., Jayasinghe, R. M., & Jayasinghe, R. D. (2024). Assessment of patterns and related factors in using social media platforms to access health and oral health information among Sri Lankan adults, with special emphasis on promoting oral health awareness. *BMC Public Health*, *24*(1), 1472. https://doi.org/10.1186/s12889-024-19008-5

Kanchan, S., & Gaidhane, A. (2023). Social Media Role and Its Impact on Public Health: A Narrative Review. *Cureus*. https://doi.org/10.7759/cureus.33737

Kavitha, C. (2025). The role of social media influencers in shaping consumer food preferences: A marketing perspective on brand engagement and purchase intentions. *Asian Journal of Multidimensional Research (AJMR)*. https://doi.org/10.5958/2278-4853.2025.00020.8

Kazanskaia, A. N. (2025). Implementing Digital Transformation: Change Management, Agile Approaches, and Capacity Building. *NEYA Global Journal of Non-Profit Studies*. https://doi.org/10.64357/neya-gjnps-gdtdgttrfm-06

Khoa, B. Q., Toại, N. V., Hien, D. T. T., Thuan, T. Q., Nguyen, H.-T., Anh, D. B. H., Ngoc, N. M., Giang, B. T., & Trang, N. T. H. (2024). Influential factors of Artificial Intelligence (AI) in the digital transformation of the human resources recruitment process sector in Vietnam. *International Journal of Multidisciplinary Research and Growth Evaluation*, *5*(6). https://doi.org/10.54660/.IJMRGE.2024.5.6.1181-1193

Kulkov, I., Kulkova, J., Rohrbeck, R., Menvielle, L., Kaartemo, V., & Makkonen, H. (2024). Artificial intelligence - driven sustainable development: Examining organizational, technical, and processing approaches to achieving global goals. *Sustainable Development*, *32*(3), 2253–2267. https://doi.org/10.1002/sd.2773

Lim, W. M., Rasul, T., Kumar, S., & Ala, M. (2022). Past, present, and future of customer engagement. *Journal of Business Research*, *140*, 439–458. https://doi.org/10.1016/j.jbusres.2021.11.014

Liu, R., Gupta, S., & Patel, P. (2023). The Application of the Principles of Responsible AI on Social Media Marketing for Digital Health. *Information Systems Frontiers*, *25*(6), 2275–2299. https://doi.org/10.1007/s10796-021-10191-z

Maja Roman, P. T., Dijana Oreki. (2022). Integrating artificial intelligence into a talent management model to increase the work engagement and performance of enterprises. *Frontiers Media*. https://doi.org/10.3389/fpsyg.2022.1014434

Malik, A., Budhwar, P., Mohan, H., & N. R., S. (2023). Employee experience –the missing link for engaging employees: Insights from an MNE's AI-based HR ecosystem. *Human Resource Management*, *62*(1), 97–115. https://doi.org/10.1002/hrm.22133

McCartney, S., & Fu, N. (2022). Bridging the gap: Why, how and when HR analytics can impact organizational performance. *Management Decision*, *60*(13), 25–47. https://doi.org/10.1108/MD-12-2020-1581

Megan S. C. Lim, T. A. M., Annika Molenaar, Linda Brennan, Mike Reid. (2022). Young Adults Use of Different Social Media Platforms for Health Information: Insights From Web-Based Conversations. *JMIR Publications*. https://doi.org/10.2196/23656

Meira, T. M., Prestes, J., Gasparello, G. G., Antelo, O. M., Pithon, M. M., & Tanaka, O. M. (2021). The effects of images posted to social media by orthodontists on public perception of professional credibility and willingness to become a client. *Progress in Orthodontics*, *22*(1), 7. https://doi.org/10.1186/s40510-021-00353-9

Milošević, K., & Katić, I. (2025). *Digital Transformation And Hr Technology – Integrating AI into Talent Acquisition And Retention Of Employees*. 117–122. https://doi.org/10.24867/FUTURE-BME-2024-014

Morandini, S., Fraboni, F., De Angelis, M., Puzzo, G., Giusino, D., & Pietrantoni, L. (2023). The Impact of Artificial Intelligence on Workers' Skills: Upskilling and Reskilling in Organisations. *Informing Science: The International Journal of an Emerging Transdiscipline*, *26*, 039–068. https://doi.org/10.28945/5078

Natalia Samoliuk, Yuriy Bilan, Halyna Mishchuk. (2022). Employer brand: Key values influencing the intention to join a company. *De Gruyter Open*. https://doi.org/10.2478/mmcks-2022-0004

Okatta, C. G., Ajayi, F. A., & Olawale, O. (2024). LEVERAGING HR ANALYTICS FOR STRATEGIC DECISION MAKING: OPPORTUNITIES AND CHALLENGES. *International Journal of Management & Entrepreneurship Research*, *6*(4), 1304–1325. https://doi.org/10.51594/ijmer.v6i4.1060

Okuboye, A. (2023). Knowledge Transfer and Skill Retention in Global BPM: Leveraging Process Documentation for Workforce Development. *Journal of Frontiers in Multidisciplinary Research*, *4*(1), 505–513. https://doi.org/10.54660/.JFMR.2023.4.1.505-513

Omeish, F., Sharabati, A.-A. A., Abuhashesh, M., Al-Haddad, S., Nasereddin, A. Y., Alghizzawi, M., & Badran, O. N. (2024). The role of social media influencers in shaping destination image and intention to visit Jordan: The moderating impact of social media usage intensity. *International Journal of Data and Network Science*, *8*(3), 1701–1714. https://doi.org/10.5267/j.ijdns.2024.2.017

Ostojić, B., Bajramović, D., & Cvjetković, M. (2025). The impact of digital marketing on customer satisfaction in dental tourism in Serbia. *Menadzment u Hotelijerstvu i Turizmu*, *13*(1), 131–144. https://doi.org/10.5937/menhottur2500008O

Paul, J., Ueno, A., Dennis, C., Alamanos, E., Curtis, L., Foroudi, P., Kacprzak, A., Kunz, W. H., Liu, J., Marvi, R., Nair, S. L. S., Ozdemir, O., Pantano, E., Papadopoulos, T., Petit, O., Tyagi, S., & Wirtz, J. (2024). Digital transformation: A multidisciplinary perspective and future research agenda. *International Journal of Consumer Studies*, *48*(2), e13015. https://doi.org/10.1111/ijcs.13015

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *bmj*, *372*.

Rana Saeed Al-Maroof, S. A. S., Kevin Ayoubi, Khadija Alhumaid, Ahmad Aburayya, Muhammad Turki Alshurideh, Raghad Alfaisal. (2021). The acceptance of social media video for knowledge acquisition, sharing and application: A com-parative study among YouTube users and TikTok Users for medical purposes. *Growing Science*. https://doi.org/10.5267/j.ijdns.2021.6.013

Rožman, M., Oreški, D., & Tominc, P. (2022). Integrating artificial intelligence into a talent management model to increase the work engagement and performance of enterprises. *Frontiers in Psychology*, *13*, 1014434. https://doi.org/10.3389/fpsyg.2022.1014434

Salman, F. D. (2024). Marketing Strategies in Dentistry: Navigating Social Media, Influencers, and Traditional Channels for Oral Health Promotion. In *Leveraging Digital Technology for Preventive Dentistry* (pp. 279-304). IGI Global. DOI: 10.4018/979-8-3693-3872-8.ch010

Salve, S., Raven, J., Das, P., Srinivasan, S., Khaled, A., Hayee, M., Olisenekwu, G., & Gooding, K. (2023). Community health workers and Covid-19: Cross-country evidence on their roles, experiences, challenges and adaptive strategies. *PLOS Global Public Health*, *3*(1), e0001447. https://doi.org/10.1371/journal.pgph.0001447

Saryldz, A. Y. (2025). TALENT MANAGEMENT IN HEALTHCARE WORKERS DURING THE HEALTH 4.0 PROCESS. *International Journal of Social Sciences and Management Review*. https://doi.org/10.37602/ijssmr.2025.8108

Şenyapar, H. N. D. (2025). Social marketing for public health in the digital age: A systematic and exploratory analysis of opportunities, challenges, and strategic directions. *Ordu Üniversitesi Sosyal Bilimler Enstitüsü Sosyal Bilimler Araştırmaları Dergisi*, *15*(3), 1830-1882. https://doi.org/10.48146/odusobiad.1639193

Shauly, O., Marxen, T., Goel, P., & Gould, D. J. (2023). The New Era of Marketing in Plastic Surgery: A Systematic Review and Algorithm of Social Media and Digital Marketing. *Aesthetic Surgery Journal Open Forum*, *5*, ojad024. https://doi.org/10.1093/asjof/ojad024

Tanantong, T., & Wongras, P. (2024). A UTAUT-Based Framework for Analyzing Users' Intention to Adopt Artificial Intelligence in Human Resource Recruitment: A Case Study of Thailand. *Systems*, *12*(1). https://doi.org/10.3390/systems12010028

Trocin, C., Hovland, I. V., Mikalef, P., & Dremel, C. (2021). How Artificial Intelligence affords digital innovation: A cross-case analysis of Scandinavian companies. *Technological Forecasting and Social Change*, *173*, 121081. https://doi.org/10.1016/j.techfore.2021.121081

Urme, U. N. (2023). The Impact of Talent Management Strategies on Employee Retention. *International Journal of Science and Business*, *28*(1), 127–146. https://doi.org/10.58970/IJSB.2209

Volianska-Savchuk, L., Kobets, D., & Soharuk, A. (2024). Digital Hr: A Revolution In Human Resources Management In The Digital Age. *Regional Aspects of Productive Forces Development of Ukraine*, *1*(29), 102–111. https://doi.org/10.35774/rarrpsu2024.29.102