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Leveraging AI solutions for digital marketing by SMEs in Morocco: the case of Datacemia

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Abstract: Morocco, a developing North African nation, is using artificial intelligence (AI) to digitise its marketing efforts. Datacemia, a unique SME, demonstrates how Moroccan SMEs may employ artificial intelligence for digital marketing. Datacemia demonstrates that SMEs may prosper in Morocco's digital landscape despite financial and technological challenges. AI-powered digital marketing can help SMEs improve their performance and sustainability. Datacemia's journey is investigated using an embedded single-case study design to highlight Moroccan SMEs' strategic usage of AI in digital marketing. The study examines archival data, content analysis, and expert insights to identify Datacemia's AI success factors, such as decision-making and AI-driven marketing campaign execution and optimisation. These findings answer the research question by demonstrating how Datacemia used AI in digital marketing, inspiring Moroccan SMEs to adopt new technology. The paper highlights AI's importance in digital marketing and advocates for more research to help SMEs by improving AI and digital marketing techniques and skills.

Keywords: AI in digital marketing; AI success factors; Datacemia; digital transformation; Moroccan SMEs.

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Biographical notes: Rachid Ejjami was a member of the Moroccan Ministry of Professional Training's National Commission for 14 years, is a Doctoral student at Ecole des Ponts in Paris, France. He received his Executive MBA from the same institution. Before that, he obtained his Master's in Science and Technology from the Moroccan University FSTE. His educational journey began with a Technical University Studies degree, following a technical high school degree. He also pursued studies in AI and machine learning at the American University MIT. Currently, he is an AI Modeler at Datacemia and a trainer in AI and machine learning. Furthermore, he was involved in the vocational training school CAFP as the CEO and Director of Studies for 14 years.

1 Introduction and background

Morocco, a developing nation situated in the Maghreb region of North Africa, has recently embarked on a digital transformation journey, particularly within its marketing sector, by initiating artificial intelligence (AI) adoption across both public and private sectors (Bouzekraoui, 2023). The Digital Marketing Institute defines digital marketing as “the utilization of advanced innovations to make a coordinated, designated and quantifiable correspondence which assists with securing and holding clients while building further associations with them” (Smith, 2007). Kumar et al. (2020) defines AI as “the science of training machines to perform human tasks by processing large amounts of data and recognizing patterns in the data through the use of an assortment of technologies such as machine learning and natural language processing. AI allows machines to learn from experience, adjust to new inputs, and perform human-like tasks” (p.17).

In Morocco, leveraging AI to develop digital marketing strategies could allow local SMEs to harness the advantages of AI in their marketing campaigns (Bella and Sabri, 2022). However, financial support is crucial for SMEs in this region to access AI tools and platforms (Oberoi, 2022). When formulating a digital marketing strategy, managers should explore the potential of marketing automation and increased efficiency through AI capabilities (Jarek and Mazurek, 2019). The complexity of AI technologies presents a challenge for SME managers, particularly those lacking the technical expertise required to design and implement effective strategies. Critically, most Moroccan SMEs demonstrate a reluctance to transition to Industry 4.0, often hindered by apprehensions regarding digitalisation and its benefits. Even with attempts to transition, Moroccan SMEs may require a supportive environment, including technological infrastructure and expert consultancy, to facilitate this change (Rajaa, 2021).

One Moroccan SME considered an outlier for its successful digital marketing business through embracing AI tech tools, Datacemia, has developed an AI-leveraged digital marketing strategy and may prove to be an example of technology adoption success in a developing market. Datacemia’s story of adopting AI-leveraged digital marketing strategies can prove lessons learned for other marketing SMEs in the Maghreb region wishing to enter the digital transformation revolution in Morocco. The AI-powered approach used by Datacemia indicates that an SME can join the broader trend of larger marketing agencies in the Maghreb region, which have integrated AI-technologies into their core business strategy (see Haddoud et al., 2023). By doing so, Datacemia is an SME in a developing economy that has successfully embedded itself in Morocco’s digital transformation wave by adopting digital marketing strategies tailored to small businesses’ unique needs and constraints. Following Datacemia’s success story may provide valuable insights into leveraging the digital sphere, from establishing a robust online presence to engaging with customers meaningfully. Datacemia’s journey is one to learn from on how AI-powered digital marketing strategies can empower and sustain small businesses in the digital age.

Although the digital transformation in Morocco is in line with the worldwide tendency of businesses to view digitalisation as a competitive advantage, the evolution of digital practices among Moroccan companies has been slowed by a need for the required resources and more practical knowledge of digital technologies powered by AI (Bassim, 2021). Empirical research in the applied business and technology literature on how developing economies may adopt AI-powered digital marketing is rare in Morocco compared to the total research on this topic presented in the extant literature (Yousra and

Khalid, 2021). The management problem is a knowledge gap among SME owners in Morocco on leveraging AI solutions into their core digital marketing strategies to improve business performance and sustainability, leading to low technology acceptance (Bouanba et al., 2022; Zouiten, 2023).

With full consideration of such a gap in the literature, the purpose of this single, embedded case study is two-fold:

- 1 to explore how a Moroccan SME, Datacemia, leveraged AI into its core digital marketing strategies to improve business performance
- 2 to provide Moroccan SME owners with low technology acceptance in the marketing sector with best practice guidelines for leveraging AI solutions into their core digital marketing strategies to improve business performance and sustainability.

This case study's conceptual and theoretical framework is grounded in the unified theory of acceptance and use of technology (UTAUT) (Venkatesh et al., 2023) and the technology acceptance model (TAM) (Davis, 1987), both being theories of technology acceptance, which researchers have used to examine the factors influencing the acceptance and deployment of AI tools in Moroccan business sectors (Mkik and Mkik, 2023; Yousra and Khalid, 2021).

This research is significant for professional practice by addressing this knowledge gap among SME owners in Morocco on how to leverage AI solutions into their core digital marketing strategies. Study results and recommendations from this embedded case study may inform decision-makers, corporate executives, and academics about the precise challenges influencing data transformation and the use of AI tools among SMEs within Morocco's marketing sector. The results of this embedded case study may facilitate the formulation of targeted strategies to foster the extensive use of AI technologies to bolster economic expansion, enhance competitiveness, and foster technological advancements within various sectors of Morocco's industries (Marouane et al., 2021).

2 Research method and design

The purpose of this single embedded case study is two-fold:

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- 2 to provide Moroccan SME owners with low technology acceptance in the marketing sector with best practice guidelines for leveraging AI solutions into their core digital marketing strategies to improve business performance and sustainability.

An embedded single-case study is a methodological approach that examines various aspects of a single case, typically an organisation (Yin, 2018). The embedded single case study designs an in-depth data analysis and a within-case examination juxtaposed with comparable scenarios reported in the existing literature (Eisenhardt, 2020). Such an approach facilitates the exploration of subunits within larger cases and enables data collection via secondary or archival sources (Yin, 2018).

The qualitative research method offers a significant advantage in enabling researchers to delve deeply into a subject anchored in a conceptual framework (Yin, 2018). Case

studies are particularly effective for investigating ‘how’ and ‘what’ questions related to contemporary phenomena within their natural contexts. This approach is applicable, especially when the researcher has little or no control over the environmental variables (Halkias et al., 2022). Single case studies focus on examining and analysing a unit within a case, leading to a more profound comprehension of the subject matter. The distinction between embedded and non-embedded units of analysis lies in their contextual differences. While embedded units share a similar, or possibly identical, environment, ‘stand-alone’ units do not. In case studies that involve a single unit of analysis, the differentiation between a unit of analysis and embedding within a case becomes indistinct (Yin, 2018).

In single-case research focusing on entrepreneurship, data collection can be effectively conducted using archival data and observations, providing additional avenues to glean insights into the studied case (Henry and Foss, 2015). Archival research constitutes a methodical approach to knowledge inquiry, entailing the processes of searching, analysing, and inferring from archival data (Corti and Thompson, 2004). Such archives are instrumental in understanding organisational practices (Perkins et al., 2010), identifying emerging issues, and enhancing the reliability of the findings (Corti and Thompson, 2004). Researchers can gather data by observing individual events or sequences over extended periods. Moreover, the collection of documents represents a valuable data source for case study research. Researchers have at their disposal a variety of sources, including minutes, contracts, policies, codes, and more, which can be obtained from an enterprise’s open-access website and subjected to content analysis (Henry and Foss, 2015).

This single embedded case study of Datacemia, an SME located in Morocco, will be a comprehensive, individual inquiry, approached holistically and tailored to fit a specific case study design as Yin (2018) recommended. In my research, I collected archival data and conducted a content analysis to derive policy and research recommendations (Yin, 2018). Additionally, I conducted an open-ended interview with Datacemia’s CEO, a digital marketing and cybersecurity expert, to gain his perspective on developing the company’s business model, business plan, developmental milestones in its history, and future plans for AI integration into its digital marketing strategy. The open nature of expert interviews is designed to support data collection based on the experts’ scope of knowledge and experience in research fields that remain under-researched (Littig and Pochhacker, 2014). Expert interviews are considered a standard research method in the qualitative paradigm and allowed me to collect rich data to achieve data saturation (Bogner et al., 2018; Mason, 2010).

The Moroccan small and medium-sized enterprise (SME) Datacemia is the unit of analysis in this embedded single-case study. The study focuses on how Datacemia integrates AI into its core digital marketing strategies to enhance business performance. In contrast to group designs, single-case research adopts an inductive methodology, wherein researchers generate recommendations based on the results and data collected (Tsang, 2013).

Single-case research designs are highly recommended for probing into the innovative dimensions of entrepreneurial ventures (Henry and Foss, 2015). In this single-subject approach, I examined Datacemia, a specific participant, as a representative example of an enterprise employing AI-powered digital marketing strategies. This comprehensive study aimed to create a detailed narrative that addresses the research question, offering insights into the application and impact of AI in digital marketing within the context of an SME

(Yin, 2018). As such, the central research question in line with the purpose of this paper is as follows:

How has Datacemia, a Moroccan SME, successfully integrated AI into its core digital marketing strategies to enhance business performance and sustainability, and what best practice guidelines can be derived to address the knowledge gap and improve technology acceptance among other Moroccan SME owners in the marketing sector?

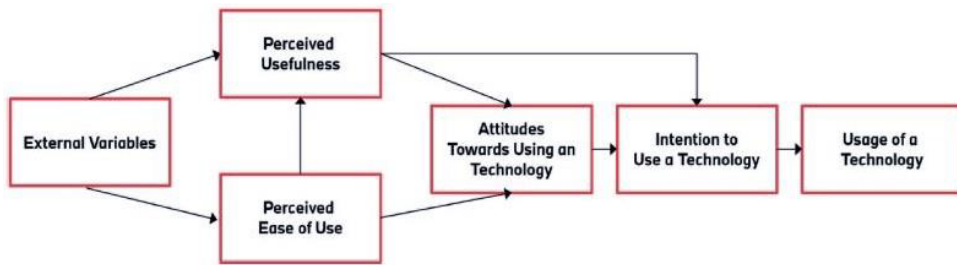
To enhance the trustworthiness and dependability of the study's findings, I employed data triangulation, integrating the reflections of two external investigators (Schippling, 2017). This approach involved comparing and contrasting various perspectives of the same data and the methodologies employed to derive results, recommendations, and conclusions (Yin, 2018). This strategy was adopted to provide a more robust and comprehensive analysis rather than relying solely on my personal observations or inferential statistics. This methodological decision ensures a multi-faceted and well-substantiated understanding of the study's outcomes (Halkias and Neubert, 2020).

3 Theoretical/conceptual framework

The TAM is widely acknowledged as a foundational theoretical framework in information systems and technology adoption research. Its principal aim is to provide an exhaustive understanding of how consumers adopt and utilise emerging technologies and information systems (Barata et al., 2023). According to TAM, a person's acceptance and adoption of a new technology is mainly driven by their evaluation of its practicality and utility. Individuals are more likely to adopt technologies they believe are valuable and user-friendly. Conversely, the UTAUT is an indispensable resource for scholars and practitioners in information systems, human-computer interaction, and technology adoption. It plays a crucial role in guiding the development and implementation of focused strategies that promote technology adoption and effective use among employees and customers (Alotaibi et al., 2022).

UTAUT is built on four critical factors that influence acceptance and resistance to technology: perceived ease of use (PEOU), perceived usefulness (PU), social influence, and facilitating conditions (Venkatesh et al., 2003). Such factors directly influence users' intentions and behaviours toward adopting technology, facilitating the creation of efficacious strategies (Mkik and Mkik, 2023). UTAUT identifies four moderating variables – gender, age, experience, and context – that explain disparities in technology adoption among user groups, resulting in a comprehensive framework for understanding and predicting technology usage (Venkatesh, 2022).

While TAM is regarded as a seminal model, UTAUT presents a more expansive framework that enhances our understanding of technology acceptance and utilisation. TAM focuses on PU and ease of use to drive technology adoption, whereas UTAUT offers a more comprehensive paradigm that includes social influence and facilitating conditions (Hirzallah and Alshurideh, 2023). UTAUT provides a broad view of user acceptance and technology use, but TAM focuses on the impact of PU and ease of use on decision-making for adopting new technology.

Figure 1 Technology acceptance model: TAM (see online version for colours)

The TAM (see Figure 1) was conceptualised by Fred Davis in 1989 as a theoretical framework to elucidate the factors influencing users' acceptance and adoption of technology. Fundamentally, TAM implies that PU and PEOU are the most important elements determining a user's inclination to utilise technology and subsequent usage behaviour (Mkik and Mkik, 2023). PU refers to the perceived benefits of using a system to increase job performance, and PEOU refers to the belief that the system requires minimal effort. The model posits that external elements such as system design characteristics, user support, and training influence users' views and acceptance of technology (Oukhayi, 2021). TAM is one of the most well-known information systems models for understanding how companies and individuals accept and apply technological advancements. It has been widely utilised and proven across many technologies and user demographics. Because TAM is simple and has been validated in thousands of studies, it has been expanded and modified numerous times to include additional aspects influencing how people accept and use technology (Barata et al., 2023).

Venkatesh and colleagues initially formulated the UTAUT in 2003, intending to elucidate and forecast technology acceptance within organisational settings. This model's relevance was further confirmed in non-organisational contexts, as demonstrated in the research conducted by Venkatesh, Thong, and Xu in the years 2012 and 2016. The UTAUT model has since exhibited extensive applicability, thereby significantly broadening its generalisability – a concept substantiated by the studies of Venkatesh et al. (2012). As the realm of information communication technologies and various sectors continued to evolve, numerous scholars have sought to refine and expand the UTAUT model. These efforts aimed to customise the model to specific situational requirements or enhance its predictive capabilities, a topic explored in depth by Venkatesh et al. (2012, 2023).

The modifications to the UTAUT model have primarily revolved around four key strategies:

- a adapting the model to various contexts
- b modifying its endogenous variables
- c incorporating additional attitudinal antecedents
- d analysing diverse moderating variables, as detailed in the recent study by Marikyan and Papagiannidis (2023).

Researchers have customised the model for varied technological and cultural contexts, making it more relevant in a wider range of technology adoption scenarios (Alotaibi et al., 2022). Modifying its endogenous variables has permitted a more thorough

investigation of user behaviour, incorporating characteristics like satisfaction and post-adoption experiences, thus improving the UTAUT model's predictive accuracy (Lock and Shihah, 2021). In his latest scholarly work, Venkatesh (2022) suggested new variables to extend UTAUT in explaining AI adoption in organisations: individual characteristics, technology characteristics, environmental characteristics, and interventions. Interventions, ranging from generic training to various types of training to innovative approaches using gamification, could be used to study the impact on AI adoption and use (Venkatesh, 2022).

4 Brief literature review

Researchers have identified external variables and underlying attitudes, which has resulted in a more nuanced understanding of the factors influencing technology acceptance and utilisation of AI technology tools (Hirzallah and Alshurideh, 2023). Exploring a broader range of moderating variables has shed light on how individual differences influence the relationship between perceived technology attributes and user acceptance (Mkik and Mkik, 2023). These comprehensive changes have significantly improved the UTAUT model, making it a more versatile and insightful tool for assessing technology adoption patterns with specific notes on AI adoption (Venkatesh, 2022).

The dominant approach has been to predict use based on behavioural intention (Venkatesh et al., 2012). Achieving the promised benefits of AI adoption is closely tied to its sustained use.

Central to this approach is the assumption that use comes from conscious decision-making, resulting from 'thinking', 'reflecting', and 'cognition'. However, related work has shown that, over time and with increasing experience, use becomes habitual (routine, automatic), and when this happens, it is not subject to conscious decision-making (Venkatesh et al., 2023). Finally, one must nurture an organisational climate that promotes innovation, learning, and other aspects that will allow the associated challenges of AI adoption to work themselves out over time, likely leading employees to adopt and use such tools (Venkatesh, 2022).

The incorporation of AI solutions in digital marketing by SMEs in developed economies has significantly enhanced their ability to target marketing efforts with greater precision, leading to higher conversion rates and more effective customer engagement (Marouane et al., 2021). In response to heightened competitiveness and the necessity to sustain operations in a dynamic global marketplace, large, medium, and small marketing companies are increasingly adopting AI tools. This adoption is driven by the need to remain competitive and offer products or services that align closely with customer needs, a strategy that leverages external data from the company's environment (Palmié et al., 2023). Automation and digitalisation have improved efficiency, reduced costs, and boosted customer satisfaction, culminating in heightened profitability and a competitive edge for SMEs in the marketing sector (Bhalerao et al., 2021).

Researchers have noted that SMEs in developing nations encounter distinct organisational challenges in utilising AI tools to develop digital marketing strategies (Bhalerao et al., 2021). The considerable cost of implementing AI technologies in these markets poses a significant barrier, particularly for SMEs with constrained resources. Additionally, the necessity for specialised knowledge in developing and implementing AI marketing strategies can impede SMEs' ability to compete with larger entities (Ljepava,

2022). Despite these challenges, AI-driven digital marketing is gaining momentum in developing economies, with SMEs accessing public and private funding and resources to stay abreast of rapidly evolving technologies and enhance their AI-based marketing strategies (Pitt et al., 2023).

Morocco's national drive towards digital transformation is particularly needed in SMEs (Aynaoui et al., 2022). Large-sized organisations have observed substantial sales growth, a development directly attributed to the strategic utilisation of digital marketing and AI tools. The widespread adoption of these technologies among Moroccan SMEs is needed to embed the technology's positive influence on business performance and sustainability (Oukhayi, 2021). This progression underscores Morocco's dedication to embedding advanced technologies into its economic infrastructure, promoting growth and innovation within the nation (Mezzour et al., 2020).

Using digital marketing and AI tools, Moroccan companies can create highly personalised customer experiences tailored to each customer's needs and preferences (Be Isa et al., 2021). With the help of AI, Moroccan SMEs can track and analyse consumer behaviour in real time, which allows them to adapt their marketing strategies on the fly and stay ahead of the competition (Allioui and Allioui, 2023). However, SMEs must be encouraged to choose automation and digitalisation in Morocco through cutting-edge, all-encompassing education workshops that deliver top-notch training for experts and managers in Moroccan SMEs (Be Isa et al., 2021).

5 Leveraging AI solutions for digital marketing by SMEs in Morocco

5.1 The case of Datacemia

Datacemia, a startup specialising in AI digital marketing services, was launched in 2023 in Casablanca by the board of directors of HTP, a private vocational training institution led by Mr. Bousalham Bouazza. The latter was named CEO after a successful two-year leadership of the AI marketing department he created to preserve the school from collapse during COVID-19. During the epidemic, Bouazza coordinated the establishment of the department, merging his talents in business management and technology to streamline operations and foster innovation. He, two digital marketers, and three data scientists used data mining, natural language processing, and machine learning to identify and respond to prospective trainee inquiries, categorise high school students, and develop customised marketing campaigns. Bouazza and his team increased income and efficacy by automating communication, analysing comments, and improving marketing campaigns with NLP-powered chatbots and data mining tools. Because of his successful initiatives, the school's admissions increased by 30% by 2020–2021 and 50% by 2021–2022.

After achieving great success with his AI digital marketing projects at HPT, Bouazza Boussalham drew the attention of the Board of Directors, who set him the task of spreading these cutting-edge solutions to Moroccan SMEs. This mandate resulted in the establishment of Datacemia, a pioneering AI digital marketing company focused on reaching Morocco's growing SME market. Bouazza became CEO in January 2023, and his objective was to revolutionise digital marketing in Moroccan SMEs with AI, striving to replicate the creativity and success he achieved at HPT. His vision for Datacemia was to reach high-quality AI digital marketing solutions and provide extensive assistance and

resources customised to the specific needs of Moroccan SMEs. Under Bouazza's direction, Datacemia swiftly established itself as a pioneer in AI-driven marketing solutions for Moroccan SMEs, transforming their digital marketing views.

Datacemia replaced HPT's digital marketing department and started leveraging its experience to provide tailored AI digital marketing solutions for Moroccan SMEs. Datacemia's strategic objective included providing them with comprehensive, relevant training programs to arm them with AI digital marketing abilities and offer specialised expertise. The company has been positioned as an epicenter of innovation and knowledge in AI digital marketing, set to change the destiny of SMEs in Morocco. Its services have expanded to encompass cybersecurity and AI training to meet their digital marketing and security needs.

Datacemia has established a strong presence in AI digital marketing, demonstrating innovation and experience to transform Moroccan SMEs' strategies. The company seeks to improve the day-to-day activities of SMEs by tailoring its state-of-the-art AI-powered digital marketing strategies to increase the effectiveness and efficiency of their marketing campaigns. Creating customised solutions to address changing organisational requirements in the digital world will likely improve AI digital marketing results and transform digital marketing processes for SMEs (Satornino et al., 2023). Datacemia has integrated advanced AI technology with exhaustive market data to assist SMEs in adapting to the demanding business environment of modern times. Its drive for excellence and innovation has inspired and empowered Moroccan SMEs to set new horizons for their digital marketing operations.

5.2 Datacemia: cybersecurity priority

Datacemia observes cybersecurity in its business operations, making it a concern and a top priority interwoven into every service and solution it offers. Datacemia's unrelenting commitment to preserving digital assets enables it to ensure data privacy and safety, serving as a formidable barrier to the ever-changing cybersecurity landscape. Datacemia proactively identifies and mitigates risks, protecting the interests of its clients by implementing cutting-edge technologies and adhering to industry standards. Moroccan SMEs may safely thrive in the digital era thanks to robust encryption technology, regular security reviews, and intensive cybersecurity training, significantly improving digital ecosystems (Kumar et al., 2023). Datacemia prioritises cybersecurity to provide its clients with a solid foundation for success in today's challenging digital settings.

Regarding SMEs in Morocco using AI solutions for digital marketing, Datacemia's focus on cybersecurity marks it ahead as a trustworthy resource in preventing technology-associated risks. With a team of experienced specialists who are up to date on the latest cybersecurity trends and tactics, Datacemia offers customised solutions to address the specific security concerns that Moroccan SMEs encounter. Its cybersecurity initiatives will help these organisations navigate the digital environment securely. By implementing robust cybersecurity initiatives, SMEs can effectively navigate the complexities of the digital environment while safeguarding their assets and ensuring data integrity (Allioui and Allioui, 2023). In the ever-changing environment of cyber risks, Datacemia is committed to promoting cybersecurity as an essential component of modern business practices, particularly in AI-powered digital marketing for SMEs in Morocco.

5.3 *Defining the business model*

Datacemia's review of its business model progresses through a series of challenges and strategic modifications aimed at offering unique AI digital marketing services to Moroccan SMEs. The company has set out to provide AI digital marketing services to the Moroccan SME sector but has experienced strong resistance from SME owners who oppose digital change. Such reluctance stems from a need for more acceptance and adoption of sophisticated technology, particularly smart, intelligent products and Internet 4.0 technologies (Oukhayi, 2021). Persuading SME managers of the benefits of AI digital marketing solutions on profit margins took much work because they were cautious about adopting these innovations into their customer service and organisational training initiatives.

To tackle this challenge, Datacemia conducted extensive market research to identify the unique requirements and constraints experienced by SMEs when implementing AI digital marketing tools. The research discovered a considerable need for more understanding among SMEs regarding the benefits of AI-powered digital marketing approaches. Through collaboration with data scientists and research on global AI digital marketing strategies, Datacemia developed tailored solutions to meet the unique requirements of the Moroccan market. Despite these efforts, Datacemia had hurdles in commercialising its AI marketing solutions, mainly because SMEs were unfamiliar with AI tools and reticent to embrace digital transformation.

Datacemia recognised the crucial need for a holistic approach to successfully selling AI digital marketing solutions to SMEs. The company became aware of this when dealing with brand recognition challenges and a need for digital development in Morocco. Despite intensive advertising and networking efforts, Datacemia faced significant challenges as SME owners hesitated to adopt new technologies. However, Datacemia remains firm in its commitment to advocating for AI adoption, recognising its essential role in improving digital marketing. It has broadened its offerings to include more AI and cybersecurity training for professionals and SMEs to boost revenue and create awareness about the effectiveness of AI digital marketing.

Datacemia's dedication and extensive analysis highlighted the importance of developing a specific and detailed marketing strategy to inform SME owners about the benefits of AI digital marketing solutions. The company considered offering AI and cybersecurity training programs and consulting services to assist SMEs in bridging the knowledge gap. Datacemia intended to broaden its reach using a range of endeavours, including strategies such as campaigns, presentations, and trade fair participation. At the heart of these efforts was designing a precise business model tailored to solve the issues that SMEs face and improve pricing strategies and performance metrics. Datacemia offers AI digital marketing solutions to Moroccan SMEs and training for professionals and SME managers to improve the effectiveness of implementing innovative solutions.

5.4 *Leveraging AI digital marketing solutions*

Datacemia, a leading provider of AI digital marketing solutions for SMEs in Morocco, uses a complete strategy to transform their digital marketing strategies through AI tools. Recognising AI's disruptive impact on redefining digital marketing strategies, Datacemia undertakes extensive research and analysis to gain deeper insights into the challenges faced by Moroccan SMEs. That entails using various approaches, such as surveys,

interviews, and market assessments, to thoroughly understand the industry's difficulties and opportunities (Filali and Faraj, 2022). Utilising these valuable insights, Datacemia develops personalised AI solutions tailored to the unique needs of Moroccan SMEs, targeting their challenges and supporting them in enhancing their digital marketing strategies to excel in the competitive landscape. Datacemia's commitment to innovation and client-centered approaches has helped promote the adoption of AI-driven digital marketing tools among Moroccan SMEs, establishing it as one of the leaders in the industry.

Datacemia, armed with a thorough grasp of SMEs' needs, methodically develops a personalised approach for effortlessly incorporating AI into their digital marketing frameworks. The primary goal is identifying areas where AI-powered solutions may transform operations, such as automating tasks, improving targeting precision, and customising content. This comprehensive plan aims to improve campaign performance and increase customer involvement, resulting in tangible outcomes for Moroccan SMEs. Datacemia ensures its services provide maximum value and impact by tailoring its AI digital marketing solutions to each SME's specific goals and objectives. The company continues at the forefront of empowering SMEs with cutting-edge AI technology, allowing them to prosper in the ever-changing field of digital marketing.

Acknowledging the importance of training and upskilling in improving AI implementation in digital marketing, Datacemia is dedicated to delivering extensive training materials. These materials are customised for SME managers and digital marketing teams, offering them valuable insights and practical skills for efficiently navigating the digital landscape. Datacemia provides SMEs with the information and skills they need to effectively use AI technology in their digital marketing efforts through a variety of channels, such as seminars, webinars, tutorials, and hands-on training sessions. This proactive strategy encourages innovation and develops a culture of continuous learning among SMEs, allowing them to adapt and survive in a rapidly changing digital world (Bouzekraoui, 2023). Datacemia enables SMEs to remain competitive by prioritising training and development and promoting growth and success in their sectors while capitalising on the promise of AI-driven digital marketing techniques.

Datacemia's strategy revolves around its commitment to customisation and personalisation, which involves using AI to create highly targeted digital marketing campaigns perfectly tailored to the interests and habits of Moroccan SMEs' target consumers. Datacemia analyses massive datasets using advanced machine-learning techniques to extract valuable insights and patterns. These insights serve as a basis for producing personalised content, offers, and experiences, allowing SMEs to build stronger customer relationships and achieve significant business results (Othman et al., 2022). Datacemia enables SMEs to adapt their marketing efforts to their target audiences' specific demands and habits, allowing them to improve brand loyalty, increase consumer engagement, and eventually achieve better market success. Datacemia remains committed to assisting SMEs in leveraging the full potential of AI-powered digital marketing to achieve long-term growth and competitiveness in today's dynamic business world.

In addition to personalised AI digital marketing techniques, Datacemia prioritises performance monitoring and optimisation. Its powerful analytics and tracking tools allow SMEs to measure the performance of their AI-powered digital marketing efforts quickly. Datacemia equips SMEs with efficient tools and insights, allowing them to thoroughly

evaluate campaign performance, identify areas for improvement, and make informed, data-driven decisions. This iterative method enables SMEs to continuously modify their digital marketing strategy, increasing ROI and achieving overall company goals (Oubibi et al., 2022). Datacemia's dedication to performance monitoring and optimisation ensures that SMEs maximise the impact of their digital marketing efforts and achieve long-term success in the competitive marketplace.

Furthermore, Datacemia acknowledges the importance of cybersecurity in maintaining the integrity and confidentiality of SME data. It is critical to recognise this significance in an era where digital technologies are becoming essential in marketing operations (Aynaoui et al., 2022). Datacemia ensures that SMEs can confidently carry out AI-driven digital marketing activities by establishing strong cybersecurity safeguards such as encryption protocols, frequent security audits, and comprehensive employee training programs. That assures them that their critical information is safe from potential internet hazards. Because of this, SMEs can focus on using AI technology to enhance their digital marketing strategies without worrying about data security.

Datacemia pursues strategic alliances and partnerships with leading AI technology suppliers, marketing agencies, and industry experts to enhance the effectiveness of its AI digital marketing solutions for Moroccan SMEs. These collaborations provide Datacemia with access to cutting-edge technologies, valuable knowledge, and additional resources, enabling it to continuously innovate and refine its products. By staying at the forefront of industry advancements through collaboration, Datacemia ensures that its offerings remain relevant and competitive in meeting the evolving needs of the Moroccan SME market. Datacemia's proactive approach to partnerships enables it to advocate for the widespread adoption of AI-powered digital marketing tools across various industries, fostering innovation and growth in the business landscape. Datacemia reinforces its commitment to empowering SMEs with advanced marketing solutions through strategic alliances, driving their success in the digital age.

In a nutshell, Datacemia is an innovative company in AI digital marketing, providing an extensive range of services adapted exclusively to the demands of Moroccan SMEs. Datacemia helps SMEs prosper in the digital landscape with confidence and efficacy by providing tailored AI digital marketing solutions, complete training materials, targeted campaigns, powerful analytics tools, and robust cybersecurity safety measures. Its clients can succeed in today's competitive market as it addresses their specific challenges and provides them with the tools and assistance they need. Datacemia, committed to innovation, excellence, and customer satisfaction, keeps pushing the boundaries of digital marketing for Moroccan SMEs, producing growth and prosperity in the business community.

6 Evaluation of the findings

The following sections introduce four components of successful AI deployment in digital marketing. They investigate PU, ease of use, performance and effort expectancy, and social influence and supportive settings. Datacemia uses user-centric design, strategic planning, and favourable environments to incorporate AI into its digital marketing services, resulting in better outcomes and competitive advantages for Moroccan SMEs.

6.1 PU of AI in digital marketing

Recognising and conveying AI's practical benefits is critical to its perceived effectiveness in digital marketing (Oberoi, 2022). AI's ability to analyse vast amounts of data allows for more accurate targeting, personalised content, and efficient customer engagement, revolutionising marketing (Venkatesh, 2022). Companies can demonstrate AI's transformative impact by sharing success stories and providing tangible proof. That converts AI into a commercial necessity, encouraging SMEs to invest in it for growth (Istipliler et al., 2023). Showing these benefits highlights AI's importance for digital marketing and business performance.

Datacemia's CEO believes that for AI in digital marketing to be successful, it must appeal to all stakeholders. He advises investigating how AI's capabilities affect marketing strategies and corporate goals rather than simply listing its features. Datacemia has used targeted communication to align stakeholder perspectives with its strategic AI integration plans, emphasising AI's ability to address marketing challenges and open up new opportunities. Datacemia made AI-powered digital marketing a strategic asset to improve business outcomes.

6.2 PEOU of AI-powered digital marketing

AI digital marketing must be accessible and user-friendly, which is especially crucial for SMEs, which often lack technological skills and resources (Filali and Faraj, 2022). AI's promise to revolutionise marketing strategies benefits these businesses, but its implementation could be better. AI technologies are challenging to understand, so they must be demystified to become more accessible. It is necessary to simplify AI's digital marketing user interface and align its features with SMEs' marketing objectives and skills, making AI adoption less intimidating and desirable (Pitt et al., 2023).

The Datacemia CEO asserts that SME-specific training programs are required to close the AI adoption knowledge gap. Marketing professionals should be trained in AI tools, from basic functionalities to advanced analytics and informed decision-making. Thanks to Datacemia, SMEs can readily adopt AI digital marketing solutions with user-friendly interfaces to improve operational efficiency and marketing performance. This strategic blend of focused training and user-centric design enables SMEs to seamlessly embrace AI technology, ensuring ongoing engagement and maximising AI's benefits in digital marketing.

6.3 Addressing performance and effort expectancy

UTAUT states that performance and effort expectancy are critical for AI adoption (Lock and Shihah, 2021). Performance expectation is centred on the assumption that AI integration will improve work performance and marketing campaign efficiency (Venkatesh et al., 2023). In contrast, effort expectation focuses on AI technology's PEOU (Hirzallah and Alshurideh, 2023). In digital marketing, emphasising AI's data-driven insights, targeted marketing approaches, and personalised customer experiences can help promote adoption. Businesses benefit from explaining how AI can boost marketing results through real-world examples and success stories, which align with potential adopters' performance expectations.

The CEO of Datacemia argues that SMEs with diverse digital proficiency and resources require AI technology to be easily accessible. Datacemia has developed customised training and support systems to assist businesses in implementing AI-powered solutions and procedures. Through its AI digital marketing campaigns, it has offered comprehensive learning opportunities across all AI capabilities, allowing SMEs to maximise AI's promise without encountering technology obstacles. Datacemia has sought to persuade SMEs skeptical of new digital tools to adopt AI developments by lowering perceived effort and improving usability.

6.4 Capitalising on social influence and supportive settings

Adopting and integrating AI technology in digital marketing depends on social factors and a suitable environment (Haramouni et al., 2022). Peer recommendations and industry success stories motivate change in digital marketing practices within SMEs. Such endorsements and instances of achievement in the field serve as catalysts for SMEs to improve their digital marketing, emphasising the value of effective AI partnerships in establishing trust and credibility. This approach demonstrates AI's practical benefits and disruptive potential in digital marketing while reducing mistrust and unfamiliarity with the technology (Benabdelouahed and Dakouan, 2020).

Datacemia's CEO underlines the necessity of a robust digital infrastructure to integrate AI into marketing while preventing operational and cybersecurity risks. Datacemia's secure and trustworthy AI marketing solutions have removed a significant barrier for reluctant SMEs to adopt new technologies. The company has exploited social influence and supportive settings to assist SMEs in transitioning to AI-driven digital marketing. Hence, SMEs will likely be encouraged to employ AI in digital marketing for its usability, dependability, and security.

7 Implications, recommendations, and conclusions

This study addresses the challenges that Moroccan SMEs, such as Datacemia, encounter in integrating AI into their digital marketing strategies amid constraints like budget limitations, technical inexperience, and skepticism about digitalisation's benefits. With a focus on how Datacemia successfully harnessed AI to enhance its business performance, the research aims to offer actionable insights for other Moroccan SMEs struggling with digital transformation. By employing an embedded single-case study design, the research meticulously evaluates Datacemia's AI adoption journey, shedding light on the strategies, obstacles, and achievements that could inform and inspire broader AI utilisation among SMEs in Morocco. Despite its limitations, including its single-case focus and the dynamic nature of digital marketing and AI technologies, the study underscores AI's potential to revolutionise digital marketing, improve competitiveness, and ensure long-term business success, providing a valuable blueprint for Moroccan SMEs embarking on their digital transformation journeys.

7.1 Implications of the findings

The findings of this case study on Datacemia's AI integration into digital marketing are consistent with previous research on the adoption and use of AI technology. This paper

provides real-life instances of effective execution. The evidence supporting the claim that Datacemia's strategic use of AI led to enhanced and tailored marketing campaigns is consistent with academic research showing AI's transformative impact on marketing strategies. Emphasising the development of AI that can be easily used by SMEs that have little expertise aligns with research pushing for AI simplification to improve accessibility (Mariani et al., 2023). This case study resonates with a sophisticated concept by highlighting the importance of performance and effort expectancy, demonstrating the potential for AI to improve marketing effectiveness. In addition, this study underlines the importance of social impact and supportive infrastructure in AI adoption, which concords with earlier research on social dynamics and infrastructure in technological acceptance. The findings support known theories and provide practical guidance for Moroccan SMEs undergoing digital transformation. They demonstrate the use of TAMs in a dynamic digital context.

This case study indicates that Datacemia's business strategy is based on efficiently using AI in its core digital marketing initiatives. This Moroccan SME has used AI to improve its business performance and sustainability while setting a benchmark for other Moroccan SMEs in the marketing industry. This case study examines how Datacemia used AI to transform its digital marketing approach, using tools like marketing automation and advanced analytics to achieve accurate and quantitative approaches to communication. This adoption aligns Datacemia with the broader digitalisation trend, placing it as a leader among Moroccan SMEs in successfully embracing AI technologies. This integration demonstrates the power of AI to improve marketing efforts, from customer acquisition to retention, urging Moroccan SMEs to address financial and technological barriers to incorporate AI into their digital marketing plans (see Haddoud et al., 2023). This case study aims to provide best practice guidelines to bridge the current knowledge gap and increase technology acceptability among other Moroccan SME owners in the marketing sector, all within Morocco's ongoing digital transformation.

Using AI-powered digital marketing has proven to be a beneficial strategy for Moroccan SMEs that were previously reticent to accept AI technologies (Alliouï and Alliouï, 2023). Small and medium-sized Moroccan firms that have embraced AI-powered digital marketing strategies have experienced significant improvements in client targeting and segmentation, resulting in more streamlined and effective marketing campaigns. SMEs can quickly analyse enormous amounts of data using AI techniques, giving essential insights into consumer behaviour and preferences to drive more personalised marketing efforts. Businesses have reduced operational costs by automating regular processes and optimising advertising expenditure with AI, allowing them to allocate resources strategically to stimulate growth (Ljepava, 2022). Early adopters in the Moroccan market have shared success stories highlighting higher engagement and conversion rates, demonstrating the benefits of adopting AI technologies into marketing efforts (Oukhayi, 2021).

This case study shows Datacemia's emphasis on AI-powered digital marketing and cybersecurity training as critical to successfully adopting and applying AI technologies. The complexities of AI and related cybersecurity challenges, combined with a general reluctance among Moroccan SMEs to embrace digital transformation, highlighted the urgent need for targeted training activities (Mezzour et al., 2020). Datacemia recognised the significance of such initiatives in creating the technical competence required for successful AI-driven marketing strategies and mitigating cybersecurity threats associated with digital technology. Datacemia assisted SMEs in transitioning more smoothly into the

digital age by promoting a nurturing environment filled with advanced technology, professional guidance, and customised training programs, allowing them to navigate the complexities of AI and cybersecurity confidently. This methodology allowed Datacemia to exploit these training sessions for SME owners and professionals in a variety of ways:

- 1 Datacemia strengthened its technical expertise in AI applications, which resulted in a considerable increase in the efficiency and efficacy of its marketing initiatives
- 2 Datacemia has increased its cybersecurity measures to ensure the protection and integrity of its digital assets
- 3 Datacemia fostered a continuous learning and innovation culture, solidifying its position as a leader in Morocco's digital marketing business.

Research shows that Moroccan SMEs' reluctance to adopt AI in digital marketing is driven by their CEOs' attitudes (Bouanba et al., 2022). According to such study findings, SMEs sometimes hesitate to implement AI into their digital marketing campaigns because their CEOs are skeptical of new technologies. CEOs need to understand AI capabilities and potential benefits to ensure the implementation of innovative digital marketing methods within their organisations (Lamdasni and Okar, 2020). The CEO of Datacemia has made a significant contribution to company culture by establishing focused training programs that highlight the benefits of AI-powered digital marketing and sharing success stories from SMEs that have adopted AI technologies.

The interpretation of the study's findings could have been influenced by several interlinked factors associated with Datacemia's successful deployment of AI in digital marketing:

- 1 Morocco's cultural and economic backdrop, as a developing country in the Maghreb region, has a considerable impact on the approach to digital transformation (El Koufi et al., 2022). Given Moroccan SMEs' cultural predispositions and economic restraints, they may be reluctant to embrace AI's utility and usability in digital marketing. This cautious approach may influence how SMEs and CEOs perceive AI's benefits and drawbacks.
- 2 Moroccan SME owners have a considerable knowledge gap and a general lack of technological expertise, particularly in AI and digital marketing (Haramouni et al., 2022). This disparity likely illustrates the perceived hurdles and the value of specialised training programs and supportive environments, as outlined in the case study.
- 3 Morocco's availability and quality of technological facilities and advisory services can significantly affect AI adoption and successful implementation in digital marketing (Oubibi et al., 2022). AI adoption success depends on SMEs like Datacemia having reliable digital infrastructure and competent coaching to handle operational and cybersecurity risks.
- 4 Visible success and assistance from industry leaders and peers may influence how other Moroccan SMEs see and utilise AI technologies (Othman et al., 2022). The case study's emphasis on social influence and supportive circumstances suggests that Datacemia's positive results could persuade hesitant SMEs to see AI integration in a better light.

The findings of the Datacemia case study effectively address the pervasive need for more awareness among Moroccan SME owners on integrating AI in digital marketing. This case study complies with well-known theoretical frameworks such as UTAUT and TAM, highlighting elements such as perceived utility, simplicity of use, performance expectations, and the impact of social dynamics and supporting surroundings. UTAUT and TAM highlight the importance of such factors in effectively implementing new technology (Kumar et al., 2023). Datacemia's approach, which combines user-centric design and strategic planning, highlights how understanding and using the benefits of AI could simplify its adoption and reduce SME owners' resistance, typically caused by unfamiliarity or concern about new technology solutions.

Datacemia's efforts to utilise social influence by sharing success stories and providing a supportive training environment highlight the importance of developing an organisational culture that values innovation and continual learning. This paper contributes substantially to providing practical insights and establishing ideal guidelines for Moroccan SMEs joining the field of AI-driven digital marketing through its research objectives. Applying TAM and UTAUT principles in a developing market like Morocco adds to the existing literature by demonstrating the real-world implementation of theoretical concepts to boost technology adoption among SMEs (Venkatesh et al., 2023). Applying theoretical models in a novel context confirms their applicability and adaptability. It broadens the conceptual framework to address SMEs' unique challenges and opportunities in developing markets, providing valuable insights for SMEs embracing digital change.

The Datacemia case study findings support widely held beliefs on technology adoption, highlighting the significance of PU and simplicity by demonstrating how TAM and UTAUT theories are applied to Moroccan SMEs utilising AI for digital marketing to improve awareness. Datacemia's performance supports the relevance of user perception and social influence in technology adoption. It builds on previous studies by showing how focused training and strategic leadership in SMEs may effectively overcome the knowledge gap in AI adoption, especially in developing nations. Customised plans that address SMEs' unique problems and opportunities provide significant insights into the complex processes of technology integration and digital advancement in a developing nation's marketing efforts (Barata et al., 2023).

7.2 Recommendations for managerial practice

The adoption of AI is altering the digital marketing landscape, creating new potential for SMEs (Hirzallah and Alshurideh, 2023). That is especially important in emerging economies, where adopting such technologies can significantly increase competitiveness. Datacemia, an SME based in Morocco, is a compelling illustration of how AI may be successfully used to enhance digital marketing operations. Based on this case study and the broader academic research on technology acceptance and digital transformation, several recommendations for managerial practice in the SME sector exist.

Recognising and explaining the practical benefits of AI is critical when adopting it in digital marketing (Füller et al., 2022). Datacemia's experience demonstrates the value of AI in precise data analysis for targeted marketing and tailored content development. That is consistent with scholarly studies, showing that the perceived value of technology influences its adoption (Lock and Shihah, 2021). To clarify the concept of AI and emphasise its commercial worth, managers should provide success stories and tangible

outcomes of AI implementations, such as higher customer engagement metrics and return on investment. This approach not only explains the possible impact of AI but also assists in matching stakeholder perspectives with the strategic vision of AI integration.

The simplicity with which AI technologies can be used influences user adoption significantly (Dumitriu and Popescu, 2020). Datacemia's user-centric approach, which promotes interface simplicity and improved user experience, demonstrates how adoption barriers can be minimised. This study backs up this notion, emphasising the significance of simplifying the complexities of new technology in order to assure its acceptability. As a result, managers should choose AI systems with user-friendly interfaces and ensure the availability of comprehensive training. That guarantees that every member of the team, regardless of technical skill, can effectively use AI technologies, promoting the democratisation of technology use inside the organisation (Bentaher et al., 2021).

The success story of Datacemia highlights the importance of training in improving the perceived effectiveness and usability of AI technology. That is seen in the literature, where performance expectancy is acknowledged as a critical driver for adopting new technology (Mkik and Mkik, 2023; Venkatesh, 2022). Managers should thus engage in resources to create specialised training programs that address the particular requirements of SMEs. These programs should cover a broad range of topics, beginning with foundational concepts and progressing to more advanced analytical skills. The goal is to guarantee that marketing professionals have the knowledge and skills to properly use AI in their digital marketing operations.

Social factors and the creation of supporting environments are critical in promoting the use of AI (Marouane et al., 2021). Datacemia exhibited the power of social influence by using peer endorsements and industry collaborations to share its success story. This finding aligns with academic research emphasising the importance of social impact in technological acceptance (Palmié et al., 2023; Pitt et al., 2023). Managers should swiftly seek opportunities to communicate with industry peers, share their accomplishments, and create collaborations to help build shared confidence in AI technologies. These collaborative networks can serve as a catalyst, encouraging the broader usage of AI in digital marketing (Nguyen et al., 2022).

This case study highlights the need for a robust digital infrastructure to efficiently implement AI technology with minimal disruptions. That is a critical issue for consideration because it is supported by research identifying the prerequisites for technological adoption (Jarrahi et al., 2023). Managers must prioritise investments in digital security and infrastructure to handle potential operational and cybersecurity risks resulting from the usage of AI. A secure and reliable environment allows for the seamless integration of AI technologies while instilling trust in stakeholders regarding embracing new technology (Bhalerao et al., 2021).

SMEs in emerging markets can achieve significant competitive advantages by using AI in their approach to digital marketing. Managers may overcome the challenges of incorporating AI by thoroughly outlining its benefits, making it easier to adopt, boosting performance through targeted training, using social influence, and developing a robust digital infrastructure (Alliou and Alliou, 2023). Based on the findings of the Datacemia case study and existing literature about technology adoption, these strategic recommendations give a practical framework for small and medium-sized firms to use AI to reshape their digital marketing efforts effectively.

7.3 Recommendations for future research

The outcomes of this embedded case study match with the existing research. It is widely recognised that incorporating AI into digital marketing is vital for Moroccan SMEs seeking to grow their businesses (Bouzekraoui, 2023). The Datacemia example focuses on how CEO mindsets and organisational culture influence the integration of AI in digital marketing, indicating a possible avenue for further research into the psychological and cultural factors that influence SME leaders' perspectives on digital innovation. Exploring these characteristics can provide a more in-depth understanding of addressing technology adoption challenges (Bella and Sabri, 2022). Interviews and other qualitative research methodologies can help identify the beliefs and attitudes influencing SMEs' digital strategies. Furthermore, the importance of specialised training, as illustrated in this case, emphasises the urgent need for research into the efficacy of various training methods. Assessing the impact of workshops, online courses, and practical sessions could help determine the most efficient ways to improve SMEs' technical skills in AI-driven digital marketing, resulting in the development of tailored training programs for SMEs in emerging markets (Khazri, 2022).

One area for improvement in the use of AI in digital marketing derives from the significant disparities in AI deployment levels between small and medium-sized organisations. Following the progression of AI adoption over time may provide significant insights into the ongoing challenges and shifting opportunities that SMEs encounter as they integrate AI into their digital marketing strategy (Borah et al., 2022). Such findings would shed light on the path to long-term AI adoption success, emphasising the substantial impact on corporate expansion. Ethnography could provide a comprehensive view by evaluating AI adoption in diverse socioeconomic and cultural contexts and identifying the elements influencing digital transformation in Moroccan SMEs (Bassim, 2021). Empirical research on the influence of AI on consumer engagement and retention would provide significant insights into how it might help improve digital marketing strategies. Researchers can delve into AI deployment in SME digital marketing by reviewing case studies like Datacemia, overcoming challenges, and maximising the potential for boosting innovation and competitiveness. By pursuing such endeavours, academics can develop tailored techniques to improve AI utilisation in SMEs, supporting market growth and flexibility in the long run.

Expanding on the Datacemia case study, future research can improve SMEs' understanding of AI in digital marketing, particularly in emerging economies, by pushing beyond existing limitations and exploring new research approaches. Expanding the research scope to include a broader range of SMEs from diverse industries and geographies can reveal a wealth of AI integration experiences. That can help with comparative analysis, identifying similarities and differences in adoption issues and solutions within various contexts. By using longitudinal designs, we may gain a deeper understanding of the shifting environment of AI adoption and its long-term effects on SMEs' digital marketing strategies, revealing the impact of technological and market changes over time (Othman et al., 2022).

In addition, using quantitative analyses to examine AI's impact on specific marketing indicators may strengthen empirical proof of its benefits, allowing for a more objective assessment of AI's function in SMEs. Similarly, investigating the efficacy of various training programs might bring valuable information on overcoming weaknesses in AI technology capabilities among SME employees. Likewise, researching the impact of

external support systems, such as government regulations and industry collaborations, on AI adoption could provide valuable insights for tackling infrastructure and expertise-related difficulties in developing countries. Exploring these varied research themes will contribute to a more theoretical debate on technology adoption in SMEs and practical insights for business executives and policymakers seeking to foster digital innovation and long-term success in the sector (Aynaoui et al., 2022).

One final idea for future research is to take what has been gained from the Datacemia case study to continue developing a conceptual and empirical understanding of how AI influences digital marketing in small and medium-sized firms. The current research highlights the importance of AI in digital marketing for SMEs by illustrating its ability to improve targeting accuracy, customise consumer experiences, optimise ad campaigns, and increase total marketing ROI (Oberoi, 2022). In the future, academics may compare case studies from other industries and regions to learn more about the contextual factors influencing AI adoption. Longitudinal studies are another technique to investigate topics. They allow specialists to see how small organisations that utilise AI evolve and document persisting alterations and repercussions (Kakatkar et al., 2019).

A large-scale quantitative study is also needed to thoroughly understand how AI influences critical marketing indicators and demonstrate that it benefits small firms. Also, conducting a thorough examination of training methodologies will aid in determining the best ways to provide SME staff with the required AI capabilities. The forthcoming study might also investigate how regulatory frameworks and external support networks influence the application of AI in SME environments. Building on Datacemia's groundbreaking work, this all-encompassing strategy seeks to provide helpful information for enhancing the use of AI in SMEs' online advertising campaigns, allowing them to expand and compete more effectively in the digital age.

8 Conclusions

The purpose of this single, embedded case study is two-fold:

- 1 to explore how a Moroccan SME, Datacemia, leveraged AI into its core digital marketing strategies to improve business performance
- 2 to provide Moroccan SME owners with low technology acceptance in the marketing sector with best practice guidelines for leveraging AI solutions into their core digital marketing strategies to improve business performance and sustainability.

This case study's conceptual and theoretical framework is grounded in the UTAUT (Venkatesh et al., 2023) and the TAM (Davis, 1987), both being theories of technology acceptance, which researchers have used to examine the factors influencing the acceptance and deployment of AI tools in Moroccan business sectors (Mkik and Mkik, 2023; Yousra and Khalid, 2021).

AI-powered digital marketing has increased customer engagement, decision-making, and business performance for SMEs, encouraging competitiveness and digital market growth (Hemalatha, 2023). This embedded case study reveals a need for more knowledge among SME owners about the benefits of incorporating AI technologies. It emphasises the significance of perceived utility, easy use access, anticipated efficiency, and the influence of social interactions, along with encouraging settings to adopt AI effectively.

This paper is significant because it covers a knowledge gap and shows how theoretical models may be applied in real-world scenarios. It gives valuable insights for small enterprises facing digital transformation issues in developing nations.

The most important lesson learned from this case study is that incorporating AI into the digital marketing strategies of SMEs, particularly in developing markets, can have a significant and positive effect. The story of Datacemia supports the importance of SMEs focusing on user needs, fostering a corporate culture that values innovation and the pursuit of knowledge, and engaging in careful strategic planning. This viewpoint enables the efficient use of the extensive capabilities of AI and steers digital marketing initiatives towards improved effectiveness, personalised consumer interactions, and, most importantly, long-term corporate success. Integrating AI into SME digital marketing operations is expected to transform their processes significantly, ultimately changing the competitive environment (Mezzour et al., 2020). This adjustment will give SMEs an original and effective strategy to adapt to and succeed in the digital economy.

This study's findings are important for academic research and management practice in business administration, using well-known technology acceptance theories to provide a practical framework for incorporating AI into the digital marketing strategy of small and medium-sized businesses. Managers can utilise this study to deploy AI more effectively, emphasising leadership attitudes, training programs, and external support networks. In light of previous research, this study broadens the discussion by applying theoretical concepts to a new context, improving understanding of technology adoption processes among SMEs in developing countries, and laying the groundwork for future research in this critical field of business innovation and digital marketing.

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