Migration Letters

Volume: 21, No: S1(2024), pp. 500-511

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)
www.migrationletters.com

Corporate Governance of Sustainable Artificial Intelligence (AI) in Strategic Communication (SC) and Digital Marketing (DM): United Arab Emirates Guidelines

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Abstract

Artificial intelligence has become a major element in corporates' strategic plans, and its technologies have been linked to strategic communication techniques for public relations and digital marketing communications. The current study aimed to monitor Governance of Sustainable Artificial Intelligence (AI)in Strategic Communication (SC) and Digital Marketing (DM).

The research initially involved secondary research where qualitative data was collected to design research questions related to the governance of sustainable AI as a frame for strategic communication and digital marketing. The mixed method of data collection adapted using a textual discourse analysis form to collect data and determine organizational governance priorities for responsible artificial intelligence in the United Arab Emirates (UAE).

The results indicated the responsible use and sustainability of artificial intelligence and its impact on the organization's strategic communication and emphasize the corporates efforts to protect users from electronic fraud based on (AI)techniques to detect hacks, frauds, and misleading messages.

The findings recommended reliance on robots to manage social media platforms, crisis communication, public relations and digital advertising, and detecting machine production of fake content.

Keywords: *Responsible AI-Strategic Communication-Digital Marketing-AI Ethics-Sustainable AI -Data Governance.*

Introduction & Literature Review

Artificial Intelligence (AI) is one of the most rapidly advancing technologies in our current era (Yigitcanlar & Cugurullo, 2020). Its usage has been increasing in both government and private institutions, particularly in strategic planning (Shibl et al., 2023). The competitive environment today has compelled organizations to keep up with the developments in digital marketing to satisfy consumers' needs as much as possible (Arantes, 2023). Several industry professionals also believe that AI will transform public relations in terms of organizational communication and overall interactions (Swiatek & Galloway, 2023). The European Communication Monitor of 2021 highlighted the significance of adapting to digital advancements as one of the key strategic issues in communication management (Kostić & Šarenac, 2021). These technological

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developments have enhanced the role of public relations in reputation management, strengthening community relationships, brand value, and online presence for customers (Biswal, S. K., & Gouda, 2020). Despite the positive effects of organizations adopting AI, there is growing concern about its unintended and negative consequences. According to a United Nations report, at least 75 countries are actively developing forms of AI monitoring to improve public services through automatically generated data, leading to increasing worries about AI technologies (Esberg & Mikulaschek, 2021).

Literature

(Aguerrebere et al.,2023) concluded that the corporate communication department needs to employ experts in Artificial Intelligence (AI) and focus on communication strategies to meet stakeholders' information needs, crisis management, and initiative implementation. Results from (Thabit,2023) shed light on the modern trends of AI usage in managing government services in the UAE. The study revealed the use of AI applications and techniques in customer relationship management, including Metaverse technology and AI-based stakeholder management. Organizations also showed interest in privacy policy frames in their communication with customers and disclosed the use of encryption methods for storing and handling customer data .(Illia et al.,2023) highlighted the ethical concerns regarding blurring roles between humans and machines in content production within business organizational settings. New challenges for AI text agents included mass automated manipulation, misleading/fake information production, low-quality content generation, and increasing barriers in stakeholder communication. The study called for analyzing various types of text generated by AI agents before establishing any global rules on appropriate use. (Economou, 2023) examined the impact of institutional forces on the use of Big Data in guiding organizational communication strategy, along with digital challenges faced by communication planners within the organization. The results of a study by (Maspul, 2021) showed that customers were satisfied with AI-based food production systems supporting sustainability in the United Arab Emirates by reducing carbon footprint, using fewer resources, and minimizing waste. Another study conducted by (Johnson et al., 2022) revealed that Apple and Google's privacy-centric changes impacted digital marketing strategies, targeting, measurement, and emphasizing privacy in digital advertising (Ravikumar et al., 2023; Salameh et al., 2022; Shwedeh, Adelaja, et al., 2023).

(Vinuesa et al. 2020) used the term "Sustainable AI" to refer to artificial intelligence that contributes to achieving Sustainable Development Goals (SDGs). Sustainable AI is AI that adheres to regulatory principles, including organizational processes, regulations, best practices, and definitions/standards to meet transformative potentials of sustainable development while simultaneously protecting the environment and enabling economic growth and social justice (Tsafack Chetsa, 2021) Organizations have increasingly utilized big data and digital analytics to make digital communications more effective (Economou et al., 2023). International organizations have also focused on researching ways to reduce concerns and negative impacts that coincide with the use of artificial intelligence (United Nations Conference on Trade and Development, 2021). This highlights the importance of studying the ethical and responsible use of AI in strategic communications and digital marketing (Aburayya et al., 2023; El Nokiti et al., 2022; Salloum, Al Marzouqi, et al., 2023; Shwedeh et al., 2022).

The Digital Marketing Institute (DMI) defines digital marketing as "the use of digital technologies to create integrated, meaningful, and measurable connections with customers to acquire and retain them while building deeper relationships with the organization's customers" (Akgün et al., 2022). Strategic communication includes four dimensions: as public relations/corporate communication, as a structure to integrate targeted communication functions within organizations, as a process integral to strategic management emphasizing the levels of the organization, standard functions, discourse,

and public interest service, and as a comparative frame for examining the processes used in various functions and professions (Hallahan, 2015).

Consequently, many governments have adopted artificial intelligence applications to improve the standards of government services and gain customer satisfaction and loyalty (Mishra &Mukherjee, 2019). According to data from the 2022 AI Index Report, Western countries outperform the Arab countries included in the report in the AI index, and the United Arab Emirates (UAE) ranks first among the Arab countries. Thus, there is a growing need for ethical and legal regulation of AI usage in general and within organizational strategic communication specifically. The majority of UAE's government service providers have supported the imposition of new regulations for the digital economy and stressed the importance of implementing the UAE Data Law, the national AI ethical frames, and the Electronic Transactions Law (Shibl et al.,2023).Studies have predicted an increasing demand for formulating an ethical charter to regulate AI work, along with appropriate legislation that should be included in information crimes laws both nationally and internationally (Thabit, 2022). With the rapid diffusion of AI technologies and applications, regulating AI usage with customers and end-users has become one of the most pressing organizational regulatory issues (Alkashami et al., 2023; Khadragy et al., 2022a; Shwedeh, 2024; Shwedeh et al., 2020). Therefore, this research aims to investigate the responsible and sustainable use of artificial intelligence in strategic communication and digital marketing, targeting the following objectives:(i)observing the frames for responsible and sustainable AI usage in strategic communication and digital marketing in the sample, (ii) identifying government efforts' priorities to promote responsible and sustainable AI usage in general and in strategic communication and digital marketing specifically, and (iii) recognizing challenges related to responsible and sustainable AI usage in general and in strategic communication and digital marketing specifically (Dahu et al., 2022; Khadragy et al., 2022a; Ravikumar et al., 2022; Shwedeh et al., 2021).

Methods & Theory

The study uses a mixed-method approach, combining qualitative analysis of the discourse with quantitative analysis to identify recurring codes related to the institutional framing of ethical use of sustainable AI. It is descriptive studies, aimed at observing and analyze the criteria and indicative measures used to frame responsible AI and strategic communications and digital marketing. A textual analysis tool is employed to conduct organized qualitative and quantitative analyses of the study's texts. In the study we applied the framing analysis theory to create a scale of ten frames, including user privacy and data governance, user independence and self-control, reliable AI, transparency and explanation to the user, diversity and non-discrimination among users, the user's right to AI accountable and audit it, human agency and oversight, sustainability and welfare, safety& Robustness, and the rights of employee and employment.

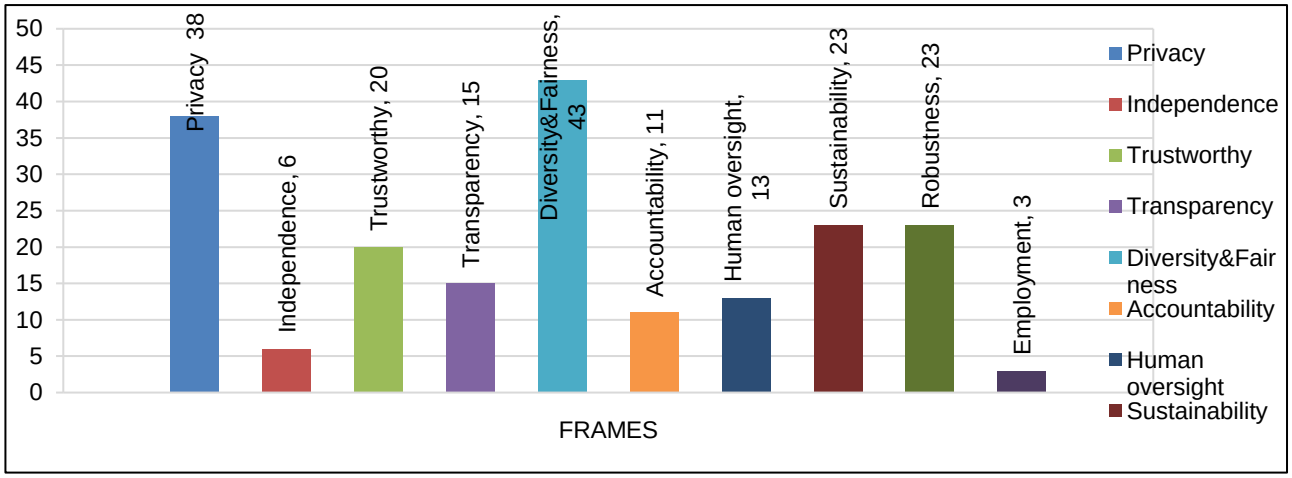
Results and Discussion

Results

The current study discusses the institutional framing of the ethical principles and guidelines of artificial intelligence (AI) for organizations. These guiding principles of AI charters shape the ethics of the organization. Although they are not legally binding, they clarify the priorities of organizations and their role in society. They serve as guiding documents for organizational behavior, strategic communication, and relationships with customers. In our study we present the results of the textual analysis of "AI ethics: Principles & Guidelines" in UAE. The analysis is based on ten frames: Privacy, Independence/Autonomy, Trustworthy, Transparency, Diversity& justice, Accountability,

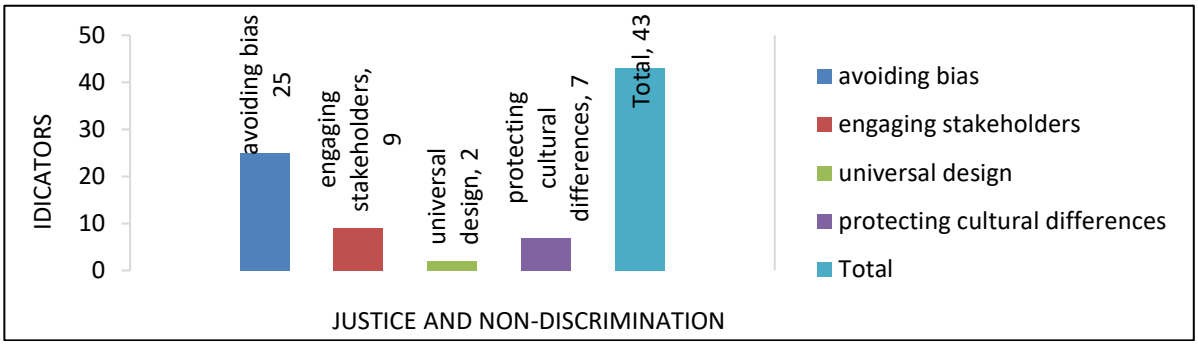
Human oversight, Sustainability, Robustness, and Employment. The following figure illustrates the priorities of the institutional framing for AI responsibility in the study sample.

Figure 1: The Priorities of institutional framing for responsible AI in the UAE



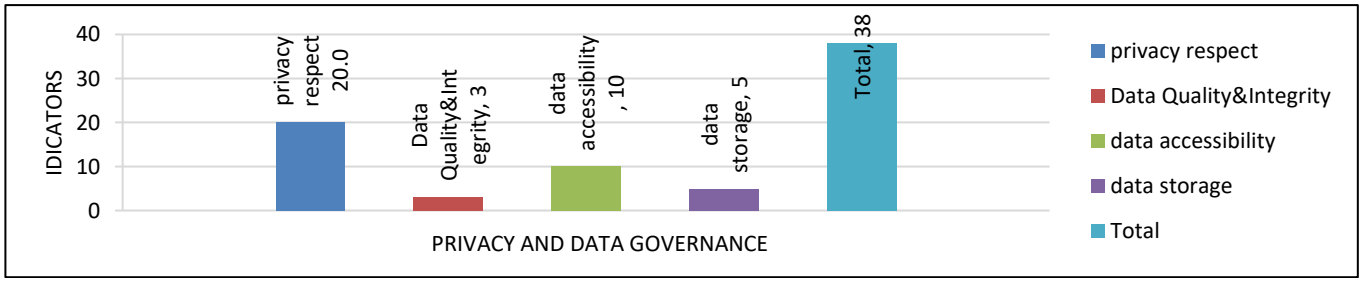
The results of the textual analysis indicated the diversity and justice frame topped the frames of AI governance in the sample texts, followed by privacy, then with equal frequencies, sustainability and technical safety, with low differences in trustworthy, then transparency and human oversight, then with low frequencies and small differences, independence and employment.

Figure 2: The frame of diversity, justice and non-discrimination between users



The research provides evidence for the priority of diversity, justice, and non-discrimination by 43%. This conclusion is supported by the recurrence of specific codes such as "bias," "fair," "equitable," "inclusive of groups," "stakeholders," "user differentiation," and "demographic inclusivity." The indicator "avoiding bias" was given the highest priority, followed by differences of over half for "engaging stakeholders" and "protecting cultural differences" The frequency of these indicators exceeded two-thirds compared to the indicator "global/universal design," which showed clear differences.

Figure 3: The frame of privacy and data governance in strategic communication & digital marketing



"Privacy and data governance" frame ranked second with a percentage of 19.48%. The inference was based on the following codes: (Consumer Protection Laws - Proprietary Data - Personal Data - Data Quality). Higher priority was given to the indicator 'Privacy Respect', followed by significant differences of up to half in the 'Data Accessibility' indicator. Subsequently, there were lower repetitions and clear differences in the indicators 'Data Storage' and 'Data Quality and Integrity".

Digital marketing and Big data

This framework is strongly linked to the organization's digital marketing governance currently and in the future, especially in relation to blockchain technology (BT), in the digital advertising system (Thabit,2022) this is supported by the findings of (Yun et al., Forthcoming).

Digital advertising in the future will tend to rely on Big Data & Data Mining, due to its importance in customizing advertising messages, improving targeting, segmentation and monitoring digital marketing campaigns in real time (Thabit, 2022),This confirmed by (Tahoun & Taher, 2022),As They found (AI)techniques will enhance the quality, and creating advertising content that combines the advantages of audience and personalization, (Lee & Cho, 2020) call it mass personalized adverting to promote role of (AI) in managing digital advertising in the future and systems for providing targeted Ads.

Figure 4: The frame of sustainability and community well-being

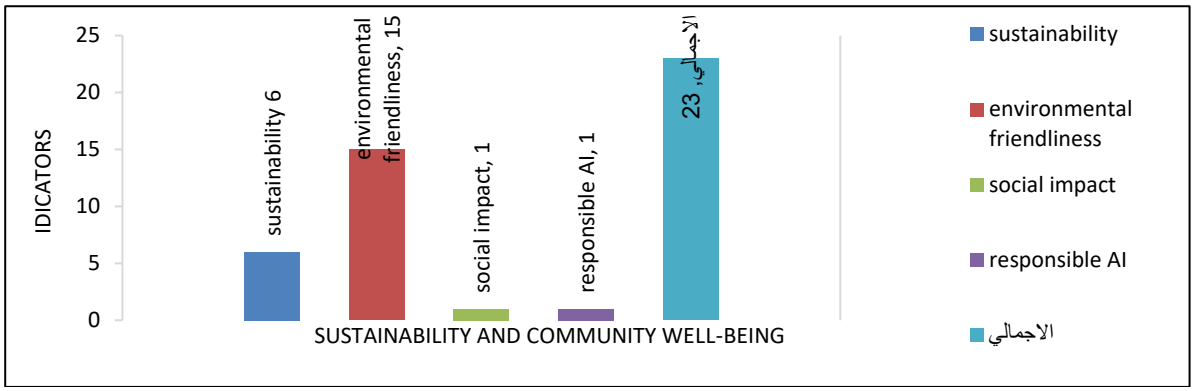
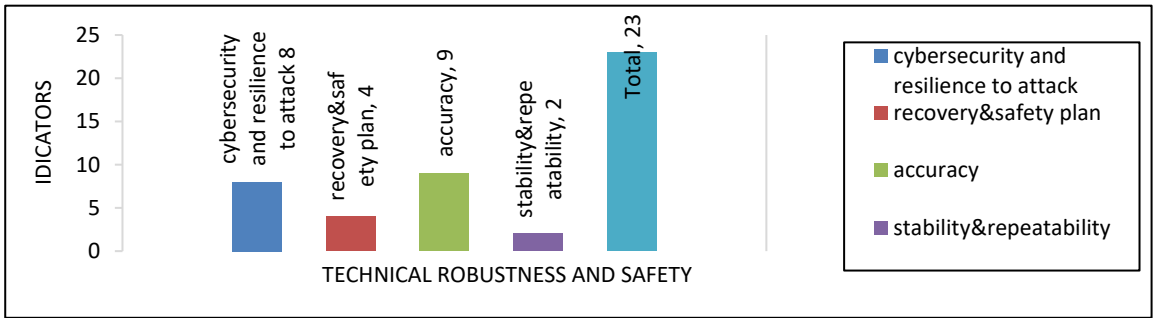


Figure 5: The frame of technical robustness and safety

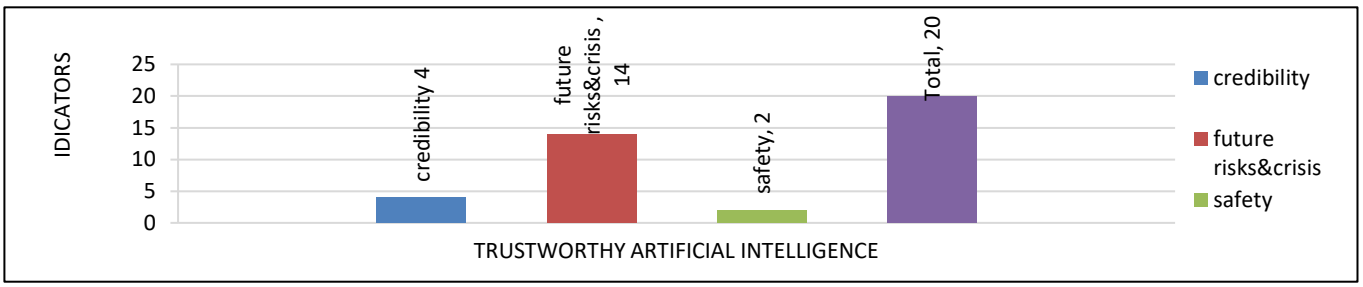


According to Figures 4 &5, the frame of "sustainability and well-being of society" was equally aligned with the frame of "technical robustness and safety".

The sustainability and well-being of society are provided with a percentage of 11.79%. It was identified with the following codes: sustainability- sustainable development/green, responsible usage. The" environmental friendliness" indicator was given the highest priority, followed by "social impact" "sustainability" In the third category "then "responsible AI". It is equally aligned with the frame of durability and technical safety, identified with the following codes: robust systems, security attacks, leaks, plan, crisis management, risk management, data accuracy, completeness of data, data poisoning, repeatability, and reproducibility. The "cybersecurity and resilience to attack" indicator

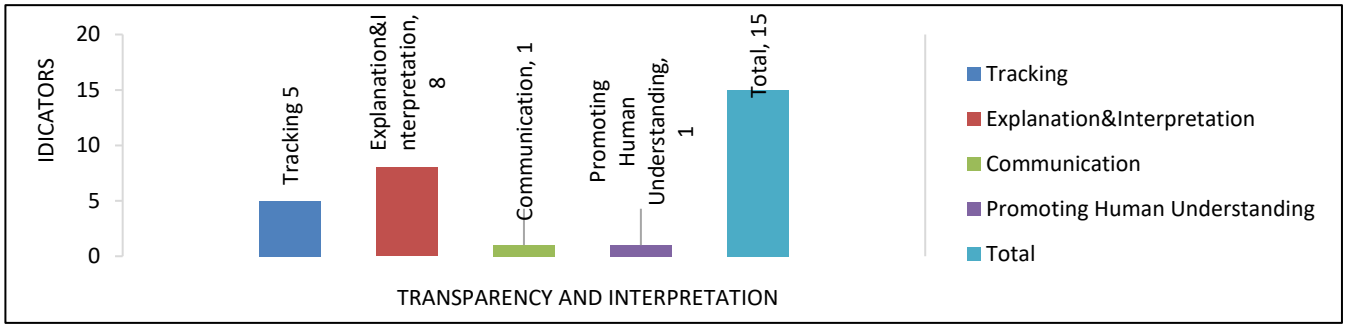
was given the highest priority, followed by "accuracy," then "recovery and public safety plan," "stability and repeatability".

Figure 6: The frame of trustworthy artificial intelligence



The reliable artificial intelligence frame ranked fourth with a percentage of 11.79% in the following areas: (Human-verified authentication, reliability, risk-free, user protection, safety standards). Priority was given to the indicator of "future risks and crisis management," followed by "safety" and "credibility".

Figure 7: The frame of transparency and interpretation for the user

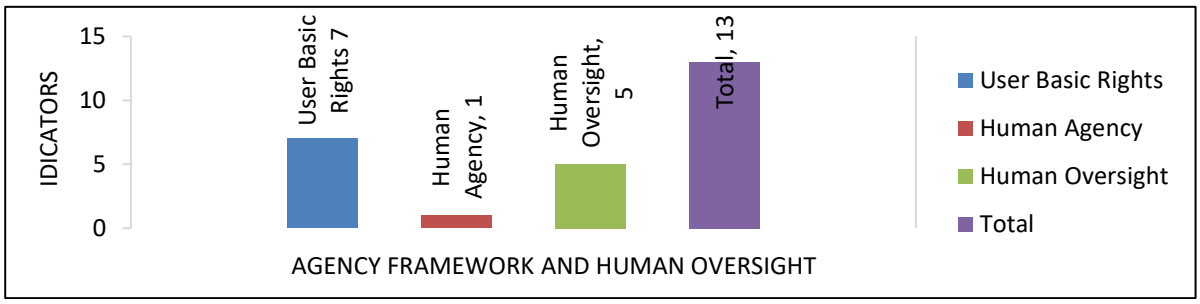


The research provides transparency and user understanding in the fifth rank with a percentage increase of 7.96% through the codes:(Tracking-Understandable language-Explanation- Interpretation-Awareness-Knowledge-Interacting with AI system). Priority was given to "Explanation and Interpretation" followed by "Tracking" then "Communication" with significant differences in "Promoting Human Understanding".

Figure 8: The frame of the user's right to accountability and auditing of artificial intelligence

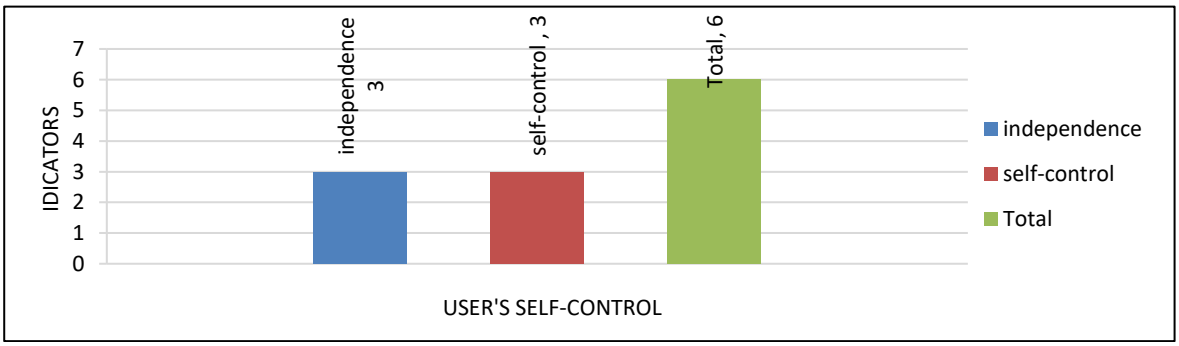
The indicators: "user rights frame for accountability and auditing of artificial intelligence" ranked sixth with a percentage improvement of 5.64%. This was inferred from the following codes:(audit, accountability, objection, appeal, automated decision challenge, harm).The priority was given to the "reporting negative impact" indicator, followed by"user compensation" and then with slight differences, "auditability and reviewability".

Figure 9: The Frame of Agency and human oversight of AI decision-making



The agency and human oversight frame for decision-making using AI achieved a 6.66% improvement in the seventh rank with the following codes: (Basic/Individual Rights-User Rights-Appointing Supervisors-Authentication-Monitoring). The indicator 'User Basic Rights' was given the highest priority, followed by 'Human Oversight' in slight differences and then 'Human Agency".

Figure 10: The frame of independence and user's self-control



In the eighth position, the independence and user's self-control frame for the user provides a 3.7% improvement. The inference was based on the following codes :(human control, management, and self-management ability). Priority was given to"independence/autonomy" indicator, which increased in frequency compared to “user self-control” indicator.

Figure 11 : The frame of Human Resource, employment and rights

"In the ninth and last position, the analysis showed a 1.53% representation of employee' rights and employment frame. This was inferred through the following codes: (employee training- roles for employees) with higher priority given to the "employee rights" indicator, followed in low differences by the indicators: "employment opportunities" and "support for entrepreneurship.

Challenges of Responsible (AI) In

Strategic Communication (SC)&Digital marketing (DM)

(Kostić & Šarenac, 2021)recommended the ethical issues of using artificial intelligence in marketing and public opinion research and their connection to customer privacy and the protection of their personal data(Johnson et al., 2022),By stopping using old

technologies to protect privacy, and building more alternatives that focus on privacy-centric changes, and the impact of this digital marketing strategy, targeting and measurement, the researchers referred to the term privacy-centric advertising.

In terms of the index of storing customer data, the results of the current study and(Roth-Cohen& Avidar, 2021) pointed at the ethics of storing data associated with the use using artificial intelligence applications by specialists in public relations for Big Data and processing it to contribute to profiling the habits of customers, despite the importance of this strategy in developing customer relationships with organizations,(Ibiricu et al.,2020)supported this as challenges faced by public relations practitioners, when using artificial intelligence to store data of users of digital platforms, social networks, and taking advantage of that data, this conflicts with the right to privacy (Dahu et al., 2022; Khadragy et al., 2022b; Salloum, Shwedeh, et al., 2023; Shwedeh, Aldabbagh, et al., 2023)

Regarding reliable(AI)frame, the current study agreed with the results of (Bronakowski, 2023) emphasizing the efforts made by organizations to protect users from electronic fraud based on(AI)techniques detect hacks, frauds, and misleading messages which designed to attract attention and urge users to click on the link, the results of the current study agreed with(Yosyali, 2021) and recommend Organizations' reliance on robots to manage social media platforms, crisis communication, public relations and digital advertising, and stressed the importance of detecting machine production of fake content.

Discussion

In terms of the importance of the user data privacy index, the results of the current study agreed with (Shibl et al.,2023) in terms of the importance of customers' personal data, which ranked first at 50%, compared to the data collected by (Ibiricu et al.,2020) who highlighted ethical challenges in storing customer data associated with the use of (AI) applications by experts in big data public relations and its processing to profile customers' habits, interactions, and preferences. Despite the significance of this strategy in developing organizational relationships, (Ibiricu, 2020) also supported this view.

Regarding transparency frame, the current study showed the importance of AI technologies in enhancing the quality of communication between customers and brands, as well as customers' response to organizational communication efforts, which agreed with (Cheng & Jiang, 2022) finding positive effects. On the other hand, the current results, in terms of diversity in instant messaging conversations and biases resulting from (AI), agreed with (Lu et al., 2020) in identifing cases of user comments that showed discrimination and bias against stakeholders on the basis of gender, and this was associated with processing data (Swiatek & Galloway, 2023). Moreover, the current study emphasized the need to involve stakeholders in the ethical institutional framing of AI, and suggested the development of comprehensive and global agreements. This was agreed by (Bélisle- Pipon et al., 2022) who showed that documents that include stakeholder engagement lead to more comprehensive ethical guidelines with broader applicability. However, the study's findings differed from some previous studies, suggesting a decrease in private sector stakeholder involvement in the development of ethical guidelines related to AI (Abdallah et al., 2022; Alkashami et al., 2023; Shwedeh, Aburayya, et al., 2023).

Regarding the sustainability frame, the current study indicated the importance of the responsible and sustainable use of artificial intelligence and its impact on the organization's strategic communication more over the importance of promoting sustainability reports on social media was also highlighted, as shown by (Maspul,2021) who discussed security vulnerabilities in strategic communication resulting from edits made on public wiki sites and the application of big data analytics.

In terms of the future of the responsible and sustainable use of artificial intelligence in digital marketing, the study, along with previous research findings, agrees on the

growing trend towards regulating advertising in general in the near and medium-term future. This includes digital advertising, especially in Western societies (European Union&America), which increases expectations of attempts to develop legislation in the field of privacy protection. regarding consumer rights, it is expected that the movement to protect digital consumer rights will increase in the future. Advocating organizations seek to reach appropriate legal formulations for marketing and digital advertising content, considering the variables that have occurred and will occur in the marketing environment and advertising communication. The current study agreed with (Rachmaniar, 2019) in supporting attempts to impose legal frames for recognizing the voices and attitudes of digital consumers. At the level of influencers' rights, the current study expected in the immediate and near future that influencers will demand compensation for the use of their name, image, and simulation, this is supported by (Nuss, 2022), who emphasized the need for new legislation to regulate brand deals in influencer marketing (Shwedeh, Malaka, et al., 2023).

The findings of the current study provide a framework to develop the role of institutional forces in regulating the use of Big-Data and its relationship to directing the organization's communication strategy while keeping in mind security gaps in strategic communication resulting from applying analytics Big data to avoid bias and safety risks. This agreed with (Illia, L.,et.al.2023)in pointing out the need for governments to review legislation and regulations related to(AI), to ensure appropriate supervision of the dissemination of content texts created by artificial intelligence agents and facilitate the strategic communication throw the appropriate, effective and safe channels.

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