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Ethical Implications of Artificial Intelligence Accessibility in the United Arab Emirates: Bridging the Digital Divide

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ABSTRACT

The swift progress of artificial intelligence (AI) brings forth significant ethical challenges, especially concerning equitable access and responsible use. This research investigates the ethical aspects of AI accessibility within the UAE, emphasizing how governance frameworks, strategic management tactics, technological advancements, and societal attitudes influence the ethical adoption of AI. Utilizing structural equation modeling (SEM) with ADANCO, the study assesses five primary hypotheses related to the impact of ethical AI frameworks, strategic leadership, decision-making instruments, cultural viewpoints, and emerging technologies on the responsible integration of AI. This research contributes to the ongoing discussion about narrowing the digital gap by underscoring the importance of regulatory coherence, collaboration across sectors, and education in AI ethics. Recommendations for future actions stress the necessity for policy improvements, interdisciplinary governance models, and ongoing evaluations of AI ethics to align technological innovations with the UAE's long-term digital transformation goals.

Keywords: Artificial Intelligence, AI Ethics, Digital Divide, UAE, Ethical AI Adoption, AI Governance, Structural Equation Modelling
JEL Classifications: O33, O57, O63

1. INTRODUCTION

The global economy is being disrupted by Artificial Intelligence (AI) and the United Arab Emirates (UAE) is no exception. The UAE, as a strategic hub, has been quick to adopt AI to free its economy from dependence on oil. AI uses a spectrum from healthcare to education, finance and infrastructure. The UAE, a pioneer in digital innovation, aims to use AI to increase productivity, transform public service delivery and achieve economic competitiveness. However, these successes give rise to various economic and social hurdles, including unemployment, poverty and inequality — issues, which need to be critically assessed in order to determine the best possible policies (Currie et al., 2020; Gerke et al., 2020; Nguyen et al., 2023).

The pace at which Artificial Intelligence (AI) is being adopted in the UAE is truly overwhelming but serves the end goal of securing its place as a safe haven for technical and tech savvy talents. Yet, the most fundamental research question concerning AI, in terms of its broader socioeconomic impacts—on employment, income distribution and social mobility—is arguably still very under-researched. Although AI holds possibilities for increasing efficiency and fostering economic growth, it also opens doors to many risks especially in the labour market. Automating existing human labour practices notoriously have the potential to displace employment, principally so in low-skill workforces, which a large proportion of the UAE population is constituted being an expatriate workforce (Anakpo and Kollamparambil, 2022; McGaughey, 2022).

Given this unique economic structure and its ambitious AI strategy, the case of UAE is ideal to study the socioeconomic impacts of AI. The UAE, being a high-income country with a small population, has enforced AI as a top engine of economic diversification and

growth. As part of the UAE 2031 Artificial Intelligence Strategy, initiated by the country's leadership and based on a long-term economic vision for AI, as announced in secondary sources (Reis et al., 2020; Robles and Mallinson, 2023; Drake et al., 2022). The plan is part of the government's broader strategy to use artificial intelligence in areas such as health, transport, energy and education.

2. LITERATURE REVIEW

The significance of AI ethics in the UAE is essential to governing the development, deployment, and monitoring of artificial intelligence in a way that reflects societal values, fairness, and transparency. Ethical considerations are gaining more relevance as artificial intelligence or AI technologies infiltrate each sector such as finance, healthcare and public administration. Ethics will ensure responsible use of AI to prevent discrimination, protect privacy, enhance fairness, and help maintain public trust. Certainly, as the UAE is aiming to become a pioneer in AI innovations, high ethical standards for AI deployments are essential for preventing possible adverse effects on society especially considering that this nation is home to a highly diversified population with an overwhelmingly strong component of expatriates (Mutascu et al., 2021; Currie et al., 2020).

Preventing algorithmic bias is one of the UAE's core ethical concerns as this takes place when AI systems make biased decisions in favour of one group by Active formula. This can be especially worrisome in a multi-cultural environment where AI applications like the ones of hiring algorithms, loan approvals, etc. need to ensure each demographic group is treated fairly. Ethical frameworks call for the effective design and ongoing auditing of AI algorithms to identify implicit biases and eliminate their impact. In this sense, having transparency and accountability would enable the users to comprehend and deal with any issues before leads to an undesirable solution generated by AI (Davis et al., 2021).

Privacy is also one of the pillars of AI ethics in the UAE as many AI apps are based on data collection. As the focus on data-driven insights has increased, protecting data has become a need to prevent personal information from being exploited. In sensitive sectors such as healthcare and finance, where AI solutions manage vast amounts of personal data, authorities in the UAE have drawn up guidelines to safeguard user information. The relevance of data privacy and consent in the AI Act is high, especially in the contextualization of UAE government with respect to building responsible AI systems that abide by people's rights while encouraging transparency in data handling practices (Nguyen et al., 2023).

Another important ethical dimension when it comes to AI is accountability. The algorithms that drive AI are complex and opaque, meaning we need clear boundaries on who is liable in cases of malfunctions or harmful decisions coming from an AI. As per the UAE policies, companies and public institutions must ensure that accountability persists in AI operations by ensuring human oversight within automation. This problem is spurred more in high-stakes domains like autonomous vehicles and health care diagnostic, wherein errors lead to extreme penalties. AI ethics insists that humans retain decision-making power and accountability when using language models, which mitigates the dangers of unrestrained AI use (Brendel et al., 2021).

The UAE's framework to promote ethical AI is in line with the principles set by OECD's AI Principles as well as EU's ethics guidelines for trustworthy artificial intelligence. With the UAE AI Ethics Framework, among other initiatives it is adopting over time; the nation seeks to create a positive responsible AI ecosystem free of harm, which benefits society and aligns with public values. It indicates that these ethical standards are not merely complementary to AI policy but also a fundamental part of any sustainable model for the implementation and practice of AI in urban lives as it helps generate public trust in technological advancement while assuring that the benefits reach every rung of society. The UAE, by embedding ethics into AI policy and practice aims to become a leader in responsible AI where innovation is balanced with social responsibility.

2.1. Theoretical Development

AI is pervasive, and it is time for a discussion of ethical considerations of AI importance to these and other diverse applications, particularly in their socio-cultural, organizational, and technologically mediated aspects (Lo Piano, 2020). Drawing upon various frameworks, ethical lenses, and images, this research studies the intersection between AI and ethics, with variables such as ethical paradigms, innovative tools, strategic management notions, review of ethics, and new AI technologies (Brendel et al., 2021).

Abiding by an ethical framework, such as deontological ethics that focuses on universal principles such as fairness, privacy, and accountability, is a good place to start. This theory is based on Kantian philosophy and emphasizes duty-bound action, regardless of the results, and supports the creation of transparent and fair AI systems. This helps shape policies that promote responsible innovation as well as ensure trust and protection of individual rights (Yu and Yu, 2023).

Also known as the socio-technical systems theory, this theory evolves technology, organizational structures, and human behaviour, emphasizing the importance of harmonizing technological innovations with social needs. This involves the use of tools such as explainable AI (XAI) and governance platforms in ethical decision-making, helping to build trust and collaboration between the involved parties (Goglin, 2023). Thus, this theory also facilitates the design of AI systems with diverse stakeholders in mind by looking at the socio-technical environment (Stahl et al., 2023).

The social construction of technology (SCOT) is a theory that proclaims that societal values and sociocultural norms influence and are influenced by technological developments. It offers insight into the changing landscape of moral representations, making it clear that societal views on AI are not static but rather influenced by the broader culture, politics, and economics (Nath and Manna, 2023). SCOT highlights the interdependence of technology and society, showing how ethical norms change as technological development advances (Lo Piano, 2020).

Technological determinism examines how new developments in technology shape social change and moral progress. It is especially pertinent in considering the role of emergent AI technology, like autonomous systems and generative AI technologies, in the upholding of ethical practices (Gerke et al., 2020).

These theories, combined, would provide a cohesive framework within which one can better understand the relation of AI and ethics. These threads highlight the interconnected nature of underlying principles, pioneering approaches, social attitudes, and technological progress, forming a holistic perspective on addressing ethical concerns surrounding AI (Brendel et al., 2021; Currie et al., 2020). The contextualized synthesis highlights the importance of interdisciplinary collaboration and adaptive strategies for aligning AI development and deployment with ethical and societal objectives in a rapidly evolving global environment (Taddeo et al., 2021).

2.2. Research Model and Hypotheses Development

2.2.1. Ethical frameworks and paradigms

AI frameworks are sets of guidelines that provide foundation for ethical and responsible application of artificial intelligence across industries. In the UAE, AI frameworks are critical to ensuring national values and legal aspects of human development match and keep pace with fast-moving developments in AI technologies, enabling transparency, accountability and inclusivity while providing guidance on the design, implementation, and use of such emerging technologies (Díaz-Rodríguez et al., 2023). The UAE's AI Ethics Framework, along with others, can help navigate the challenges of data privacy, algorithmic fairness, and user accountability. These frameworks serve as a basis to assist institutions in implementing processes around monitoring, assessment, and risk management of the institution's responsible AI use (Mutascu, 2021).

Sensible frameworks can put a bridge between AI inherent technological potential and ethical worries, these standards target towards bias, transparency, and data misuse risks. Such frameworks could include pre-deployment bias testing of AI algorithms and periodic reviews to verify if AI exceeds legal or ethical threshold (Pereira et al., 2023). In addition, frameworks can foster inclusivity by requiring that AI systems be built for wide-ranging demographics and do not exacerbate societal inequities. This indicates the UAE focus on principles that can ensure developing responsible AI for variety of population groups (Reis et al., 2020).

The frameworks also promote global alignment, and the UAE has leveraged various international standards—such as those set by the OECD—to ensure its own AI policies are at least on par with others worldwide (Ayling and Chapman, 2022). UAE approaches responsible AI through established frameworks, establishing itself as a leader to protect and care for the people of the UAE by creating an ethical model that can be replicated by other countries (Bankins and Formosa, 2023). Such commitment to global ethical standards guarantees that AI technology in the UAE undergoes a process consistent with local and global value structures, thus balancing innovation with societal trust (Ashok et al., 2022).

H_1: The presence of well-defined ethical frameworks and paradigms positively influences the adoption of ethical AI practices in organizations.

2.2.2. Strategic management approaches

AI management is the UAE facilitates deployment of AI systems in a responsible manner, according to set ethical and operational goals. Good practice in management includes developing an internal policy on the use of AI in your organization, for example protocols for how you will deal with data, make decisions and accountability mechanisms. AI management in high-stakes sectors like healthcare and finance also involves risk assessment and mitigation strategies to deal with specific ethical concerns i.e., privacy, bias, and transparency (Liu et al. 2020).

Organizations in the UAE embrace a collaborative approach for effectively managing AI which involves cross-functional teams including technical experts from data scientists to business executives, policymakers, and legal practitioners (Ashok et al., 2022; Stahl et al., 2022). Such collaborations foster sound strategies on how to implement AI that are not just technically viable, but also ethical. The AI management further promotes transparency since regular audits and reviews are needed that is especially true for the sectors relying on public trust. By concentrating on open AI governance, the UAE shows its dedication to ensuring that the deployment of AI is safeguarded in an accountable manner (Drake et al., 2022).

Furthermore, AI management cultivates continuous improvement by making sure that employees are trained in ethics, and it becomes part of the larger fabric of behaviour within organizations. When trained to detect the ethical implications of how to use AI, employees will be empowered with this initiative-taking approach to solve issues by making fair decisions (Medaglia et al., 2023). Such an awareness culture is necessary in the UAE's rapidly changing AI ecosystem that requires both organizations and communities to adapt quickly as new ethical objectives and regulatory frameworks take shape. By focusing on sound AI governance, the UAE is laying a great groundwork for sustainable, ethical evolution of AI and cementing its role as an innovative frontrunner in the global landscape of artificial intelligence (Ameyaw et al., 2024; Kelley, 2022).

H_2: Strategic management approaches that prioritize ethical considerations significantly enhance the likelihood of ethical AI adoption.

2.2.3. Innovative tools and applications

AI Tools are the technologies and resources that provide guidance in developing, executing, and monitoring artificial intelligence systems ethically and efficiently. AI tools in UAE Application AI tools may apply to machine learning formulae and data representation and analytics platforms that aim to improve organizational process execution and decision making across several sectors. The AI models created using these tools can harness powerful datasets, automate simple tasks and reveal trends that lead to policies or business decisions (Bowler-Smith, 2021). Nonetheless, AI frameworks in the UAE emphasize that these tools must be used responsibly and transparently.

Through an ethical lens, many AI tools that are selected and configured in the UAE also aim to tackle some of the key issues or challenges like bias, transparency, and accountability. One example is that bias-detection tools are embedded in AI to catch unintended biases in algorithms, especially in the context of applications for hiring, lending or legal decisions (Schultz and Seele, 2023; Solanki et al., 2023). Data governance tools are also used to run certain checkpoints to monitor the compliance of privacy regulations and standards of data security, an essential requirement for securing user data common amongst healthcare and finance domains (Giering et al., 2021).

In addition to this, regulatory guidelines are in place for AI tools requiring regular evaluation and maintenance to conform that the AI program is safe, accurate and ethical (Georgieva et al., 2022; Borsboom et al., 2021). The UAE integrates technical capabilities with ethical obligations in its choice of AI tools, ensuring effective as well as responsible implementation of the technology, building trust among the communities it serves. Such practices underscore the UAE's balanced approach to AI, one that takes innovation alongside responsibility towards people (Pereira et al., 2023).

H_3: The availability and implementation of innovative tools and applications for ethical decision-making facilitate the adoption of ethical AI systems.

2.2.4. Evolving ethical notions

UAE ethical concepts are based on fairness, transparency and systems accountability associated with AI utilization. These concepts form the foundation of the ethical framework in which AI technologies should function, allowing the consideration of its development and use with respect to its rights. For instance, AI fairness, which ensures that algorithms do not reflect societal bias is relevant in a culturally diverse country such as the UAE. For the citizens to be able to trust what will come out of AI-driven outputs, being transparent while using them regardless of the decision over policy must take place so that citizens can know how things are happening related to their lives (Heinrich and Witko, 2021).

Another fundamental concept for AI ethics is accountability, which states that organizations must be held accountable for the results produced by their used AI systems (Rehman et al., 2024; Díaz-Rodríguez et al., 2023). For entities, whether in the public or private sector using the technology to deploy AI systems within the UAE must provide unambiguous protocols regarding human oversight of AI specifically those in critical areas like law enforcement and medicine. This partial exclusion would deter the misuse of AI as these standards will remain relevant and exercised to ensure ethics are established at every technological evolution step (Alhashmi et al., 2019; Barbosa et al., 2022). Then, these ideas represent the UAE's higher dedication to developing an ethical AI framework with a focus on the public good (Nguyen et al., 2023).

By embracing these ethical concepts, the UAE is establishing a responsible AI model that can be a reference for other nations. The UAE is paving the way for AI to promote good while maintaining culture and personal values, through creating an ethical environment that focuses on fairness, transparency, and responsibility (Morley et al., 2023; Giering et al., 2021).

H_4: Changes in societal and cultural perceptions of ethics are positively correlated with the adoption of ethical AI practices.

2.2.5. Emerging AI technologies

The UAE has witnessed a proliferation of AI technologies, and while this presents wide deployment possibilities for ethical AI, it also brings with it several challenges. Natural language processing, computer vision, and predictive analytics are among the technologies driving expanded uptake across various fields in health care, finance, public administration, and more. These tech opens tons of ground-breaking improvements in performance and precision, flipping the modern style of operations on its head to deliver more effective services. That said, the rapid advancement of these technologies exposes potential ethical challenges via their immense power to prime, process and analyse large datasets that can pose risks to privacy, transparency and accountability (Reis et al., 2020).

The UAE strategy on AI Technologies does not only include sponsoring innovations but also establishing moral standards within the tech frameworks (Ameyaw et al., 2024). AI systems can be subjected to strict data privacy regulations if they process personal data, and legislation guarantees the rights of individuals. Also, AI technologies that affect public policy decisions are tested more rigorously so they meet the bar of not introducing unfair biases against marginalized communities (Brendel et al., 2021).

The UAE aims to benefit from innovative AI technologies, while minimizing the risks through a responsible ethical framework. This balanced approach, on the other hand, will ensure that technological advancement acts as an enabling force that emerges from within the productive landscape of the country for better productivity and quality of life (Bera and Rahut, 2024; Ai and Bhandari, 2021). The UAE leads in AI development in the region and sets an example at the international level as to how ethical behaviours can be embedded into technology processes so that those advances benefit society overall (Medaglia et al., 2023; Bankins and Formosa, 2023).

H_5: The integration of emerging AI technologies with built-in ethical safeguards increases the adoption of ethical AI in organizational settings.

3. RESEARCH METHODOLOGY

The questionnaires used for data collection from consumers were mostly online and a few offline using hard copy. The questionnaire was tested with 20 participants which has helped to improve the questionnaire. Out of a total of seventeen questions for the final questionnaire (i.e. questions which target general understanding about Ethical Frameworks and Paradigms, Strategic Management Approaches, Innovative Tools and Applications, Evolving Ethical Notions, Emerging AI Technologies). Four questions also were aimed to gather demographic data such as gender, age, nationality, region and work profile. Responses were measured on a five-point Likert scale, where 1 indicated Strongly Disagree and

5 indicated Strongly Agree. Data were collected from Middle Eastern Professionals: Leaders, Innovators, and Changemakers throughout the business of the Middle East, Europe, North America, and the UAE a unique community of experienced professionals, up-and-coming executives, and budding leaders are paving the way for the future of the region. A cohort of resilient, visionary leaders in their 30+ that hailed from a wide range of industries; spanning finance, technology, corporate strategy, etc. They are adept at navigating complex market challenges and have emerged as pivotal decision-makers, tasked with guiding organizations toward sustainable growth and competitiveness.

This cohort of professionals is a blend of experience and innovation, with veteran leaders guiding mentees and young professionals injecting fresh perspectives into traditional problems. The data collected from the questionnaire was analysed through ADANCO 2.0 to a build process model using a variance-based structural equation. Variance-based Structural Equation Model (SEM) generates proxies as linear combinations of observed variables first and next applies these proxies to estimate the model parameters. The approach is widely used because it offers modelling over chosen independent variables and incorporates all potential forms of measurement error to examine a theory in totality.

3.1. Measurement Model

Common method bias was tested through confirmatory factor analysis (Chang, Van & Eden, 2010). The model was tested in ADANCO 2.0, which presented the model fitness. The standardized root mean square residual (SRMR) value was 0.0288 where SRMR <0.08 is generally considered a good fit (Hu and Bentler, 1999).

The hypothesis was tested through t-test (Armstrong and Overton, 1977) where respondents with missing demographic values were considered non-respondents (Seng Kam and Meyer, 2015). All the constructs' data were not found to be significantly different. The reliability was assessed using Cronbach's alpha value (α), and Jöreskog's Rho (ρc) where all the values were considered acceptable since Cronbach's alpha, and Rho was much higher than 0.7 (Cronbach, 1951) as shown in Table 1. The researchers assessed the research model by assessing the convergent validity by factor loading and composite reliability measures (Hair et al., 2016) convergent validity as recommended by Hair et al. (2016) with factor loading of 0.7 and above, average variance explained (AVE > 0.5), and composite reliability (>0.7) as shown in Table 2. All the values exceeded the threshold suggested, and thus, the convergent validity was confirmed. The discriminant validity was examined by comparing the correlation between the constructs and the square root of AVE following the guidelines from Fornell and Larcker (1981), whereby the square root of the average variance extracted should be higher than the row and column values of the correlations (Bhattacharjee et al., 2004). All the values on the diagonal exceeded the row and column values, thus confirming satisfactory discriminant validity as highlighted in Table 3.

To determine model reliability, Cronbach's alpha (Cronbach, 1951; Sijtsma, 2009) and Jöreskog's Rho for composite reliability

Table 1: Reliability

Construct	Dijkstra-Henseler's rho (ρ_A)	Jöreskog's rho (ρ_c)	Cronbach's alpha(α)
Ethical AI Adoption	0.9390	0.9386	0.9385
Innovative Tools	0.7685	0.7685	0.7685
Strategic Management	0.7764	0.7762	0.7762
Ethical Notions	0.8253	0.8253	0.8253
Emerging Technologies	0.8634	0.8634	0.8634
Ethical Framework	0.8433	0.8431	0.8430

Table 2: Convergent validity

Construct	Average variance extracted (AVE)
Ethical AI adoption	0.7536
Innovative tools	0.6240
Strategic management	0.6343
Ethical notions	0.7025
Emerging technologies	0.7596
Ethical framework	0.7288

Table 3: Direct relationships

Construct	(β) Coefficients	Standard error	t stat	P-value
Intercept	0.2782	0.1306	2.1309	0.0338
Innovative tools	0.1741	0.0476	3.6605	0.0003
Strategic management	0.1238	0.0421	2.9383	0.0035
Ethical notions	0.2515	0.0547	4.6011	0.0000
Emerging technologies	0.1301	0.0430	3.0293	0.0026
Ethical framework	0.2625	0.0471	5.5732	0.0000

were used (Wertz, 1978). Convergent validity assesses the degree two measures of constructs should be, in fact, hypothetically related. An acceptable value for the average variance extracted (AVE) should be ≥ 0.5 (Campbell and Fiske, 1959; Carlson and Herdman, 2012).

3.2. Structural Model

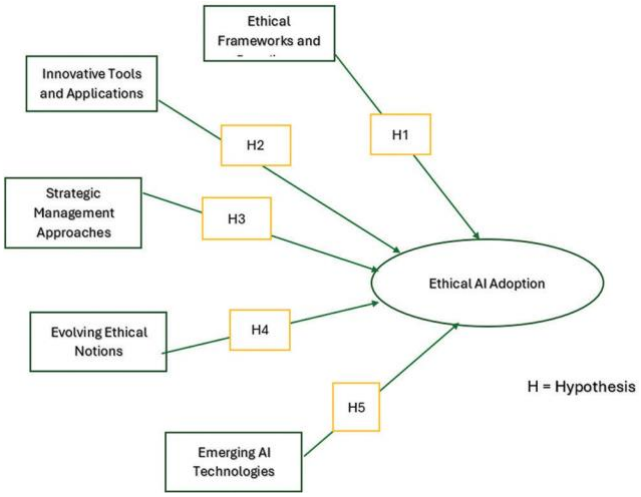
As presented in Figure 1, to test the hypotheses, the process macro was used, utilizing an indirect bootstrapping method (Preacher and Hayes, 2004, 2008). The bootstrapping analysis demonstrated that mostly all the relations were significant as indicated by Preacher and Hayes (2012). The research concludes that the mediation effect is statistically significant which indicates that though all the ten hypotheses were supported, a few were supported marginally whereas others were supported very strongly as highlighted in Table 3.

4. FINDINGS AND DISCUSSIONS

The analysis and discussion of the findings are provided below in line with each of the study hypothesis and its results. Table 3 provides a summary of the results of the hypothesis testing in the study.

H_1: The presence of well-defined ethical frameworks and paradigms positively influences the adoption of ethical AI practices in organizations ($t = 5.5732$, $\beta = 0.2625$, and $P < 0.05$) was strongly supported.

Figure 1: Research model and Hypotheses



AI frameworks are essential for maintaining ethical AI practices across industries. By providing clear guidelines for data privacy, algorithmic fairness, and user accountability, they ensure that businesses can innovate responsibly while aligning with national values and legal expectations (Díaz-Rodríguez et al., 2023). UAE ensures whether in healthcare, finance, smart cities, or retail, AI frameworks empower industries to harness AI's potential while safeguarding individuals and communities Abdul-Al (2024). The UAE's AI Ethics Framework ensures that medical AI applications comply with privacy laws such as the UAE Data Protection Law preventing unauthorized data access and ensuring ethical AI-driven medical decisions (Rehman et al., 2024). Emirates NBD's AI-driven financial risk management ensures algorithmic transparency in customer profiling (Bankins and Formosa, 2023). Abu Dhabi's Safe City initiative uses AI for real-time monitoring while adhering to ethical guidelines for citizen privacy. Noon and Amazon UAE use AI-driven recommendation engines, adhering to UAE data protection laws and ethical AI marketing standards (Ashok et al., 2022). Noon and Amazon UAE use AI-driven recommendation engines, adhering to UAE data protection laws and ethical AI marketing standards (Ezmigna et al., 2024).

H_2: Strategic management approaches that prioritize ethical considerations significantly enhance the likelihood of ethical AI adoption ($t = 2.9383$, $\beta = 0.1238$, and $P < 0.05$) was strongly supported.

Strategic management is the key to ensuring AI adoption is in line with both organizational ethics and goals. For companies that implement structured governance of their AI, algorithmic bias, data privacy failure, and violations in regulation such as Sarbanes-Oxley are prevented (Ashok et al., 2022; Stahl et al., 2022). It also means that ethical strategies will lead to a higher public trust in a business and its growth prospects (Bankins and Formosa, 2023; Haenlein et al., 2022).

In the UAE, both government and corporate entities are incorporating ethics into their strategic management approaches for long-term action on AI. This work is apparent in the UAE National AI Strategy 2031 which lays down governance models mandating those principles from individual industries (Bareis and Katzenbach, 2022). Dubai Health Authority uses AI-assisted diagnostics but designates patient diagnosis is carried out in accordance with embalmed medical rules and only patients' privacy laws are not violated (Ho et al., 2019; Gerke et al., 2020). Similarly, First Abu Dhabi Bank (FAB) makes use of AI in credit risk assessment, with product governance to prevent such discrimination (Ameyaw et al., 2024; Kelley, 2022).

By incorporating ethical considerations into their AI management strategies, UAE organizations can innovate in a new way that is geared towards responsibility and at the same time prevent some of the less desirable consequences (Medaglia et al., 2023).

H_3: The availability and implementation of innovative tools and applications for ethical decision-making facilitate the adoption of ethical AI systems ($t = 3.6605$, $\beta = 0.1741$, and $P < 0.05$) was strongly supported.

It is essential for AI tools and applications to be equipped with ethical safeguards in the making-of-making decisions as only this can minimize bias improve transparency accountability (Ayling and Chapman, 2022; Stahl, 2021). Also, it is vital that when reflecting AI solutions used within decision-making processes with regular regulatory oversight as well as ongoing appraisal brief period in line morality requirements (Schultz and Seele, 2023; Solanki et al., 2023).

In the UAE, several industries are now turning to AI tools in their pursuit of responsible decision-making. Abu Dhabi National Oil Company (ADNOC) uses AI-powered predictive analytics for operational efficiency while keeping in line with environmental sustainability and safety compliance (Almarashda et al., 2021; Birhane et al., 2022). Dubai Courts uses AI-powered legal analytics tools capable of analyzing case precedents in reference cases, thus keeping legal judgement fair and open (Drake et al., 2022; Dhirani et al., 2023). One of the biggest telecoms in the UAE, Etisalat, uses AI to help manage customer service while keeping to guidelines in ethical data use (Georgieva et al., 2022; Borsboom et al., 2021).

Across industries, the use of AI ethics dashboards, algorithm auditing tools and explainable AI (XAI) modes has greatly improved decision-making processes which also comply with UAE regulations (Pereira et al., 2023).

H_4: Changes in societal and cultural perceptions of ethics are positively correlated with the adoption of ethical AI practices ($t = 4.6011$, $\beta = 0.2515$, and $P < 0.05$) was strongly supported.

Public attitudes and cultural perspectives contribute deeply to how AI is adopted and whether or not ethical standards are enforced. Public awareness and acceptance of AI technologies affect regulatory decisions, consumer trust and the AI strategies of organizations themselves (Hanna and Kazim, 2021; Ayling and Chapman, 2022). In the UAE, cultural diversity a strong emphasis on ethical governance both shape the responsible use of AI (Schultz and Seele, 2023; Stahl et al., 2023).

The UAE AI Ethics Framework was designed to fall in line with the anthropological ethos of Islam; likewise, it makes AI use consistent with local moral norms and privacy considerations are always considered (Rehman et al., 2024; Díaz-Rodríguez et al., 2023). AI-driven customer relationship management solutions have been implemented at both Noon and Amazon UAE (Ezmigna and Omain, 2024; Albanese et al., 2021). These systems are compliant with UAE data protection laws and take into consideration local cultural norms, such as those regarding personalized recommendations designed to give customers the right information at just the right time Dubai Police AI surveillance systems is run under strict ethical guidelines (Alhashmi et al., 2019; Barbosa et al., 2022).

This allows the Police to maintain the balance between public security and individual rights of privacy. With growing attention on AI ethics, companies must refine AI practices to dovetail with the changing expectations of society in order to gain both trust and large-scale acceptance (Morley et al., 2023; Giering et al., 2021).

H_5: The integration of emerging AI technologies with built-in ethical safeguards increases the adoption of ethical AI in organizational settings ($t = 3.0293$, $\beta = 0.1301$, and $P < 0.05$) was strongly supported.

AI is rapidly changing reality and news feeds. Machine Learning, Natural Language Processing (NLP) and Generative AI are the main players in this process (Morley et al., 2023; Stahl et al., 2023). However, adoption must be accompanied by ethical safeguards to prevent a range of underlying risks including misinformation, bias and security vulnerabilities. Entrenching an ethical tone right at the start One cannot overstress how important this is throughout a company's life cycle (Georgieva et al., 2022; Bailey, 2022).

AI adoption is speeding up across sectors in the UAE, while still satisfying ethical frameworks. Dubai International Financial Centre (DIFC) uses AI to check financial regulatory compliance, detect fraud and ensure that trading conditions are equitable (Ameyaw et al., 2024). Mubadala Investment Company applies AI-based investment analytics with embedded transparency measures to counter algorithmic bias (Georgieva et al., 2022). The Roads and Transport Authority (RTA) in Dubai uses AI-driven autonomous transportation solutions while adhering to ethical AI standards for safety and accident prevention (Bera and Rahut, 2024; Ai and Bhandari, 2021).

Adding ethical safeguards in AI development can let UAE organizations enjoy the benefits of advanced AI while keeping it fair and open with a rock-solid security foundation (Medaglia et al., 2023; Bankins and Formosa, 2023).

5. CONCLUSION, IMPLICATIONS, AND FUTURE RECOMMENDATIONS

5.1. Conclusion

The research discussed the ethical aspects of AI being accessible/prevalent in the UAE, presenting how ethical guidelines, strategy planning, innovative tools, changing ethical constructs, and cutting-edge AI technologies lead to ethical AI adoption regimes. The results provide supportive evidence of the potential relationship between structured ethical guidelines and the establishment of ethical AI implementation within firms. Additionally, institutions applying strategic management approaches to consider these ethical conduits show greater benefits of responsible AI deployment. Both innovative tools and applications for ethical decision making were identified as facilitators of adopting ethical AI into organizations, as they help maintain transparency and accountability. Moreover, changes in societal and cultural attitudes to ethics also influence the acceptance and responsible use of AI. It believes that effective incorporation of emerging AI technologies with embedded ethical safeguards serves to strengthen the implementation of ethical AI in firm and government entities. By doing so, the study adds to the empirical work in the area of AI ethics, helping to illuminate the ways that AI governance can be structured in accordance with ethical considerations. Constituting an emerging, yet already sound model for other countries wishing to deploy ethical AI solutions, the UAE's regulatory and governance mechanisms for AI were lauded.

5.2. Theoretical and Practical Implications

5.2.1. Contributions to theory

This study adds to both the ethics of AI literature and the literature on action in practice through drawing on multiple theoretical perspectives (including ethical frameworks, socio-technical systems theory and strategies of management) to describe how ethical AI adoption occurs in practice. Providing a structured model, the study also charts the interaction between ethics and technology, bringing AI governance closer to the theories of organizational behavior.

Angled this way, the research adds to conversations around technological determinism and social construction of technology (SCOT) with respect to AI ethics, and how regulatory regimes and societal norms influence how technologies are created. The study defines key factors that shape AI uptake that provide a foundation for further theoretical work on governance of ethical AI, corporate social responsibility, and policy making.

5.2.2. Practical implications

These must pay a role in shaping the algorithms for the current era, and for policy makers and industry; the findings act as a map for being sagacious when it comes to adopting AI within an organization, and what needs to be considered to maintain AI deployments in coherence with national and global ethical standards. Organizations in AI-intensive sectors such as finance, healthcare, public administration can apply the study's results to improve their governance frameworks to meet ethical standards and regulatory obligations. The study also emphasizes the need for ongoing training and awareness-raising on the ethical implications of AI for its developers and users. A culture of accountability and transparency, can help organizations minimize the risks of AI bias, data privacy breaches and algorithmic discrimination. The framework has implications beyond national borders, serving as a model that other countries can adapt to improve their own AI governance framework.

5.3. Future Recommendations

Taking the findings into considerations, some recommendations are made in order to improve the adoption of ethical AI in organizations and governance frameworks: AI regulatory frameworks may benefit from adjustments by policymakers as they advance dynamic regulatory updates considering the new challenges emerging in the ethics space. This encompasses the evolution of laws joining best practices for AI use in organizations. AI Ethics Compliance: Similar to compliance regulations, organizations need to adhere to the principles of ethical AI and address the rapidly evolving landscape of technology. Setting up AI literacy programs at educational institutions would also be beneficial to ensure that upcoming professionals are trained in the new skills set.

Empowering Public Engagement in AI Ethics: Bringing stakeholders on board may strengthen public trust in AI. AIs ethics committees, public consultations, for instance, make sure that every decision made about AI is inclusive. Implementing AI Auditing and Compliance Tools: Organizations must invest in new AI monitoring tools, assessing adherence to ethical principles. Routine audits of artificial intelligence models can illuminate biases and algorithmic risks as well as ethical transgressions before they manifest in decisions. Promoting Multi-stakeholder Collaborations: For formulation of sectors best practices, encouraging collaboration between government, academic institutions, and private-sector organizations. The same will enable the sharing of lessons learned and help promote the creation of responsible AI systems that serve society at large. Incorporation of Ethical AI in Nation's Digital Transformation Strategies: AI ethics should be part of a larger national strategy for digital transformation so that responsible use of AI is integrated into the country's overall framework, ensuring that technology is aligned with the 17 sustainable development goals.

5.4. Limitation and Future Research Directions

Though this study retrains insights, it has limitations. First, the case study is mainly focused on the UAE, which makes it difficult to generalize the findings to other regions with more favorable regulatory approaches and socio-economic conditions. Cross-country comparisons such as this one should be attempted in future studies to see how the models employed influence the adoption of ethical AI. Second, although the analysis was evidence-based and hypothesis-driven, the qualitative perspectives of domain experts—entrepreneurs, policymakers, or AI developers—would add contextual depth to the findings. Future studies should consider mixed-method methods to investigate AI ethics from various perspectives including from multiple stakeholders. Finally, ethical challenges will evolve as AI technologies develop. Next research should study new AI developments, like generative AI, deep learning, and autonomous systems and how ethical aspects need to evolve according to technological advancement.

The fast-paced adoption of AI in different industries demands strong ethical guidelines to enable responsible implementation. In this context, the UAE's AI Ethics Framework presents a model of balancing development with responsible innovation. Structured governance approaches, modern tools, and ethical awareness can help organizations balance the use and need of AI while ensuring adherence to society values. Going ahead, ongoing partnership among decision makers, researchers, and industry stakeholders will be vital in molding the fate of moral AI administration.

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