DEVELOPING A MEDIATION RELATIONSHIP MODEL OF SERVICE QUALITY, BASIC ARTIFICIAL INTELLIGENT AND BEHAVIOURAL INTENTION CONSTRUCTS IN THE USE OF ARTIFICIAL INTELLIGENT SECURITY TECHNOLOGY IN UAE

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ABSTRACT

The goal of this research was to create and test a moderating model which fundamental artificial intelligence (AI) serve as a moderator in the link between service quality and behavioral intention to employ AI security technology in the United Arab Emirates. The study is that it focuses on improving service quality in the field of AI security in the UAE. The performance expectation, effort, and quality domains each include four groupings of elements. Expectancy, social influence, and a favorable situation were uncovered throughout the literature study and were utilized as the core components of the questionnaire. In this study, quantitative methods were used. 420 questionnaires were distributed, of which 389 (92.6%) were returned and completed. 377 feedback were deemed usable and legitimate for further data analysis as recommended by the sample size of the study. The data was then descriptively analyzed using SPSS before being inferentially analyzed with Smart-PLS. The study's findings also confirmed that basic artificial intelligence has a partial mediation impact on the relationship between service quality and behavioral intention when it comes to the use of Al security technology. There is significant indirect effect of service quality between artificial intelligence and intention to use artificial intelligence as indicated by coefficient of 0.245, t-value of 0.055 and p-value 0.000. This shows that service quality mediates the relationship between artificial intelligence and intention to use artificial intelligence. Similarly, the transactional artificial intelligence path leading to intention to use artificial intelligence security through service quality is significant. This is indicated by coefficient of 0.043, t-value of 3.107, and p-value of 0.002 significant at 0.01 significance level and it may be concluded that service quality increases the intention to use AI security technologies because the support of AI security technologies. Job performance and the ease of using such technologies make people aware of the perceived usefulness of such technologies, which also influence others to use such technologies. Also, the need of the users to AI security technologies increases the use of AI security technologies since such technologies improve job performance, which makes users satisfied and interested in similar future technologies.

ABSTRAK

Matlamat penyelidikan ini adalah untuk mencipta dan menguji model penyederhana yang mana kecerdasan buatan (AI) berfungsi sebagai penyederhana dalam hubungan antara kualiti perkhidmatan dan niat tingkah laku untuk menggunakan teknologi keselamatan AI di Emiriah Arab Bersatu. Kajian ini memfokuskan peningkatan kualiti perkhidmatan dalam bidang keselamatan AI di UAE. Domain jangkaan prestasi, usaha dan kualiti merangkumi empat kumpulan elemen. Jangkaan, pengaruh sosial, dan situasi yang menggalakkan telah dikaji semasa kajian literatur dan digunakan sebagai komponen teras soal selidik. Dalam kajian ini, kaedah kuantitatif digunakan. 420 soal selidik telah diedarkan, di mana 389 (92.6%) telah diperolehi Kembali dan lengkap sepenuhnya. 377 jawapan digunakan dan sah untuk analisis data selanjutnya seperti yang disyorkan untuk saiz sampel kajian. Data tersebut kemudiannya dianalisis secara deskriptif menggunakan SPSS sebelum dianalisis secara inferensi dengan Smart-PLS. Dapatan kajian mengesahkan bahawa kecerdasan buatan mempunyai separa pengantaraan pada hubungan antara kualiti perkhidmatan dan niat tingkah laku apabila ia melibatkan penggunaan teknologi keselamatan Al. Terdapat kesan tidak langsung yang signifikan terhadap kualiti perkhidmatan antara kecerdasan buatan dan niat untuk menggunakan kecerdasan buatan seperti yang ditunjukkan oleh pekali 0.245, nilai-t 0.055 dan nilai-p 0.000. Ini menunjukkan bahawa kualiti perkhidmatan menjadi pengantara hubungan antara kecerdasan buatan dan niat untuk menggunakan kecerdasan buatan. Begitu juga laluan transaksi kecerdasan buatan yang membawa kepada niat untuk menggunakan keselamatan kecerdasan buatan melalui kualiti perkhidmatan adalah signifikan. Ini ditunjukkan oleh pekali 0.043, nilai-t 3.107, dan nilai p 0.002 signifikan pada tahap 0.01 dan ini boleh disimpulkan bahawa kualiti perkhidmatan meningkatkan niat untuk menggunakan teknologi keselamatan AI kerana sokongan teknologi keselamatan AI. Prestasi kerja dan kemudahan menggunakan teknologi menyedarkan orang ramai tentang kebergunaan teknologi tersebut, yang turut mempengaruhi orang lain untuk menggunakan teknologi tersebut. Selain itu, keperluan pengguna terhadap teknologi keselamatan AI meningkatkan penggunaan teknologi keselamatan AI kerana teknologi sedemikian meningkatkan prestasi kerja, yang menjadikan pengguna berpuas hati dan berminat dengan persamaan teknologi masa depan.

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LIST OF ABBREVIATION

AI	-	Artificial intelligence
UAE	-	United Arab Emirates
UNODC	-	United Nations Office on Drugs and Crime's
SQ	-	Service Quality
NLP	-	Natural Language Processing
IoT	-	Internet of Things
IT	-	information technology

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CHAPTER 1

INTRODUCTION

1.1 Introduction

In today's world of global rivalry, delivering excellent service is clearly a key component of many businesses' success. Most business analysts agree that the most powerful and influential strategic factor effective in influencing marketing and business strategy is service quality. The advent of customer experience management in almost every company aided this trend. The aim of establishing this department within a company is always to listen to what their customers need and assess their level of service delivery. One of the most common company visions and missions is to provide quality service to their customers/clients.

As a result, the service industries have often pushed for the phrase "best service wins." During the last few years, services providers have recognised that quality can effectively handle competition. As a result, in order to gain a competitive advantage, service quality is critical. Service quality is a way to stand out among competitors, particularly when competing services are nearly similar, such as security in the UAE, where establishing service quality can be the only way to differentiate oneself. Such distinction can result in a higher proportion of consumers making decisions, which can mean the difference between financial success and failure.

In terms of delivering products and services, globalisation, liberalisation, and mergers and acquisitions of service institutions, including the AI security business, have intensified rivalry among AI security organisations. The focus of businesses is changing away from profit maximisation and toward profit maximisation through better customer happiness (Kamaladevi *et al.*, 2016). As data and information have

been more freely available, customers have grown more knowledgeable, well-informed, and discerning when it comes to giving service. It is commonly known that as the UAE economy becomes increasingly knowledge-based, customer demand for high-quality services develops in lockstep with their spending power (Ammar *et al.*, 2015).

Also, service quality is difficult to quantify since services are intangible. In the service literature, the SERVQUAL dimensions are widely used to assess the quality of service provided by a human to a human customer. There is no empirical approach for measuring the perceived service quality provided by a social robot and artificial intelligence technology, according to a thorough review of the literature (Kharub, *et al.*, 2021). With reference to information technology service quality is critical, for the success of technology implementation and usage (Goutam, et al, 2022). Furthermore, the literature on social robots emphasizes significant distinctions between human service and social robots. Scholars have emphasized the role of entertainment and engagement in the adoption of social robots in the service industry, for example. However, it is questionable if the SERVQUAL dimensions are adequate for evaluating the service quality of social robots (Kharub, *et al.*, 2021).

There is a pressing need for AI security service providers to enhance their customer service. Furthermore, international AI security firms would be required to increase operational efficiency in order for local AI security firms to remain viable and competitive as a result of their entrance into the market. Due to multi-dimensional demand and globalisation problems, organisations are being compelled to re-engineer their processes and systems to be more customer-centered in order to improve service quality and stay competitive, and customers are the final judges of service or product quality (Ammar *et al.*, 2015). Behavioral intention is seen as when a consumer decides to stay with or leave a firm, behavioral intentions can be noticed. (Ardani, *et al.*, 2019).

Intention may simply be described as how hard someone are prepared to try and how much determination they intend to put into carrying out a behavior. Behavioral intention (BI) is defined as "a person's perceived likelihood of performing a behavior" (Mamman, *et al.*, 2016).

Furthermore, behavioral intention is influenced by three distinct antecedents: the user's attitude, the subjective norm, and perceived behavioral control. However, according to the theory of reason action (TRA), behavioral purpose is the most

important predictor of conduct. Kim, *et al.,* (2020) argued that an individual's purpose guides behavior execution in the same direction. According to Sagoe, et al. (2021), once the intention is triggered, it will serve as a self-fulfilling mechanism, driving people into a state of "must do" or "will do." Behavioral intentions, according to Keszey (2020), are motivating characteristics that represent how much effort a person is willing to put in to complete an activity. However, according to Gupta et al. (2018), encouraging a better knowledge of customers' behavioural intentions is still a top priority for marketing researchers.

1.2 Background of the Research

Artificial intelligence (AI) is a discipline of computer science concerned with having robots behave intelligently in the same way that people do. Game play, optimization methods, natural language, and robotics are all covered. XCON (Expert System), the first commercial AI-based system, was not released until the 1970s. (Hussain *et al.*, 2015). At the time, practical, industrial AI systems were similarly scarce. In the early 1980s, a Danish cement producer applied fuzzy logic techniques on Japanese metro trains and in a manufacturing application. Commercial AI products were only earning a few million dollars in revenue at the time (Hussain *et al.,* 2015). Businesses began to adopt Expert Systems in the mid-1980s, and AI teams were formed in numerous significant firms. In the same way, there has been a surge in interest in employing Neural Networks in commercial applications. By the end of the 1980s, expert systems were becoming more widely utilised in industry, and other AI approaches were being deployed as well, sometimes unnoticed but with positive results (Pirani *et al.,* 2016). Until the late 1990s, applications such as data mining software, e-mail filters, and web crawlers were created and widely used. (Kamaladevi *et al.,* 2016).

In October 2017, the UAE government launched the "UAE Strategy for Artificial Intelligence." (AI). This is the start of the post-mobile government age, which will be shaped by a wide range of prospective utilities, businesses, and infrastructure projects (Ahmed *et al.,* 2017). With the goals of achieving the UAE Centennial 2071 objectives, boosting government performance, using an embedded digital communications system that can overcome obstacles and provide fast, effective performance, making the UAE the first in the field of AI investments in various

sectors, and creating a new vital growing market economic potential, the policy is truly revolutionary in the region and around the world.

The policy, on the other hand, would cover a variety of industries. To begin with, the transportation industry reduces incidents and lowers operating costs. Second, the health-care industry works to reduce chronic and harmful diseases. Third, the space industry aids in the execution of precise tests, lowering the rate of costly errors. Fourth, the clean energy industry is in charge of facility management. Fifth, in order to provide water supplies, the water industry performs analyses and studies. Fifth, the technology industry boosts efficiency while still assisting with overall spending. Sixth, the education sector reduces costs while increasing the ability to learn. Seventh, the environment sector boosts the rate of forestation. Finally, the traffic sector eliminates traffic injuries and jams while also developing more efficient traffic policies.

In country like Singapore where artificial intelligence was largely recognized a study of Tran, *et al.,* 2021) with the goal of this study was to create a theoretical model to investigate medical students' behavioral intents to use an AI-based Diagnosis Support System in Singapore. in Saudi Arabia Artificial Intelligence (AI) has been touted as having revolutionary potential for public sector organizations, allowing for higher efficiency and creative methods of delivering public services. A study of Alshahrani, *et al.,* (2022) with title an attention-based view of AI assimilation in public sector organizations: The findings reveal a re-enforcing relationship between the situated attention and structural distribution of attention that can accelerate the successful assimilation of AI in public sector organizations this largely demonstrating that the artificial intelligence AI is still at acceptance level in most of the countries and in the survey of 28 countries across globe on the effect countries and individual factors on public acceptability of artificial intelligence and robotic technology where I was indicated that all countries varies by the factors affecting them in accepting the artificial intelligence. (Vu, and Lim, 2021).

The UAE government announced the 'UAE Strategy for Artificial Intelligence (AI)' in October 2017. This is the beginning of the post-mobile government era, which will rely on a variety of future services, industries, and infrastructure projects. The plan is the first of its type in the region and the globe, and it intends to: meet the UAE Centennial 2071 objectives, improve government performance at all levels, make advantage of an integrated smart digital system that can solve problems quickly and

efficiently. Make the UAE the first in the world in terms of AI investments in a variety of fields. And establish a new critical market with a high economic value.

Artificial Intelligence (AI) is projected to usher in a paradigm shift in our society's fabric. It is more crucial than ever to be deliberate about investing in AI in order to maximize the societal and economic benefits of AI and to be best prepared for future difficulties. As a result, in recent years, the United Arab Emirates (UAE) has pursued AI in a unique and imaginative manner. We present a high-level overview of major initiatives that are important to the UAE's strategic development of AI, including the national vision and strategy, research infrastructure, capacity-building, AI adoption, and cross-sector partnerships.

In the United Arab Emirates, there exist rules and blueprints for the development of AI technology. According to the UAE government's National Artificial Intelligence Strategy, which was unveiled in 2017, the goal is to make the UAE a world leader in AI by 2031. (UAE Strategy for Artificial Intelligence 2022). The strategy's goals include establishing the UAE as a regional and global AI centre, strengthening skills and local talent, and implementing AI in both public and commercial sectors to improve performance. The announcement of this policy coincided with the appointment of HE Omar Sultan Al Olama as the UAE's and the world's first Minister of State for Artificial Intelligence, as well as the founding of the Emirates Council for Artificial Intelligence and Digital Transformation. Several projects have also evolved under the supervision of the National AI Program, which develops and shares resources in order to achieve the UAE's strategic goal of being a worldwide player in the responsible use of AI (National Program for Artificial Intelligence, 2022).

B.R.A.I. N: Building a Responsible AI Nation" is the National AI Program's slogan. The AI Everything Summit for Governments and Businesses, as well as the AI Code Hub platform, which contains open-source software produced locally in the UAE, are examples of this (AI Hardware Infrastructure Report UAE, 2020).

Similarly, the AI policy is divided into five concepts: the establishment of the UAE AI Council; workshops, programmes, programs, and site visits to government agencies; the development of abilities and skills of all workers involved in the area of technology; the organisation of training programs for government officials; the provision of all services through AI and the full integration of AI into medical and security services; and the launch of the AI strategy.

Sheikh Mohammed bin Rashid, Vice President and Ruler of Dubai, unveiled the UAE AI Strategy, a key component of the UAE's Centennial 2071 goals. Sheikh Mohammed said in his speech that AI is "the next wave after Smart Government" on which "all our services, industries, and future infrastructure will depend." AI, according to some experts, is a representation of the human mind that helps us better understand the world around us. In its functions, AI can mimic the human mind. Some have compared it to a modern form of art that imitates the human mind using codes rather than colours.

Quality is a concept that is the core of usage and marketing and application theory and practice. The key to sustainable competitive advantage lies in delivering high quality service that will result in satisfied users in the public sector (Katono, 2011). Artificial intelligence service quality in the public domain is related to user satisfaction and information systems (IS) success in the IS field, and is also related to user satisfaction, retention and loyalty in the marketed or application (Yen, & Lu, 2008; Cronin *et al.*, 2000). The lack of quality in a system are usually course by resource efficiency and availability and compatibility among the component of the system for example the security technology in UAE can be enhance by using the artificial intelligence, the main reason for the lack of quality in the security system is that there is low technology adoption.

Future AI will allow us to learn, make better and healthier decisions as a society, improve health care and cure mental disorders, and develop innovative and advanced treatments for mental illnesses including dementia. Some experts believe AI can be used to build "mental wheelchairs" for people with mental illnesses. The UAE government has made AI one of its top priorities for the country's future development as a progressive and forward-thinking nation. AI would be used to improve the efficiency of government service delivery, including smart infrastructure, transportation, education, and health, according to Sheikh Mohammed.

Finally, security is a key concern for every individual, corporate atmosphere, organisation, community, and area in order to maintain growth and stability (Dhingra *et al.,* 2016). Threats to security can result in a host of problems, including turmoil, economic failures, and the loss of human lives as a result of terrorist acts. They might also make you feel insecure (Dhingra *et al.,* 2016). Humans struggle with security because their capacity to analyse and digest large amounts of data at once is restricted. This is a major vulnerability in the current security architecture that can be remedied

with AI approaches (Jones, 2015). Homeland Security, intrusion detection systems, denial-of-service attacks, cryptography, and video surveillance systems are all part of the security framework. Since security is so important, incorporating AI techniques enhances the efficiency of the current security system. As a result, the aim of this research is to determine the types of AI security technologies used by government agencies in the UAE to secure facilities.

1.3 Problem Statement

Tourists and foreigners from all around the world flock to the UAE, especially Dubai and Abu Dhabi. Visitors are drawn to the country not only because of the luxury hotels, large shopping malls, and sunny weather, but also because of the protection and security it provides. In United Arab Emirate crimes like burglaries, robberies and residential break-ins occur very rarely and previous statistics of the UAE crime report shows around half of the significant crime occurs due to backdated security system. In addition, cybercrime is on the rise, with a 300 percent higher in computer hacking in just six months in 2014. According to analysts, the United Arab Emirates is one of the top ten countries most vulnerable to cyber assaults (Ammar *et al.*, 2015).

Despite the benefits of security technologies, there are a variety of challenges and concerns that arise in AI networks, such as the potential of technology abuse owing to technological flaws and holes in IA security systems (Pan, 2016). Moreover, users of AI security technologies might not be satisfied with using these technologies, and this is because criminals use malicious programs that transfer fraud signals to reduce the effectiveness and efficiency of communication channels and technologies of AI systems through which hackers can perform data breach (Pesapane *et al.*, 2018). Employees' job performance and contentment with security technologies are affected by such concerns with AI security system (Abubakar, 2019).

Furthermore, e-service quality characteristics such as effort expectation and performance expectancy may have a detrimental influence on consumers' intentions to embrace these technologies, such as AI security solutions, when they have poor experiences (Chen, & Ko, 2016). According to previous research, many people are hesitant to adopt such technology because they are dissatisfied with the outcomes (Almarashdeh, 2018). Users' behavioural intention or readiness to utilise technologies in the future is negatively affected by their dissatisfaction with them owing to poor

performance and complexity of use (Rehman, & Shaikh, 2020). Also, if AI security technologies do not make users' jobs easier, their desire to use such technologies in the future would decline because they did not improve work performance (Fragoso, & Espinoza, 2017). Therefore, the dissatisfaction of the employees with AI security technologies due to difficulty of use, poor support for job performance, and inability to achieve the expected job performance has a negative impact on the intention to use AI security technologies in the future.

Because of its proximity to drug-producing countries in Southwest Asia, the UAE is a major spot for drug traffickers. In the United Arab Emirates, drugs are considered a type of violence, and the country has a maximum policy against illicit drug use. Possession of even a small number of illicit drugs carries a minimum sentence of four years in jail. According to the United Nations Office on Drugs and Crime's (UNODC) Global Study on Homicide, the UAE's homicide rate in 2012 was 2.6 per 100,000. During that time, the global homicide rate averaged 6.3 per 100,000 people. Women are allegedly trafficked to the UAE for sexual slavery from Russia, Azerbaijan, Uzbekistan, Kyrgyzstan, Kazakhstan, Ukraine, Ethiopia, Somalia, Uganda, Morocco, India, China, Philippines, Iran, and Pakistan. Human trafficking is exacerbated by porous borders and proximity to war-torn countries such as Iraq (Salih, Ma, & Peytchev, 2017).

The challenges facing the UAE as it tries to balance the great powers and ensuring its security in the future will be ones of geographical scale and military capability in using technological tools. However, there are limited empirical studies in the area of service quality (SQ) of AI (AI) used by public organizations in the UAE to protect properties (Salih *et al.,* 2017). In the United Arab Emirates, studies on the service quality of AI are very scanty available (Vilhena *et al.,* 2017).

As far as the researcher is concerned, there is a lack of study on SQ of AI in the protecting properties in the United Arab Emirates to inform stakeholders, especially with the general public. The increase in competition in security services providers in UAE and the growth trend in the gross security challenges for the past decade (Salih *et al.,* 2017), does not provide empirical support for the claim that the general public is satisfied with the service quality delivered by public organizations in the United Arab Emirates (Ammar *et al.,* 2015).

Since the government of UAE has mandated in ensuring the security of life and properties of the general public, the quality of the services has to meet peoples'

requirement. The public organization management needs to inform about how people perceived the service quality of AI technology for securing facilities in the United Arab Emirates. A survey will provide the necessary feedback for management's decision and growth strategy for the respective AI security technologies.

UAE citizens are now increasingly aware and concerned with the level of service they receive from public organizations as far as security is concerned. Despite the importance of measuring service quality across industries and nationwide, little empirical research has been conducted in the delivery of service quality of AI technology on securing properties in the UAE. This research intends to identify the relationship between service quality performance and behavioural intention to use AI security technology. Moreover, measuring service quality technologies is a challenging task because it is constantly evolving and developing, and this requires constant investigation in this area (Fragoso *et al.*, 2017). This shows that new findings might be revealed especially when using new constructs. The current study focused on the intention to use IA security technologies to improve service quality since this topic is evolving with the appearance of new technologies, and the main gap in this study is using IA technology needs as a mediator. There is no clear evidence for studies that have used basic AI needs as a mediator between service quality and the intention to adopt AI security technologies with the same sub-constructs of AI security technologies, which shows the need for the current study.

1.4 Research Questions

The research questions of this study are as follows:

1. What are the factors affecting the use of AI security technology?
2. What is the performance of the factors in each domain?
3. What is the mediating effect artificial intelligence on the relationship between service quality, and behavioural intention in the use of AI security technology in UAE?
4. What are model of service quality, basic AI and behavioural intention constructs in the use of AI security technology in UAE?

1.5 Aim and Objectives of the Research

The study aims to develop a structural equation model of factors affecting the behavioural intention to use AI security technology in UAE. The specific objectives of this research are as follows:

1. To identify the factors affecting the use of AI security technology
2. To examine the performance of the factors in each domain
3. To evaluate the mediating effect artificial intelligence on the relationship between service quality, and behavioural intention in the use of AI security technology in UAE.
4. To develop model of service quality, basic AI and behavioural intention in the use of AI security technology in UAE

1.6 Scope of the Research

This study focuses on the impact of AI technology needs on the relationship between service quality performance and behavioural intention to use al security technologies. Since security is the primary concern, the study scope is limited to the ministry of interior in the UAE, and the participants are workers at the managerial and operational sections. Hence, the Ministry of Interior is the case study of this research, and the data will be collected from the operational and managerial staff of this ministry in the UAE, which excludes other employees. The focus on these units because they are the most workers to use AI technologies as a part of their jobs. The ministry of interior in UAE is located in 1st ST Alrawdah W56 Abu Dhabi, United Arab Emirate it consists of 5 divided sectors of which record indicated that they are around 8500 staff in the ministry.

Besides, since the area of technology adoption and use is a vast area that has been used by researchers to investigate the intention to use AI security systems using different variables, the current study is limited to the following variables. The independent variable is service quality which has four sub-constructs: performance expectancy, effort expectancy, social influence, perceived usefulness, facilitating condition. In terms of the dependent variable, it is AI security technology, and it is limited to the following four sub-constructs: satisfaction with technology, perceived

impact of technology, interest in future technologies, and job performance. Also, the study used behavioural intention to use as the mediator of the study, and technology needs as the mediator variable. So, other variables are excluded in this study.

In terms of AI security technologies, the study attempted to cover as many security technologies as possible. However, the scope is limited to the technologies that are used by the participants of the study, which include the following AI security technologies: facial recognition, Computer-Assisted Passenger Pre-screening, airport racial profiling, Secondary Security Screening Selection, pattern recognition, thermal cameras, emotion detection, face perception, speech recognition, Iris recognition, pattern recognition, analogy and case-based reasoning, three-dimensional face recognition, and facial profiler. Hence, other technologies are excluded from the context of the study.

1.7 Significance of the Research

These results are critical for policymakers and decision-makers to comprehend and enhance public organisations based on the study's findings. Furthermore, the study's structure may be applied by other organisations to conduct practical research. That is, the constructed framework was put to the test using structural equation modelling, which examined each of the constructs and sub-constructs in connection to the major constructs, as well as the link between all of the study's constructs. As a result, leaders and policymakers in government, public, and private organisations may utilise the research framework model to improve service quality by using appropriate AI security technologies.. It will also help to enlighten the managers on the need and importance of having sustainable AI security for the safety and protection of facilities and properties of the general public. Additionally, this study will help to elicit all the issues and effects of AI security technology service quality and adoption of the general public in the UAE. The research will help to educate the public on the importance of AI security technology for the sustainable growth, safety and development of the UAE., the study is a taping source knowledge as revealed that service quality increases the intention to use AI security technologies this will educate the quality service providers to renders quality services because the support of AI security technologies to job performance and the ease of using such technologies make people aware of the

perceived usefulness of such technologies, which also influence others to use such technologies. Also, the study can help in elaborating the uses of technology as it has also revealed the need of the users to AI security technologies increases the use of AI security technologies since such technologies improve job performance, which makes users satisfied and interested in similar future technologies. The practical contribution is likewise linked to the study is that the study's findings might aid government agencies under the Ministry of the Interior in improving service quality by implementing AI security solutions. The present study looked at a variety of factors that can help enhance service quality by implementing AI security solutions.

To the academia after providing the source of literature review, the study goes deep to makes both theoretical and practical contributions. The study's investigation is referred to as the theoretical contribution. That is, the current study looked back at previous research to create a questionnaire that included service quality factors that impact the usage of AI security technology. The construction of the study instrument and data collecting revealed new information about the influence of service quality on the deployment of AI security technologies in the UAE.

1.8 Structure of Thesis

This thesis is structured into five chapters, and the content of the chapters are as follows.

Chapter 1: This chapter contains a brief context of the research introduction, background, research questions, objectives, as well as the scope of the research.

Chapter 2: This chapter reviews the related literature on the impact of AI in security, history of AI, categories of AI, advantages and disadvantages of AI in Securing facilities in UAE, etc.

Chapter 3: This chapter presents the details of the methodology adopted for this research. The quantitative methodology will be used. The justification for adopting this approach is outlined alongside with the specific methods employed for data collection.

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VITA

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