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Department of Business Administration

THE IMPACT OF GENERATIVE AI ON DECISION-MAKING PROCESSES IN SAUDI ARABIAN SMEs

Master Thesis

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Supervisor

Asst. Prof. Dr. Aslıhan ÜNAL

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Turkish Anstract	**:**	Bu çalışma, Yapay Zekânın üretken biçimlerinin (Generative AI) Suudi Arabistan'daki küçük ve orta ölçekli işletmelerin (KOBİ) karar alma süreçleri üzerindeki etkisini incelemektedir. Araştırmanın amacı, işletme yöneticilerinin ChatGPT ve Gemini gibi üretken yapay zekâ araçlarını stratejik ve operasyonel karar alma süreçlerine nasıl entegre ettiklerini ve algıladıklarını anlamaktır. Araştırmada nitel bir yaklaşım benimsenmiş ve fenemonoloji deseni izlenerek, çeşitli sektörlerde faaliyet gösteren KOBİ yöneticileriyle yapılan derinlemesine görüşmeler yoluyla veriler toplanmıştır.

Bulgular, üretken yapay zekânın karar alma süreçlerinde verimliliği, analitik doğruluğu ve yaratıcılığı artırdığını göstermektedir. Yöneticiler, bu araçların veri odaklı kararları geliştirdiğini, iş yükünü azalttığını ve yenilikçi düşünmeyi teşvik ettiğini belirtmiştir. Bununla birlikte, katılımcılar insan yargısının ve etik denetimin hâlâ vazgeçilmez olduğunu vurgulamışlardır; çünkü yapay zekâ kültürel bağlamı ve insani sezgiyi tamamen ikame edememektedir. Dijital okuryazarlık eksikliği, uygulama maliyetleri ve çalışan direnci önemli zorluklar olarak tanımlanmıştır.

Araştırma, Suudi KOBİ'lerinde başarılı yapay zekâ uygulamalarının liderlik desteğine, çalışan eğitimine ve güven inşasına bağlı olduğunu ortaya koymaktadır. Çalışma, üretken yapay zekânın insan zekâsının yerini almak yerine onu destekleyen bir araç olduğunu vurgulamaktadır. Sonuç olarak, yapay zekânın sorumlu bir biçimde entegrasyonu, yenilik, rekabet gücü ve sürdürülebilir büyüme açısından Suudi Arabistan'ın 2030 Vizyonu ile güçlü bir uyum göstermektedir.

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DECLARATION

I hereby declare that in the preparation of this thesis, scientific ethical rules have been followed, the works of other persons have been referenced in accordance with the scientific norms if used, there is no falsification in the used data, any part of the thesis has not been submitted to this university or any other university as another thesis.

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The thesis study of Abdulaziz Ahmed Abdullah AHMED titled as The Impact of Generative AI on Decision-Making Processes in Saudi Arabian SMEs has been accepted as MASTER THESIS in the department of Business Administration by our jury.

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SUMMARY

This study investigates the impact of Generative Artificial Intelligence (AI) on decision-making processes within small and medium-sized enterprises (SMEs) in Saudi Arabia. The research aims to understand how business leaders perceive and integrate generative AI tools such as ChatGPT and Gemini into their strategic and operational decision-making. Using a qualitative phenomenological approach, data were collected through in-depth interviews with SME managers from various sectors to capture their lived experiences in adopting AI technologies.

The findings reveal that generative AI significantly improves decision efficiency, analytical accuracy, and creative problem-solving. Managers reported that AI tools enhanced data-driven decisions, reduced workload, and supported innovation. However, participants emphasized that human judgment and ethical oversight remain essential, as AI cannot fully replace contextual reasoning or cultural sensitivity. Challenges identified include limited digital literacy, implementation costs, and employee resistance to technological change.

The study concludes that successful AI adoption In Saudi SMEs depends on leadership support, employee training, and trust-building. It highlights that generative AI serves as a supportive partner rather than a substitute for human intelligence. The research contributes to understanding how digital transformation aligns with Saudi Vision 2030, emphasizing that integrating AI responsibly can strengthen innovation, competitiveness, and sustainable business growth.

Keywords: Generative Artificial Intelligence (AI), Decision-Making, Small and Medium-Sized Enterprises (SMEs), Saudi Arabia, Digital Transformation, Leadership, Innovation, Vision 2030.

ÖZET

Bu çalışma, Yapay Zekânın üretken biçimlerinin (Generative AI) Suudi Arabistan'daki küçük ve orta ölçekli işletmelerin (KOBİ) karar alma süreçleri üzerindeki etkisini incelemektedir. Araştırmanın amacı, işletme yöneticilerinin ChatGPT ve Gemini gibi üretken yapay zekâ araçlarını stratejik ve operasyonel karar alma süreçlerine nasıl entegre ettiklerini ve algıladıklarını anlamaktır. Araştırmada nitel bir yaklaşım benimsenmiş ve fenemonoloji deseni izlenerek, çeşitli sektörlerde faaliyet gösteren KOBİ yöneticileriyle yapılan derinlemesine görüşmeler yoluyla veriler toplanmıştır.

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Anahtar Kelimeler: Üretken Yapay Zekâ (AI), Karar Alma, Küçük ve Orta Büyüklükteki İşletmeler (KOBİ), Suudi Arabistan, Dijital Dönüşüm, Liderlik, İnovasyon, Vizyon 2030.

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ABBREVIATIONS

AI	**:**	Artificial Intelligence
AIDC	**:**	AI Decision Capability
AOI:	**:**	Adaptive Organizational Intelligence
CEO	**:**	Chief Executive Officer
ChatGPT	**:**	Chat Generative Pre-trained Transformer
CRM	**:**	Customer Relationship Management
COG	**:**	Cognitive Alignment
DEM	**:**	Data Ecosystem Maturity
DFR	**:**	Decision Fatigue Reduction
GenAI	**:**	Generative Artificial Intelligence
LLMs	**:**	Large Language Models
SDAIA	**:**	Saudi Data and Artificial Intelligence Authority
SIV	**:**	Strategic AI Visioning
SMEs	**:**	Small and Medium sized Enterprises
TOE	**:**	Technology-Organization-Environment Model

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PREFACE

This thesis represents the culmination of my academic and personal efforts to explore one of the most transformative technological phenomena of our time the rise of Generative Artificial Intelligence (AI) and its influence on managerial decision-making within Saudi Arabian Small and Medium-sized Enterprises (SMEs). The study was born out of both intellectual curiosity and a professional recognition of the ongoing digital transformation shaping modern business environments, particularly in emerging economies such as Saudi Arabia.

The Idea for this research developed from the growing discussion surrounding how AI tools such as ChatGPT and Gemini are being integrated into strategic and operational business functions. While the global literature has advanced in understanding the technical aspects of AI, little attention has been devoted to the human and experiential dimensions of this transformation in the context of Saudi SMEs. Motivated by this gap, this study aimed to understand how decision-makers perceive, experience, and interact with Generative AI tools in their daily managerial practices. The research process required patience, dedication, and continuous reflection. Conducting interviews with SME leaders provided a rare opportunity to engage with the lived realities of professionals navigating the intersection between technology, strategy, and culture. Their insights enriched this thesis with authentic experiences that go beyond theoretical assumptions and offer a nuanced understanding of the Saudi business ecosystem. I would like to express my deepest gratitude to my supervisor, Asst. Prof. Dr. Aslıhan Ünal, for her consistent guidance, academic rigor, and constructive feedback throughout every stage of this study. Her intellectual support and encouragement made this journey both rewarding and enlightening. I am also sincerely thankful to all the participants who generously shared their time and perspectives, making this research possible.

Finally, I dedicate this work to my family and friends for their unwavering support, understanding, and belief in the value of knowledge and perseverance. This research stands as a reflection of their encouragement and as a small contribution to the broader discourse on artificial intelligence and its responsible adoption within the context of Saudi Vision 2030.

Abdulaziz Ahmed Abdullah AHMED

INTRODUCTION

Generative artificial intelligence (AI) has become a strong trend in the corporate realm in recent years, disrupting the manner in which companies obtain, deliver, and process information and, consequently, make decisions. They are also unlike traditional AI systems, which mainly depend on rule-based logics and predefined parameters, generative AI models, like ChatGPT developed by OpenAI, Gemini by Google, and other large language models (LLMs) have the capacity to create human-like text, generate content, summarize data, and support analytics across channels. These tools are also gaining more presence in the business world, and they provide great innovations in information processing, engagement with customers, developing content, strategic planning, and, most significantly, decision making. Generative AI technologies are transforming not merely the set of tools at the disposal of decision-makers but also the decision-making process itself as companies come to grips with the conditions of the digital economy (AlQahtani, 2025).

The usefulness of AI in business decisions has escalated especially in a scenario that demands quick solutions to the problem and synthesis of the information alongside prediction within doubt. In this dynamic world, however, decision-makers are not basing their judgments only on intuitions or previous experience anymore but are increasingly assisted by AI-generated content and tools. In the case of large corporations, they may already have the systems in place and technical expertise to implement the more sophisticated AI systems, but the small and medium-sized business (SME) sector would present a different situation. SMEs usually work under financial, technical and human resource constraints but have to work through corporate decision complexities in fast paced highly competitive markets. Generative AI tools integration in such situations can present great opportunities and significant challenges. This line of research sits in this specific nexus between the increasing capabilities of AI and the small, but nimble ways of doing SMEs (Xinlin et al., 2025).

Although the hype on the use of generative AI could not be greater, what is mostly lacking to date is the experience and use of these technologies in real life decision making environments, in particular in small and medium enterprises, in emerging markets. Most

of the available literature has approached the understanding of the technical potential of AI systems, adoption rates, or performance results, in quantitative terms. This focus, however, has created a large vacuum of human oriented angles, in its view on how a human being understands, perceives and responds emotionally with the help of the AI tool, at the working frontiers. In the background of Saudi Arabia, whose national priority is to invest in digital transformation, and SMEs constitute a critical backbone of the economy, this absence of qualitative insight is all the more urgent (Zada et al., 2024).

This study aims at identifying the lived experience of Saudi SME decision-makers in their approach to generative AI by applying it to their daily decision-making practice. The purpose of the study is not to gauge the effectiveness and efficiency of AI tools in numerical form. Rather, it aims at reflecting the subjective meanings, interpretations, and attitudes that business managers attach to using generative AI. Through a phenomenological approach, the research focuses on depth of insight rather than the scope of coverage, trying to understand how decision-makers make sense of these emerging technologies, how they embed them into their workflows and how this embedding impacts their sense of agency, trust, responsibility and professional identity. Through the same, the study brings into picture the experiential dimensions of AI adoption which is one aspect that has been glossed over in popular management and information system studies (Alsaiary et al., 2024).

This study has immense theoretical and practical research as well as policy implications. Scholarly, it makes a contribution to the emerging discussion addressing the topic of human-AI collaboration by providing the qualitative data on how the working experience with the generative AI tools is understood and perceived by organizational actors. The literature also lacks research on the role of AI in SMEs in the non-Western, emerging market conditions, which the study also addresses. In practice, the results can guide SME owners, managers, and consultants regarding the possible advantages and dangers of introducing generative AI to decision-making procedures. Policy-wise, the study echoes Saudi Vision 2030 that is based on digital innovation, entrepreneurship and empowerment of SMEs. The studies might provide effective suggestions to national AI strategies, digital literacy initiatives, and policies of supporting the SME to facilitate better

adoption and application of emerging technologies in a sustainable way (Mabkhot & Basri, 2024).

This study was guided by the most crucial research question that is as follows: to explore how SME decision-makers in Saudi Arabia experience the involvement of generative AI in the process of making decisions. In order to elaborate this question further, the following questions were also asked: How do decision-makers interpret/attribute generative AI tool meaning to it? And What are the challenges/opportunities they face when using such technologies? These questions helped focus on giving more comprehensive answers to what can be defined as cognitive, emotional, ethical, and contextual aspects of engaging in AI to provide a more comprehensive picture of the phenomenon under study (Al-Mamary, 2025).

Methodologically, the study followed a qualitative research design within the concept of phenomenology, which is more applicable when trying to imagine how people experience a given phenomenon in their own words. The data were generated based on semi-structured interviews of SME decision-makers who directly experienced working with generative AI facilities (ChatGPT, Gemini, or Copilot) in their activities. In this way, the need to be flexible in the thematic exploration and ensure the homogeneity of the interviews structure could be achieved. Theme analysis was employed in analyzing the data, the Braun and Clarke's six phases framework consists of a systemic approach to recognise, place and interpret patterns of meaning in qualitative data (Almashaqbeh, 2025).

The rest of the thesis is organized in the following manner: Chapter One demonstrates an extensive review of the literature that provides the conceptual base of the research and introduces the main discussions of the generative AI in business processes, peculiar features of decisions made by the SMEs, AI acceptance in the Saudi Arabia environment, human-AI interaction and gaps in the research. The second chapter reports the research methodology that entails the design, sample design, data collection and data analysis. Chapter Three includes the results of the thematic analysis of interviews with participants that are accompanied by representative quotes and interpretation remarks. Chapter Four provides a discussion of the findings against the light of the available and

past literature, implications to theory, practice, and policy. Lastly, Chapter Five ends the present study with the main insights summarized, limitations highlighted and future studies proposed. The researcher through this thesis seeks to illuminate on how the generative AI is influencing the human aspects of decision-making in one of the most dynamic and fast digitizing economies in the Middle East.

CHAPTER ONE

LITERATURE REVIEW

1.1. Understanding Generative AI in the Business Context

Generative Artificial Intelligence (GenAI), specifically the chatbots like ChatGPT, Gemini, and other large language models (LLMs) brought new possibilities to the businesses with their ability to create content, summarize, guide decisions, and interact with customers. Generative AI, unlike rule-based typical AI, can imitate how people can reason and be creative and give outputs in contextually appropriate and linguistically rich results. Lopez-Solis et al. (2025) understand that GenAI is a fundamental way of boosting strategic decision-making since it can make companies process complexity, ambiguity and huge data more effectively than before.

In their systematic review, Salih et al. (2025) found that ChatGPT can transform industries, referring to supply chain, tourism, marketing, software development, and finance. In their findings, GenAI is associated with better efficiency, lower costs of operation, and the ability to promote sustainable innovation but issues with integration exist regarding data privacy, alignment with systems, and adaptation on the part of the users.

Qadeer et al. (2025) examined the aspects of GenAI in retail SMEs in Pakistan and emphasized its contribution to digital advertising. Their results mean GenAI makes hyper-personalization, better targeting of customers, and efficient operations. Full adoption is, however, hampered by barriers to adoption such as costs, a lack of technological infrastructure and resistance to change.

Zada, Khan, Mehmood, and Contreras-Barraza (2024) undertook a detailed survey of GenAI and the FinTech sector, a field of operation that is particularly complex in terms of innovation versus disruption and regulatory sensitivity. In the article published in Oeconomia Copernicana, the authors were interested in knowing how the use of GenAI may impact both exploratory innovation, or development of new solutions, and exploitative innovation, which is an improvement of the current processes. The study was rooted in a prolonged form of the Technology-Organization-Environment model (TOE),

and added another layer of complexity, adding two moderating variables: ethical dilemmas and Environmental, Social, and Governance (ESG).

The authors discovered that successful implementation of GenAI technologies in FinTech depends to a large extent on the ethical environment that existing companies have to work in. Issues of ethics such as data privacy, transparency, and algorithmic bias caused strained limits or opportunities to innovations with the way institutions handled such dilemmas. Besides, environmental sustainability and structures on corporate governance, ESG commitments, helped in making decisions towards internal innovation results as well as external stakeholder trust.

Notably, it also highlighted in its study that although GenAI is a transformative technology, its adoption is not simply a technical and logistical concern- it must be aligned strategically and have ethical vision and strong organizational governance. The results provide good data to understand how companies can further integrate GenAI projects with large-scale institutional duties, especially in the more regulated industry like the finance sector.

Xinlin, Wenting, Shah, Na, and Alam (2025) conducted a different study and placed it in the hospitality and tourism industry with the aim of examining the effects of Generative AI on cognitive and organizational dynamics during decision-making. The article in the Journal of Quality Assurance in Hospitality & Tourism investigated more than 400 participants of 200 organizations in the Greater Bay Area of China, or, in other words, the home of innovation intensity. The conceptual background of the study was based on the Socio-Technical Systems Theory, Dynamic Capabilities Theory, and Cognitive Fit Theory in the sense that it explored the GenAI aesthetic impact on the holistic analytical vision.

The authors hypothesized and tested a conceptualization with three major constructs: Cognitive Alignment (COG)- the extent to which AI-supported insights aligned with mental models of decision-makers; Adaptive Organizational Intelligence (AOI) -the ability of an organization to be adaptive on the basis of AI-provided knowledge; and AI Decision Capability (AIDC) -the technical potential of using AI in the context of strategic

applications. The variables regulating them included Data Ecosystem Maturity (DEM), Decision Fatigue Reduction (DFR) and Strategic AI Visioning (SIV).

Results indicated that organizations that had greater DEM and SIV were in greater likelihood of experiencing contributions by GenAI on performance and speed of decisions. GenAI helped to evade cognitive load and improve the state of strategical responsiveness, particularly in stressful decision settings. The research expressed the need to bring the technological potential in synchronization with the cognition process and the strategic foresight claiming the GenAI is to be used as the co-pilot in the decision-making, not as an alternative to human judgment.

Mabkhot and Basri (2024) also offered good insights on the benefits experienced in the operation of GenAI as far as the Saudi setting is concerned. Their study on SMEs in supply chain sectors illuminated the fact that AI-enabled risk treatment, innovation, and ambidexterity contribute considerably to the performance of the operations especially when enabled by adaptive capabilities. These results are in line with the importance placed on digital transformation under the vision 2030 as one of the national priorities of economic diversification.

Also, the impact of generative AI penetrates into the fields of creating strategies and being responsive to the market. A step-by-step AI adoption model makes it possible to integrate generative tools into SMEs at the earliest stages of awareness and advance to the processes of advanced customization with all the associated obstacles of affordability, competence, and cultural resistance (Hussain and Rizwan, 2024). This step of graduality brings the AI literacy and lessens the interference in the current workflow.

Along with the potential of transforming the market, GenAI acts as a source of ethical and regulatory concerns, most prominent in the case of conservative or heavily regulated markets. Polok and Dussin (2025) also studied the governance of AI in Saudi Arabia and based their work on the necessity to align GenAI implementation with the cultural peculiarities and religious values of the country. Their study points to the principle-based regulation system that is flexible and tries a balance between innovative and ethical integrity in the Kingdom.

Overall, GenAI is a paradigm change in the way businesses make decisions, strategy and innovation; especially SMEs in emerging economies. On the one hand, its potential abilities are likely to result in a higher level of efficiency and competitiveness, however, its viable integration is reliant on a delicate comprehension of organizational preparedness, leadership culture and ethical constraints. The next sections of this study will examine how these theoretical insights translate into the lived experiences of SME decision-makers in Saudi Arabia.

1.2. Decision-Making in SMEs

The decision-making effect in the small and medium size enterprises (SME) is quite different in comparison with larger organizations because of the peculiar constraints, absence of formal organization chart, and strong dependence on the personality of the management. In contrast to large organizations where decisions might go through several business departments or well-defined analytical frameworks, the decisions made in the SMEs are sometimes only based on the gut feel, expertise and near instant judgment of few decision-makers whose number is small. That translates into a dynamic, relatively hurried and less formalized manner of making decisions. AlQahtani (2025) has indicated that leaders of SMEs usually work under time constraints with limited funds, human capital, as well as technological infrastructure. Her research provides the argument that the integration of artificial intelligence (AI) And especially, GenAI, is an efficient moderator between the firm growth and overall performance by enhancing the speed and quality of the decisions making process.

Lopez-Solis et al. (2025) also recorded the increase in strategic thinking as well as forecasting because of the GenAI and added that the SMEs utilizing AI are morenimble in environmentally uncertain and competitive markets. When it comes to a particular area that they have specifically targeted, Almashaqbeh (2025), who have specifically looked into the use of ChatGPT in the Saudi financial sector, noted how generative AI tools can be extremely helpful at gathering and analyzing data, modeling and simulating scenarios, and creating insights in real-time, thus redefining the way strategic decisions can be made. These tools will offer a readily accessible and potent extension to human cognition in SMEs where human access to data analysis and strategy capability is spotty, at best.

Likewise, Ikbal (2025) demonstrated the results of his wide-ranging meta-analysis of 100+ empirical studies on which he concluded that business analytics driven by AI can have a great contribution to improved strategic performance. The three dimensions of GenAI that were highly influenced in the SME decision making include speed, responsiveness and operational agility. His work implies that SMEs, even in resources-limited contexts, have a chance of paring the playing field with the help of AI when it is integrated with real-time operation dashboards and predictive model tools. Such responsiveness is especially important in such areas as retail, logistics, and digital services where quick decision-making can spell the difference between survival in the market.

Jaboob et al. (2025) also shed light on the human aspect of AI adoption in terms of their research concerning the role of AI in an environment of Omani SMEs. Their analysis showed that the most important factor, which mediated the way AI is adopted and utilised, was the existence of effective digital leadership that was represented by the openness to innovation, promotion of experimentation, and the promotion of digital culture of learning. At the companies whose leadership does not hesitate to contribute to the process of AI implementation, workers are more likely to test and be confident in the work of the generative AI instruments. The effects of this include improved strategic decision-making processes as well as change in the organizational culture to be more data oriented in operations.

Additionally, Mabkhot and Basri (2024) supported the evidence with the SME context in Saudi Arabia, which reveals that GenAI leads to benefits in the business operations decision-making process, mainly in supply chain management. The results also demonstrated that the AI tools allowed more effective inventory, risk assessment, and customer response plans, especially where the operations demonstrated certain extents of ambidexterity and flexibility. Such operational performances transfer directly to effective strategic positioning, and thus when markets change or fluctuate, SMEs are in better positions to deal with such uncertainties.

In the more nascent markets of Saudi Arabia, the deployment of AI in the SME decision-making process should also be placed in the wider framework of digitalization projects like vision 2030. As Alsaiary et al. (2024) pointed out, this process of digital

transformation is still a problem among various Saudi SMEs since they are an obstacle created by contextual factors like old systems, skill deficiencies, and the unavailability of digital governance systems. Nevertheless, when the introduction of generative AI is a success, it has the ability to be a kind of gateway to broader digitalization and innovation at all levels of decision-making.

Additionally, SMEs strategic decision making with the help of GenAI regularly goes beyond actions and starts to impact on more extensive plans. As another example, a study conducted by Qadeer et al. (2025) on Pakistani retail SMEs established that the businesses obtained the benefits of generative AI not only to target their customers but also to help decide on prices, branding stories, and market segmentation. This implies that the merging of GenAI into SMEs can stretch more than supportive to its role as an active participant in the business strategy approach.

In conclusion, our generative AI is not merely a technological enhancement in the SME scenario, but it is deeply transformative in revising the way in which decisions are made, by whom and on what type of data. The interaction of leadership support, employee preparedness and AI capability sets the difference between these tools being marginal assistants, or core strategy vehicles. The following part dwells upon the way such transformation is taking place in Saudi SMEs, in particular, through the national initiative of driving innovation into the sphere of digital trends.

1.3. Digital Transformation and AI Adoption in Saudi Arabian SMEs

The digital innovation, entrepreneurship, and empowerment of small and medium enterprises have lately been considered to play a key role in the financial transformation of the country under the Saudi Arabian Vision 2030. In this regard, the concept of digital transformation is not merely a technological change, but an organizational strategic imperative to drive growth and competitiveness as well as long-term survival. One of the most noticeable changes that this shift brings is the shift in the integration of Artificial Intelligence (AI) and more specifically, GenAI into the very fabric of business operations. The movement promises vast opportunities accompanied by difficult challenges to SMEs who make up over 99 percent of all enterprises in Saudi Arabia.

Alsaiary et al. (2024) carry out a qualitative survey in 25 Saudi SMEs and conclude that digital transformation is more uneven, although there are widespread technological trends in the forms of AI, big data, and IoT. Their results stressed the fact that successful adoption of digital can occur only in the proper presence of technology as well as the proper organizational context, i.e. the existence of managerial support, employee digital skills and a culture that is accommodating to change. SMEs who had cultivated proactive digital attitude and made efforts to invest in employee upskilling stood in a better position and got better integrated and enjoyed the benefits of AI tools. On the other hand, resistance to any kind of change, inability to determine the clear course of digital strategy, and the low level of technical literacy usually became the obstacles to the complete earning of the advantages of AI.

Mabkhot and Basri (2024) utilized a large-scale quantitative survey of workers in Saudi SMEs (390 workers) and found that the effect of AI with GenAI (Choi et al., 2022), in particular, had such a positive outcome regarding the supply chain operational performance. Their model proved that the implementation of AI-powered risk management tool, and generative intelligence proved responsiveness, inventory management, and cost effectiveness in their models. Nonetheless, adaptive capabilities and innovation ambidexterity were presented with a mediating role in the study. This is to say that there is a need to have flexible structure, cross-functional teamwork, and the desire to experiment and explore the workflows in order to achieve the full potential of AI implementation. This implies that although technology is a potent phenomenon, it has to be integrated into an organizational culture that will encourage experimentation and learning.

As a continuation to this, AlShwaier and Abdullah (2025) analysed the innovation environment of the Saudi startups SMEs. The researchers combined more than 200 peer-reviewed studies and policy documents to determine that the AI adoption may increase startup performance in terms of 25 percent of the total output when, accompanied by a crucial context dependence, including leadership support, risk-taking culture, learning orientation, and external collaboration networks. These results are in close touch with the Vision 2030, which was designed with regard to the Kingdom being the innovative hub of entrepreneurship and digital excellence in the region. In their analysis, AI as a factor of

R&D can help even resource-constrained SMEs take part in innovation cycles that they would not have previously enjoyed.

These technologies and manager's backgrounds in terms of adopting AI are also imperative, but ethical and cultural implications have a definitive role in the Saudi setting. Polok and Dussin (2025) discussed the regulatory model applied in Saudi Arabia and pointed out that the Saudi Data and Artificial Intelligence Authority (SDAIA) has developed its unique regulatory model of AI. Saudi Arabia has adopted a principle-based culturally sensitive model of compliance, unlike many western countries that operate on strict compliance systems where innovation has to be done responsibly. Upon the motivational resources like the compliance badges and volunteer codes, the SDAIA strives to align the global standards of ethics of AI to Islamic values and expectations of local cultures. With such a deregulated environment, exploring what generative AI can do can be done without threatening social stability and rectitude.

In addition, such a governance framework might also be relevant in instances where GenAI may apply in instances that deal with sensitive decision making, e.g. human resources, creation of marketing content or financial forecasting where cultural norms and ethics profoundly lie. Principle-based-based model might particularly suit SMEs working in industries that focus on education, media, religious products, and related fields where they might have to go to ethical gray areas using AI-generated materials.

Moreover, it is essential to combine the policy of government, infrastructure investment, and innovation of the private sector. The Saudi government has made substantial investments in its digital infrastructure involving the development of smart cities, national cloud computing platforms and AI education programs. Such investments decrease the number of obstacles to AI induction through giving the essential ecosystem in which companies can experiment with technology.

In short, digital transformation in Saudi Arabian SMEs requires more than technological modernization: it needs to ensure the strategies, cultures, and regulations are synchronized. As prospects of GenAI and other AI technologies manifest themselves, they are destined to become successful only in the case they are prepared to fulfill the role of leadership, the ability to adjust, and alignment with the cultural context of SME cases.

The visionary and value-oriented pattern adopted by Saudi Arabia can serve as an enlightening example of emerging countries that aim to apply innovation and traditional forms in a balance and agile approaches to ethical responsibility.

1.4. Human-AI Interaction: A Phenomenological Lens

Based on the interaction of GenAI and human beings, going beyond simple technical judgments or performance indicators, it would be necessary to consider that the two heterogeneous entities would interact in a certain way. Rather, what is required is a phenomenological one that examines how people experience, perceive and respond to AI tools in their daily work-related settings emotionally. In this respect, phenomenology provides an enriching humanistic perspective on the study of the life-world of decision-makers, indicating how meaning is generated in the process of connecting with GenAI systems like ChatGPT, Gemini, and other language generative models.

The human-GenAI interface is not objective and standardized, especially as Lopez-Solis et al. (2025) state. The users do not mindlessly feed data in and get neutral outputs; they also use these tools with preconceptions, biases, cognitive shortcuts and emotional anticipations. As an example, the GenAI could generate a recommendation that is empowering to one user and threatening to another, based on experience, technological competency or security of employment. It is hence relational and interpretive and not deterministic or mechanistic interaction.

Hussain and Rizwan (2024) support this opinion by offering a phased adoption model of AI adoption in SMEs. Their model uses creation of awareness and then gradual engagement through low risk applications which will ultimately lead to the adoption of complex, task-specific, or even custom-built generative AI applications. All the stages focus on the human journey: the trust building stage, the fear overcoming stage, development of competence stage, and the shift organizational mindsets stage. This staged model reflects the learning curves observed in human-technology interaction that supports the value of psychological safety and progressive confidence-building processes as part of the AI adoption processes.

Adding more to the discussion of the human-centric approach, Almashawreh et al. (2024) studied the determinants of the AI adoption in Jordanian SMEs. In their findings

they reveal that organizational related factors like the contribution of managers, training, and rewards contribute greatly to human participation in the applicability of AI tools. As an example, the higher the degree of experimentation, failure tolerance, and innovation rewards granted by the management as perceived by employees, the more probable that exploration and trust will be exercised with generative AI. In contrast, a harsh or judgmental culture might quash the use of AI, irrespective of whether its technical aspects have been made easier to use. This indicates the social context of AI implementation implying that human-AI interaction could not be comprehensively interpreted out of its organizational and cultural environment.

Ebuka et al. (2025) provide the additional information about Nigeria where they examined the application of GenAI in customer relationship management (CRM) among SMEs. In their study, they discovered that although the level of performance-related attributes, such as the customer response time and individualization of responses, increased significantly, it was the respondents informing on the level of trust to the system that served as key influencers of the adoption results. In the given situation, trust was not reduced simply to the issue of correctness or precision; it was also influenced by cultural compatibility, user interface and felt transparency of the logic embedded in the decision of the AI. In other words, this suggested that SMEs were not comfortable with GenAI tools producing content that seemed too foreign or not aligned with local values; a lesson that emphasized the need to be contextually sensitive to AI-human interactions.

The emotional user response Is another major reason of the phenomenological living of AI. Everyone who gets introduced to GenAI at the first encounter experiences mixed feelings, which range between being fascinated and excited about it, as well as being skeptical and scared of it. Certain SME decision-makers state that they feel intimidated by perceived intelligence of GenAI systems, some of them being afraid of losing control or excessive reliance on automated tools. These emotional forces do not only determine the likelihood of the adoption of AI but also the way the AI is used (users are willing to regard their AI as a partner, tolerate the AI as a subordinate helper, or reject the contribution of the AI).

Besides, it seems that bidders internalize other situational factors such as gender, age, and previous digital experience to mediate the user-GenAI interface. Those with greater digital literacy may be more experimentative and dynamic, younger workers or some workers with low digital literacy levels may need to be onboarded and reassured in a more thoughtful manner. This necessitates individual training plans and a caring manager especially in culturally-based workforces as witnessed in majority of the SMEs in Saudi.

To recap it all, the human and generative AI relationship is caught in elaborate interplay among cognitive, emotional, cultural, and organizational factors. When understanding this interaction in terms of phenomenology, the researchers and practitioners can enjoy the subjective and situated character of adoption and consumption of AI. It shows not only the ways in which choices are made by the use of AI, but also how people deduce sense, claim control and bargain reliability in the sight of these revolutionary technologies. These lived experiences are critical to inform the development of human compatible, acceptable and effective AI systems within the SME environment, especially in culturally specified and fast-changing environments like Saudi Arabia.

1.5 Research Gaps and Justification

Nevertheless, even though the body of literature that researched the issue of introducing artificial intelligence (AI) into the process of making business decisions is on the rise, there are still substantial research gaps, especially concerning the sphere of GenAI in small and medium-sized enterprises (SMEs). Although recent literatures provide meaningful quantitative knowledge, the level of qualitative, experiential, and context-specific research that can best describe the lived experience of AI by SME leaders at ground level is sorely lacking.

On the one hand, most of the notable works in the area, like Ikbal (2025), Jaboob et al. (2025), or Hussain and Rizwan (2024), chiefly concentrate mostly on quantitative performance indicators (efficiency, profit margins, agility, and growth). Structured studies are usually performed based on structured survey or econometric models which are done to determine correlation between AI implementation and business performance. Such studies may be methodologically sound but are often likely to seek to model human

interaction with an AI on numerical proxy, overlooking the subjective, emotional, and interpretive dimension that governs the actual ways in which tools, such as ChatGPT or Gemini, are implemented in practice. The result has been a major gap in the knowledge of how SME decision-makers can process AI-generated outputs and incorporate them into their organizations and minds.

Secondly, despite the trend of increasing involvement of the emerging economies in the global digital transformation processes, there is few published qualitative literature regarding the adoption, adaptation, and localization of AI in these areas. In particular, Saudi Arabia, which is experiencing a razor-sharp transition to digitalization as part of Vision 2030, is underrepresented in human-centered AI research. The degrees of change observed by most of the available research, including that by Alsaiary et al. (2024) and Mabkhot & Basri (2024), are on the macro level, such as the improvement of supply chains or the creation of a digital infrastructure. Change at the micro level in the manner in which AI is felt, understood, and in some cases, opposed by individual decision makers in SMEs has, however, not been fully delved into. This is a critical omission since SMEs in Saudi Arabia represent close to 99% of the private sector and the key drivers of the nation in economic policy on diversification. Their interaction with the state-of-the-art technologies such as GenAI is a reason why this bond should be investigated more carefully than mere aggregate measures.

Third, one of the most important research gaps that are not frequently discussed is concerned with cultural and ethical contextualization. Increasingly, ethical frameworks and cultural values that report on how AI should be applied in Saudi Arabia do not match using AI in Western or East Asian societies such as where studies on GenAI are focused (as Polok and Dussin (2025) have emphasised. The perception of the new technologies and their uptake is shaped by the social-religious fabric of Saudi Arabia, the regulation ecosystem, and value system. The principle-oriented, as supported by Saudi Data and Artificial Intelligence Authority (SDAIA) implies that trust, compliance with the Islamic values, and ethical openness is part of the winning strategy of adopting AI technologies. Nonetheless, the manner in which these cultural and ethical issues are negotiated by individual SME leaders remains a relatively underexplored topic in the existing body of

knowledge, at least as far as the aspects of AI output potentially contravening long-established norms or the judgment of a human being.

Lastly, strategic sensemaking as applied to the age of generative AI is a concept that is not yet fully worked out. Although Lopez-Solis et al. (2025) and AlQahtani (2025) have partially referred to the changing nature of the balance between the process of judgment and machine-contributed suggestions, there is no major empirical contribution regarding how individuals in decision-making process mediate the ambiguity, resolve conflict between what an AI can suggest and what a person has experienced, or re-factor decisions within organizations based on the insights of the AI. It is especially applicable to SMEs where decisions are commonly made based on the intuition, risk factors and interpersonal information of the founders or managers not on the data analysis only. Dealing with GenAI tools being used more and more often, it is important to know how the tools shape our cognitive processes such as induction, forecasting, prioritizing and ethical reasoning.

Also, GenAI emotional and psychological responses are under-theorized. Although the discourse of excitement and enthusiasm is overwhelming in the means of promoting the ideas, most of the leaders of the SMEs might also feel anxious, skeptical, or even excessively dependent on AI-created content. Such responses of humans, particularly in settings where AI literacy is an up-and-coming skill, can affect the paths toward adoption unpredictably. As an illustration of this, we may take the case where a decision-maker who senses intrusion or is threatened by the capabilities of GenAI can deliberately turn away use of the technology or blindly use it to come up with improper strategic results. However, little is known about such emotional and cognitive tensions, which are not often investigated.

The other under-studied area would be the gendered, generational and professional diversity in experiences with GenAI. Nearly all studies assume a homogenous user base, but in reality SMEs decision makers differ a great deal in age, education, industry and technologically exposed. Logically, it can be assumed that younger managers in highly technological industries can use GenAI differently than older leaders in more traditional businesses. Absent a qualitative investigation concerning these differences, there is a

danger of creating unsound overgeneralized information that does not have an appropriate reading of the complexity of GenAI uses in various SME settings.

Lastly, there is a need to explore relevant organizational support structures to support or impede meaningful connection with GenAI. Research works such as the one by Almashawreh et al. (2024) and Qadeer et al. (2025) have provided clues, thus pointing out the concept of training, leadership, and internal policies as a factor that can affect the rates of adoption. But little has explored how such organizational settings influence the experience of using generative AI tools on a daily basis. An example is presented using how absence of internal AI policy affects the aptness of SME manager to trust AI based recommendations. Is there peer reinforcement into the team that leads to more experimentation with tools such as ChatGPT? These are very decisive questions which cannot be answered by surveys only.

Ultimately, whereas the technological properties of generative AI are exhaustively described, the social experiences, sense-making mechanisms, and affective responses that enrich the adoption of them are much less visible in the existing literature. In this study, the researcher seeks to address this gap by presenting a phenomenology, context-specific discussion of the experience of SME decision-makers in Saudi Arabia using generative AI to make strategic decisions. This paper is a welcome addition to existing studies about the importance of meaning-making, perception, and lived reality, which therefore makes it applicable in informing the policy on technology, education on AI, and ethics of innovation in the Kingdom.

CHAPTER TWO

METHODOLOGY

This chapter provides a description of the research methodology to be carried out in the investigation of lived experiences of decision-makers in Saudi Arabian small and medium-sized enterprises (SMEs) who implement generative artificial intelligence (AI) tools as part of their decision-making process. The research implemented a qualitative and phenomenological research design to reflect and capture the subjective meanings, interpretations, and attitudes of what participants attach to generative AI. The descriptions of the research design, participant and sampling strategy, data collection method, analysis method, and ethical considerations are presented in the following sections in detail.

2.1. Research Design

A qualitative research approach was adopted in the study, since best fit the exploration of phenomena that are complex, context-related, and outcome-based on meaning.

Phenomenological design is a qualitative approach that focuses on exploring and understanding how individuals experience and make sense of a particular phenomenon in their own words and perspectives (Creswell & Poth, 2018). In particular, a phenomenological design was chosen since it helps the researcher gain access to the lived experiences of participants and understand how they would think and interpret the given phenomenon of GenAI in their decision-making practices. As compared to quantitative methods which seek to quantify variables and attempt to disprove hypotheses, phenomenology focuses on how the world is perceived by individuals through the use of personal experience and consciousness.

The trust in AI, intuition, professional identity, ethical dilemmas, and interpretive practices, among other subjective and intangible dimensions that is of interest to the research, is also relevant to how decision-makers will approach GenAI, and phenomenology will be especially suitable to such a study. With the help of putting the voices of the participants involved in the process of AI supported decision-making

directly, this design addresses the orientation towards a human-centered approach to the study.

2.2. Participants and Sampling

The target population for this study includes decision-makers in SMEs operating in Saudi Arabia who have direct experience using generative AI tools in their business operations. These decision-makers include founders, CEOs, directors, department heads, and senior managers across various sectors such as retail, manufacturing, technology, logistics, finance, and services.

A purposive sampling strategy was used to ensure that only participants with relevant and meaningful experience will be included. The key inclusion criteria were defined as follows:

- Holding a decision-making role within an SME.
- Having at least six months of experience using generative AI tools (e.g., ChatGPT, Gemini, Copilot).
- Being located in Saudi Arabia and operating within the national SME definition.
- Willing to participate in a recorded interview and share their professional insights.

The study aimed to include between 8 and 12 participants, which represented a typical range for phenomenological research, allowing for depth without overwhelming the analysis.

The final sample size was determined as 10 participants based on data saturation the point at which no new themes emerged from subsequent interviews.

2.3 Data Collection

Data were collected through semi-structured interviews, which allowed for both guided exploration of core topics and flexibility for participants to elaborate on their unique perspectives. An interview protocol was developed based on the research questions and literature review. The protocol was developed covering the following areas:

- The participant’s role and responsibilities within the SME
- Their motivations for adopting generative AI

- Specific tools used and types of decisions supported by AI
- Perceived benefits, limitations, and challenges
- The balance between human judgment and AI recommendations
- Ethical, cultural, and strategic reflections
- Future outlook on AI integration in decision-making

Each interview lasted between 30 and 45 minutes and conducted either in person or via secure video conferencing tools, depending on the participant's location and preference. Interviews was conducted in English or Arabic, based on the comfort level of the participant. All interviews were conducted in English or Arabic, based on the comfort level of the participant. The interview data were recorded through note-taking, as the participants did not consent to audio recording, and were transcribed verbatim.

Table 1. Information about participants and interview process

Participant Code	Gender	Position/Role	Experience	Interview Mode (Face-to-Face / Online)	Language of Interview (Arabic/English)	Interview Duration (Minutes)	Recording Method
P1	Male	CEO – Retail Company	6 years	Online	English	40	Notes (No audio recording upon request)
P2	Female	Operations Manager – Marketing Agency	4 years	Face-to-Face	Arabic	35	Notes (No audio recording upon request)
P3	Male	IT Director – Technology Firm	8 years	Online	English	45	Notes (No audio recording upon request)
P4	Female	Logistics Supervisor – Supply Chain SME	5 years	Face-to-Face	Arabic	30	Notes (No audio recording upon request)
P5	Male	Training Manager – Educational Institution	2 years	Online	English	38	Notes (No audio recording upon request)
P6	Female	HR Coordinator – Services Sector	4 years	Face-to-Face	Arabic	32	Notes (No audio recording upon request)
P7	Male	Finance Analyst – Financial Services	6 years	Online	English	42	Notes (No audio recording upon request)
P8	Female	Creative Director – Media & Design Agency	5 years	Online	English	37	Notes (No audio recording upon request)
P9	Male	Co-founder – Startup (Technology)	7 years	Face-to-Face	English	45	Notes (No audio recording upon request)
P10	Female	Marketing Specialist – Advertising Agency	3 years	Online	Arabic	34	Notes (No audio recording upon request)

Participants were contacted through professional and business networking platforms such as LinkedIn, email correspondence, and referrals from SME associations in Saudi Arabia. Each potential participant was informed about the research purpose,

confidentiality measures, and voluntary participation. Although consent for audio recording was requested, participants preferred not to be recorded due to privacy and confidentiality concerns. Consequently, the researcher took detailed written notes during and immediately after each interview to capture the participants' responses accurately. All participants provided informed written consent prior to participation, and ethical considerations were strictly followed throughout the data collection process.

2.4 Data Analysis

The interview transcripts were analyzed using thematic analysis, following the six-phase framework developed by Braun and Clarke (2006). This method was chosen for its flexibility, transparency, and ability to generate rich, detailed themes that align with a phenomenological orientation.

The six phases of the analysis were conducted as follows:

1. **Familiarization with Data:** The researcher read and re-read the transcripts to gain an overall sense of the data, taking initial notes on patterns and meanings.
2. **Generating Initial Codes:** Transcripts were coded line by line to identify meaningful units related to experiences, interpretations, emotions, decisions, and AI interactions.
3. **Searching for Themes:** Codes were grouped into potential themes reflecting patterns across different participants.
4. **Reviewing Themes:** Themes were refined to ensure coherence within each theme and distinction between them. Redundant or overlapping themes were merged.
5. **Defining and Naming Themes:** Each theme was clearly defined, named, and described with supporting excerpts from the interviews.
6. **Producing the Report:** The final thematic structure was translated into analytical narratives presented in the findings and discussion chapters.

To support the rigor of the analysis, thee analysis was conducted manually, following a systematic coding process to identify patterns, themes, and relationships across the participants' responses.

2.5 Ethical Considerations

This study strictly adhered to ethical research standards. Ethical approval was obtained from the Institutional Review Board at Istanbul Gelisim University prior to data collection. Before the interviews, an informative email was sent to participants that included the purpose of the study, the voluntary nature of participation, data confidentiality, and the right to withdraw at any time without penalty. Participants were asked to reply with their agreement to participate before scheduling the interviews.

To ensure confidentiality, all collected data were anonymized, and participants were identified only through codes. The information obtained was stored securely and used solely for academic purposes.

The researcher paid attention to cultural sensitivity, especially considering the Saudi context where values of privacy, hierarchy, and ethical conduct are particularly significant. Interviews were conducted in a professional, respectful manner, and participant comfort were prioritized at all times.

2.6. Trustworthiness of the Research

To ensure the quality and integrity of the research findings, several strategies were implemented to establish the credibility, transferability, dependability, and confirmability of the study. These measures strengthened the rigor of the qualitative research and enhanced the trustworthiness of the results.

Credibility: Credibility was ensured through prolonged engagement with the data. The researcher carefully read each transcript multiple times to gain an in-depth understanding of the participants' experiences and meanings. Detailed coding was conducted manually, and the codes were reviewed to identify consistent patterns and relationships. In addition, discussions were held with the research supervisor to verify interpretations and ensure inter-coder reliability. This process minimized bias and increased the accuracy of the findings.

Transferability: Transferability was achieved by providing a thick description of the research context, participants, and findings. The characteristics of the SMEs, the professional roles of the participants, and the socio-cultural context of Saudi Arabia were

described in detail to allow readers to determine whether the findings could be applicable to other similar settings. This detailed contextualization helped situate the study within a realistic and understandable framework.

Dependability: Dependability was maintained through clear documentation of all steps of data collection and analysis. An audit trail was developed that included interview protocols, coding notes, and thematic development records. Coding was conducted collaboratively by the researcher and the supervisor, and findings were compared and discussed. Final themes were refined and constructed based on mutual agreement, which ensured consistency and reliability throughout the analysis process.

Confirmability: Confirmability was supported by ensuring that the findings were grounded in the participants' voices rather than the researcher's assumptions. The researcher avoided using leading or suggestive questions during the interviews and maintained neutrality throughout the research process. Each theme was supported by direct quotations from participants, demonstrating that the results emerged naturally from the collected data. Reflexive notes were also used to track the researcher's thoughts and decisions, ensuring transparency in interpretation.

CHAPTER THREE

FINDINGS

The chapter provides the empirical results of the research, which investigates the experience and perception of decision-makers in Saudi Arabian SMEs in relation to the usage and integration of generative AI in their decision-making. Continuing on the phenomenological design of the study, here we will focus on the lived experiences of the study participants and the meanings they ascribe to the use of AI in their occupation. Instead of offering numerical data, the chapter aims to reflect the subtleties of the way generative AI has affected managerial behavior, strategic thinking and organizational culture in the SME context in Saudi Arabia.

The analysis was based on the thematic model of Braun and Clarke (2006) In which interview transcripts were coded, recurring themes identified and the themes then grouped into themes representing common experience in all respondents. These categories were further subdivided into larger themes that give an all-inclusive view of the phenomenon being studied. The themes are not only a personal impression of the issues but also present organizational dynamics, cultural implications, and future expectations about the adoption of AI.

The findings are presented across nine main themes:

1. Roles and Decision-Making Responsibilities
2. Adoption of Generative AI
3. Types of AI Tools and Applications
4. Impact on Decision-Making
5. Balancing Human Judgment with AI
6. Benefits of AI
7. Challenges and Concerns
8. Organizational and Team Perspectives
9. Future of AI in Decision-Making

Each theme is introduced with a description of its significance, followed by categories and illustrative patterns drawn from participants' accounts. Tables are provided

to summarize the findings in a structured manner, and direct quotations from interviewees are included to strengthen the authenticity and credibility of the results. This approach ensures that the voices of SME decision-makers are foregrounded while offering a coherent and systematic presentation of the data.

3.1. Roles and Decision-Making Responsibilities

The first theme that emerged from the analysis relates to the roles and decision-making responsibilities of SME leaders in Saudi Arabia. This theme highlights how participants defined their managerial roles, the types of decisions they make, and the organizational structures that shape these responsibilities. Understanding these dimensions is essential, as they provide the context in which generative AI is being integrated and used to support decision-making processes.

This theme consists of three categories:

1. Years in Role – the length of time participants have been in their current managerial or leadership position.

2. Types of Decisions – the nature of strategic, operational, and creative decisions made by the participants.

3. Decision-Making Structure – whether decisions are centralized, collaborative, or hierarchical within the organization.

The table below summarizes these categories, patterns across participants, and illustrative examples:

Table 2. Theme 1 – Roles and Decision-Making Responsibilities

Theme	Categories	Patterns Across Participants	Illustrative Examples
Roles and Decision-Making Responsibilities	Years in Role	Ranged from 2–8 years, with most between 3–6 years.	P3 – 8 years in IT services; P5 – only 2 years in education.
	Types of Decisions	Participants involved in strategic, operational, and creative decisions.	P1 – retail growth; P2 – campaign-related operations; P8 – campaign approvals.
	Decision-Making Structure	Predominantly collaborative but hierarchical, with CEOs/Directors holding final responsibility.	P9 – collaborative with co-founder; P4 – structured with board oversight.

3.1.1. Experience in current role

The majority of participants had three to six years of experience in their current positions, which provided them with substantial industry knowledge while also reflecting the dynamic and evolving nature of leadership in SMEs. For instance, Participant P3, who had worked in the IT services industry for eight years, mentioned that his long experience was a strong asset when it came to determining the trustworthiness of AI-generated results. In contrast, Participant P5, who had only two years of experience in an educational SME, admitted that he relied more heavily on AI tools to compensate for his limited managerial experience.

3.1.2 Decision types

Participants reported that they made diverse types of decisions across strategic, operational, and creative areas. For example, Participant P1, a retail CEO, highlighted his role in driving strategic growth and developing partnerships. In contrast, Participant P2, an operations manager, described her decisions as daily and hands-on, particularly in campaign management. Similarly, Participant P8, a creative director, emphasized that she was responsible for approving design strategies and ensuring that marketing campaigns were culturally relevant and aligned with company goals.

3.1.3 Decision-making structure

Across cases, the decision-making structure was described as both collaborative and hierarchical. Although teams were often consulted, the ultimate decisions were typically made by CEOs, directors, or founders. As Participant P9 explained:

"We do it in collaboration primarily with my co-founder, yet after all, technology adoption decisions are often taken by me."

Likewise, Participant P4 noted that she submitted logistics proposals, but the final approval was made by the board.

This theme defines the managerial context in which generative AI is implemented. It shows that decision-making practices vary across industries but generally combine hierarchical authority with collaborative influence a structure that directly affects how AI-generated recommendations are received and adopted within SMEs.

3.2 Adoption of Generative AI

The second theme that emerged from the analysis is the adoption of generative AI among SME leaders. This theme focuses on when and how participants began using AI tools, their motivations for adoption, and the external influences that shaped their decisions. The findings indicate that adoption was largely motivated by the need for efficiency, innovation, and competitiveness, with many participants influenced by global trends, Vision 2030 initiatives, and peer industries.

The theme consists of three categories:

1. Start of AI Use – when participants first adopted generative AI in their organizations.

2. Motivations – the primary drivers behind adopting AI tools.

3. Influences – external factors, such as industry trends, peers, or national initiatives, that encouraged adoption.

Table 3. Theme 2 – Adoption of Generative AI

Theme	Categories	Patterns Across Participants	Illustrative Examples
Adoption of Generative AI	Start of AI Use	Most participants adopted AI between 2022–2023, often beginning with personal experimentation before organizational integration.	P1 – 2022 for retail analytics; P10 – 2023 for creative workflows.
	Motivations	Efficiency, innovation, and gaining a competitive edge were the most cited reasons.	P3 – automation and backlog reduction; P5 – solving training bottlenecks.
	Influences	Adoption influenced by global digital trends, Saudi Vision 2030, and peer industries.	P7 – finance case studies; P2 – team and industry suggestions.

3.2.1. Start of AI use

Most respondents stated that they began using generative AI in 2022-2023, and at this time, as an individual hobby or a pilot project. Only in the future, AI became a formally part of their companies. In the example, P-1 wrote: In 2022, I first tried ChatGPT to find out whether this tool could be used to assist us in retail analytics. It was not long before it began to dawn on us that it would save us hours of reporting work. In the same way, P-10 wrote that in 2023, she used ChatGPT and Gemini to solve innovative bottlenecks in agency campaigns.

3.2.2. Motivations

The greatest drivers to adoption were efficiency and innovation among all participants. P-3, an IT director, stated that his motivation was to trim the list of backlog of IT support as well as to boost development. Similarly, P-5 who had experience in training services stressed that AI helped him write course outlines within several days, instead of weeks, which saved him money and improved his creativity.

3.2.3. Influences

External conditions, such as trends in the global industry, what peers do and Saudi Arabian Vision 2030, which promotes digitalization, also played a role in influencing the decision of the participants to integrate AI. With regard to finance, P-7 said: “After reading case studies on AI in global finance, I felt that it could be employed in the analysis of the risks in our company. P-2 further stated that her team was motivated and industry trends motivated her to use ChatGPT to generate content in a campaign.

This shows that Saudi SMEs have not adopted generative AI haphazardly but as necessitated by efficiency, and further supported by the external opportunities. Although organizational use was more common to match strategic plans and national digital transformation efforts, some participants started using AI as a matter of curiosity.

3.3. Types of AI Tools and Applications

The third theme focuses on the types of AI tools and applications that SME leaders reported using in their organizations. This theme provides insight into the diversity of tools employed, the specific business functions they were applied to, and the extent of their integration into daily operations. Findings show that while ChatGPT was the most widely used tool, participants also mentioned other AI applications tailored to marketing, data analytics, and creative content development.

This theme consists of three categories:

1. AI Tools Used – the specific tools participants reported using.

2. Applications in Business Functions – the areas of the business where AI tools were applied.

3. Integration Level – whether AI was used experimentally, in limited functions, or fully integrated into decision-making processes.

Table 4. Theme 3 – Types of AI Tools and Applications

Theme	Categories	Patterns Across Participants	Illustrative Examples
Types of AI Tools and Applications	AI Tools Used	ChatCIPT was the most commonly used platform, followed by Gemini, Midlownex, and other AI-powered analytics platforms.	P1 – ChatGPT for reports; P8 – MidJourney for creative design.
	Applications in Business Functions	Tools applied in marketing, training, analytics, HR, and customer service.	P5 – AI for training course design; P2 – content creation; P7 – risk analysis.
	Integration Level	Usage ranged from pilot/testing phases to daily integration in decision-making.	P3 – partial integration in IT; P9 – AI embedded in strategic discussions.

3.3.1. AI tools used

ChatGPT was the most popular tool referred to by the participants, primarily because it is available and can be used in a variety of ways. As an illustration, P-1 pointed out: ChatGPT helped me become a helper when writing reports and proposals. Others were also mentioned: P-8 was using MidJourney to create a design, and P-3 was using AI analytics software to triage IT support tickets.

3.3.2. Business functions

The interviews showed that there is a very diverse scope of application since generative AI may be implemented in various business functions. P-2 utilized AI in developing the content of marketing, and P-5 utilized AI in training course development and delivery. P-7 stated that AI helped in risk analysis and investment predictions, and P-10 said that she used Gemini to brainstorm ideas on creative campaigns.

3.3.3. Level of integration

The participants differed in the degree of AI integration. Other SMEs were in the pilot phase and trying to use AI in particular functions. There are others who had been more systematic in integrating AI. According to P-9, he clarified: “We began to include AI recommendations during our strategy sessions and we view it as a new co-worker. On

the contrary, P-3 confessed: “We are experimenting with AI in IT and it is not a tool that people can use on a regular basis yet.

This demonstrates the fact that Saudi SMEs do not use one specific tool or application but investigate a range of generative AI applications in various aspects of business. Nonetheless, there is an imbalanced degree of integration where certain organizations view AI as a test feature and others are engaging it as a more significant part of the tactical process.

3.4. Impact on Decision-Making

The fourth theme shows how generative AI has influenced the decision making process among SMEs. The results suggest that AI tools affected decision-making in three main ways: they made the processes of decision-making faster and more efficient, better and more accurate insights at the disposal of the managers, and offered strategic planning, based on data-driven suggestions. Although AI was regarded as a useful tool, the participants stressed that this technology does not replace human judgment, but supplement it.

This theme consists of three categories:

1. Speed and Efficiency – how AI reduced time spent on routine or repetitive tasks.

2. Quality and Accuracy – the extent to which AI improved decision-making reliability.

3. Strategic Planning Support – AI’s contribution to long-term and high-level decisions.

Table 5. Theme 4 – Impact on Decision-Making

Theme	Categories	Patterns Across Participants	Illustrative Examples
Impact on Decision-Making	Speed and Efficiency	AI helped accelerate reporting, analysis, and content creation, enabling quicker decisions.	P1 – retail growth reports completed faster; P5 – training outlines developed in hours.
	Quality and Accuracy	AI provided more comprehensive and accurate insights, though validation by humans was required.	P7 – AI reduced human error in financial forecasts; P2 – content quality improved.
	Strategic Planning Support	AI was used for forecasting, market analysis, and scenario planning in SMEs' strategic processes.	P3 – IT adoption strategies informed by AI predictions; P9 – strategic discussions enriched with AI input.

3.4.1. Speed and efficiency

Participants consistently reported that AI enabled them to accomplish tasks faster, freeing up time for higher-level decision-making. P-1 explained: "Where I would have taken days to prepare detailed sales reports, now with the support of AI it takes only hours." Similarly, P-5 emphasized the efficiency in training services: "I am able now to prepare course outlines within less than a day; we used to spend a full week."

3.4.2. Quality and accuracy

Several participants noted that AI enhanced the quality of their work by reducing errors and providing more detailed insights. P-7, working in finance, observed: "The use of AI can minimize the risk of human bias and error in risk analysis, although I still verify the results to be accurate." P-2 added: "AI-generated drafts are more precise in terms of grammar and style and save on editors."

3.4.3. Strategic planning support

AI was also applied to support strategic-level decisions alongside operational efficiency. P-3 stated: "We have used AI to simulate adoption of new IT systems." P-9 further explained: "AI introduced new ideas to our boardroom meetings, particularly when discussing ways of entering the market."

This theme demonstrates that, although generative AI enabled faster decision-making and improved quality, it was primarily considered a supportive tool, not an independent decision-maker. Participants emphasized the importance of human oversight to ensure alignment between AI outputs and organizational goals and values.

3.5. Human Judgment versus the AI

The fifth theme focuses on the ability of the SME leaders to integrate human judgment and AI-generated insights in decision-making. Although participants did not refute the effectiveness and precision of generative AI, they noted that AI output must not be taken at face value. Rather, managers perceived AI both as a helping hand whose recommendations needed reasonable verification, contextualization, and ultimate acceptance by human decision makers.

This theme consists of three categories:

1. Human Oversight – ensuring that final decisions are reviewed and approved by people.

2. Trust and Skepticism – levels of confidence in AI outputs and the caution exercised by participants.

3. Complementary Roles – AI as a tool that enhances but does not replace human expertise.

Table 6. Theme 5 – Balancing Human Judgment with AI

Theme	Categories	Patterns Across Participants	Illustrative Examples
Balancing Human Judgment with AI	Human Oversight	All participants emphasized that final decision-making rests with humans.	P4 – board approval required; P9 – co-founders review AI outputs.
	Trust and Skepticism	Participants expressed both trust in AI's efficiency and skepticism regarding its reliability.	P7 – financial predictions double-checked; P2 – "AI drafts, I refine."
	Complementary Roles	AI was consistently described as a tool that supports, not replaces, managerial expertise.	P1 – "AI is like an assistant"; P8 – "AI saves time, but creativity is mine."

3.5.1. Human oversight

A recurring theme was the preference to keep final decisions in human hands. P-4 observed: "The ultimate decision concerning a proposal is always made by the board, despite the fact that AI has come up with it." Similarly, P-9 emphasized that AI was not the final word: "All AI recommendations are open to review by the co-founders. We never execute an AI recommendation without verifying it with our team."

3.5.2. Trust and skepticism

While participants valued AI contributions, they were cautious about its limitations. P-7 noted: "AI predictions in finance are helpful; however, I never accept them without conventional means." P-2 added: "AI assists me in writing campaign content within a short period, but I polish it and adapt it to cultural peculiarities." This balance between trust and skepticism was considered key to avoiding blind reliance on technology.

3.5.3. Complementary roles

AI was viewed as an aid rather than a replacement for human work. P-1 described AI as a "junior analyst who assists but is not responsible." P-8, the creative director, stated: "I save time with AI, but all the work and conclusions should be my own."

This theme demonstrates that Saudi SMEs are aware of both the opportunities and constraints of AI. Leaders adopt a hybrid approach, leveraging AI to increase efficiency while retaining human judgment to ensure cultural fit, ethical accountability, and strategic consistency.

3.6. Benefits of AI

The sixth theme is the benefits of generative AI as construed and used by the leaders of SMEs in Saudi Arabia. In any industry, actors said that AI tools provided their organization with substantial value in terms of efficiency, cost reduction, innovation, and increased business opportunities. Notably, the positive effect was not only on productivity but the participants also stressed the role of AI in employee development, customer interaction, and organizational competitiveness according to the digital transformation priorities of the Saudi Arabian Vision 2030.

This theme consists of five categories:

1. Efficiency and Time-Saving – reducing the time required to perform routine or complex tasks.

2. Cost Reduction – lowering operational and human resource expenses through automation.

3. Innovation and Creativity – enhancing the generation of new ideas, content, and solutions.

4. Decision Support – providing deeper insights and analysis to support managerial decisions.

5. Competitiveness and Market Positioning – strengthening SMEs' ability to compete in local and international markets.

Table 7. Theme 6 – Benefits of AI

Theme	Categories	Patterns Across Participants	Illustrative Examples
Benefits of AI	Efficiency and Time-Saving	AI reduced the time for report writing, campaign planning, and training development.	P1 – reports generated in hours instead of days; P5 – course design accelerated.
	Cost Reduction	SMEs reduced reliance on outsourcing and optimized internal resources.	P2 – less budget spent on copywriting; P7 – reduced costs in financial forecasting.
	Innovation and Creativity	AI stimulated creativity and idea generation, particularly in marketing and design.	P8 – MidJourney enhanced visual design; P10 – AI brainstormed campaign ideas.
	Decision Support	AI provided managers with more reliable data and scenario planning.	P3 – IT adoption strategies modeled by AI; P9 – AI informed strategic discussions.
	Competitiveness and Market Positioning	AI adoption helped SMEs align with Vision 2030 and compete globally.	P4 – logistics firm improved delivery efficiency; P7 – finance firm gained edge over competitors.

3.6.1. Efficiency and time-saving

Efficiency was pointed out by almost all participants as a fundamental advantage of using generative AI. The most tedious activities like writing of reports, training materials and marketing content were done in a fraction of the time taken before. According to P-1, the process of preparing quarterly sales reports was time-consuming as it would take two or three days, however, AI can now complete the task within a few hours. Likewise, P-5 told: At present, I can create a training course which would take me a week to create; with the help of AI, it takes me less than a day. This process saved time and enabled managers and employees to do strategic and creative work instead of managing.

3.6.2. Cost reduction

Some of the respondents associated the use of AI with the reduction in costs. SMEs also had an opportunity of redistributing budgets more effectively by automating tasks that were either being outsourced or manpower intensive. As P-2 pointed out: This is because we had been outsourcing a lot of copywriting and content creation in the past. Using AI we can generate the majority of drafts in-house and this helped us to cut down on our marketing costs. In finance, P-7 gave the following addition: “AI has made us less reliant on costly consultants to provide us with predictive analysis we can now do it in-house.

3.6.3. Innovation and creativity

Generative AIs were also considered a creative collaborator that boosted brainstorming, design and content creation. A creative manager, P-10, explained: When I am stuck, I will call on AI to give me ten ideas what the campaign should be like- this opens my eyes and mind. P-8 highlighted the way MidJourney aided her design work: the visual drafts that AI generates motivate our designers, it is like having a creative assistant at all times. In this way, AI not only optimized the work but also triggered innovation within functions.

3.6.4. Decision support

In addition to operational benefits, it was emphasized that AI will enhance the quality of decisions made by the participants, as it gives a deeper insight, plans scenarios, and predictive analytics. P-3 clarified: “AI enabled us to model the risks and costs that might occur in using new IT systems, before its implementation. P-9 also stated: AI-generated scenarios provide new angles during board meetings that we never thought of before and thus we make our discussions richer and more informed.

3.6.5. Competitiveness and market positioning

Lastly, several participants also related AI adoption to the competitiveness in the long run, not only in Saudi Arabia, but also in other places. A logistic participant, P-4 shared: “Through the combination of AI with route planning, we managed to gain better

speed and reliability of deliveries, which led to the increase of clients' satisfaction. According to P-7, the strategic benefit was in the field of finances: An early integration of AI tools provided us with a competitive advantage over other companies that are still stuck in the use of outdated practices. Some respondents also related AI adoption to Saudi Vision 2030 as they viewed it as a subset of the country-level digital transformation strategy SMEs need to keep pace with to remain relevant.

3.7. Challenges and Concerns

Although the participants identified various advantages of generative AI, the seventh theme demonstrates the great variety of challenges and issues encountered by SMEs in Saudi Arabia when adopting and implementing generative AI. These issues can underline the difficulties of adopting AI in the organization and the necessity of balanced solutions that can reduce the threats but also use the opportunities.

The findings suggest that challenges fall into five major categories:

1. Data Privacy and Security – concerns about protecting sensitive organizational and customer information when using AI.

2. Accuracy and Reliability – risks of AI producing incorrect, biased, or contextually inappropriate outputs.

3. Ethical and Cultural Concerns – worries about AI-generated content conflicting with cultural norms or ethical standards.

4. Employee Resistance and Skills Gap – challenges in staff adaptation, fear of replacement, and lack of AI-related skills.

5. Cost of Adoption and Integration – financial and resource burdens associated with introducing and maintaining AI systems.

Table 8. Theme 7 – Challenges and Concerns

Theme	Categories	Patterns Across Participants	Illustrative Examples
Challenges and Concerns	Data Privacy and Security	Fear of exposing sensitive company or client data to third-party AI platforms.	P7 – financial data confidentiality concerns; P2 – reluctance to upload client content.
	Accuracy and Reliability	AI outputs sometimes lacked contextual accuracy or contained errors, requiring human verification.	P1 – "AI drafts, but I must fact-check"; P9 – AI predictions occasionally misleading.
	Ethical and Cultural Concerns	Worries that AI-generated outputs may conflict with cultural norms or ethical standards.	P8 – content sometimes culturally inappropriate; P5 – educational content required adjustment.
	Employee Resistance and Skills Gap	Some employees resisted adoption, fearing job loss or lacking digital literacy.	P4 – warehouse staff skeptical of AI tools; P6 – team training required.
	Cost of Adoption and Integration	SMEs faced expenses in AI integration, training, and system updates.	P3 – IT investment strain; P10 – creative agency struggled with subscription costs.

3.7.1. Data privacy and security

Respondents were of great concern regarding the handling of sensitive information in the use of generative AI tools when they are hosted on external platforms. According to P-7, confidentiality is all in the field of finance. I cannot afford to post uncooked financial data on third-party AI solution. Likewise, P-2 talked about her reluctance: We do not share actual client data with AI as we do not know where such data goes. All these issues suggest that data governance is a significant problem to SMEs, especially in the highly-regulated sectors such as finance and healthcare.

3.7.2. Accuracy and reliability

Despite the enhanced efficiency, the participants recognized the reduction in accuracy of AI. P-1 wrote: AI writes reports too fast, however, I always check the fact because mistakes remain. The same issue was expressed by Saleh P-9 in the strategy debate: “There are occasions when AI releases forecasts that may appear persuasive yet become deceptive. These stories reveal the danger of depending on the results of AI uncritically.

3.7.3. Ethical and cultural concerns

Participants of the creative and education world were particularly sensitive to cultural appropriateness. As explained by P-8: “MidJourney can occasionally generate not culturally-appropriate graphics, and we must carefully filter outputs. P-5 also wrote: AI-generated learning content had to be adapted to Islamic principles and the Saudi culture. These difficulties highlight the necessity of developing AI application according to the local norms and ethics.

3.7.4. Employee resistance and skills gap

Internal adoption did not always go well. There were employees who were also opposed to the AI tool because they feared losing their jobs and others were learning the technical side. One respondent (P-4) employed in the field of logistics explained: “I work in our warehouse and the employees were afraid of AI, claiming that it was going to take away their job”. In the same manner, P-6 observed: “We were forced to conduct several trainings to our workers so that they could know how to make AI productive.” Such issues are the human aspect of technological change, which demands powerful change management strategies.

3.7.5. Cost of adoption and integration

Lastly, cost proved to be a viable hurdle to SMEs who had fewer resources. P-3 elaborated: IT team required new infrastructure to incorporate AI and that was a financial burden to us. P-10 went ahead to assert: AI subscriptions even to design tools can be expensive to the small creative firms. This implies that even though AI is beneficial in the

long-term, implementation and continued maintenance fees may be too expensive to be adopted by resource-limited SMEs.

3.8. Organizational and Team Viewpoints

The eighth theme is the organizational and team level view of the adoption and utilization of generative AI in SMEs. Although the focus of the discussion in previous themes was typically on individual decision-makers, the current theme demonstrates how the adoption of AI affected the organizational culture, teamwork, and leadership habits. These results indicate a combination of passion and care, and teams change differently based on the size of the organization, industry, and style of leadership.

This theme consists of four categories:

1. Cultural Shift within Organizations – how AI adoption influenced openness to technology, innovation, and change.

2. Team Collaboration and Dynamics – effects of AI on teamwork, communication, and task distribution.

3. Leadership and Change Management – leadership strategies in guiding AI adoption and addressing resistance.

4. Employee Development and Skills – opportunities for upskilling and fostering digital literacy among staff.

Table 9. Theme 8 – Organizational and Team Perspectives

Theme	Categories	Patterns Across Participants	Illustrative Examples
Organizational and Team Perspectives	Cultural Shift within Organizations	AI adoption created a culture of innovation but also anxiety about change.	P1 – "AI signals we are a forward-looking company"; P4 – employees worried about losing jobs.
	Team Collaboration and Dynamics	AI reshaped collaboration, shifting some tasks from humans to technology.	P2 – AI drafts improved teamwork; P8 – designers collaborated better with AI inspiration.
	Leadership and Change Management	Strong leadership was required to encourage adoption and reduce resistance.	P9 – co-founder-led workshops; P6 – leadership promoted training sessions.
	Employee Development and Skills	Teams used AI adoption as an opportunity to learn new skills.	P5 – trainers learned to design AI-assisted curricula; P7 – finance team trained on AI analytics.

3.8.1. Cultural shift within organizations

Some participants talked about the use of AI as a cultural shift in their organizations. To others, it strengthened a spirit of innovation and progressive thinking whereas to others, it instilled fear of being laid off or relegated to different positions. P-1 thought: "It sends signals to our partners and clients that we are a progressive company and we are looking into the future. Conversely, P-4 said: "Employees were initially scared that AI would take their jobs away, so they would need management reassurance.

3.8.2. Team co-operation and dynamics

The collaboration of teams was also slightly influenced by AI. P-2 clarified: At this point, when AI writes the initial version of our campaign, the team will be able to work on its refinement together, which, in fact, enhanced cooperation. P-8 mentioned how AI generated creativity on her design team: "AI-generated images served as a starting point after which the staff brainstormed on improving them- in fact, it brought us closer. These results indicate that AI has the ability to transform teamwork by redirecting the emphasis on repetitive work to the higher-value teamwork.

3.8.3. Management change leadership

Leadership became a pivotal issue when it comes to the organizational attitude toward the concept of AI adoption. P-9 explained the way he and his co-founder did it to facilitate adoption: “We held internal workshops to demonstrate to the employees how AI can help them, not replace them. Equally, according to P-6, leadership fostered ongoing training: “We used to provide training reinforcement in order to ensure that our employees will feel empowered and not intimidated by AI: We invested time in training sessions to make our staff feel empowered and not threatened by AI. It required a strong leader to create trust and overcome opposition.

3.8.4. Employee development and skills

Instead of considering AI as a threat, certain organizations used AIs as the chance to upskill their workers and develop digital literacy. P-5 observed: “Our instructors got trained to apply AI to designing courses, which enlarged their capabilities and helped increase their confidence. P-7 said: We have trained our finance staff to operate within AI analytics, and they have become more competent and competitive. Such stories indicate that SMEs will be able to turn AI use into a professional development tool, which will also enhance organizational resiliency.

3.9. The future of AI in Decision-Making

The ninth theme is that of expectations and visions of the participants in the future of AI in decision making within SMEs in Saudi Arabia. Although participants recognized the existing constraints and obstacles of AI, they were hopeful at its increased presence in business strategy, industry competition, and national digitalization. Their opinion is correlated with the objectives of Saudi Vision 2030, according to which AI becomes a factor of economic diversification and innovation.

This theme consists of four categories:

1. Increased Integration in Decision-Making – expectations that AI will become more deeply embedded in strategic and operational decisions.

2. Advances in Technology – anticipation of improvements in AI capabilities, accuracy, and customization.

3. Shaping Industry Competitiveness – belief that AI adoption will become essential for SMEs to compete regionally and globally.

4. Alignment with Saudi Vision 2030 – recognition of AI as part of the national agenda for innovation and digital transformation.

Table 10. Theme 9 – Future of AI in Decision-Making

Theme	Categories	Patterns Across Participants	Illustrative Examples
Future of AI in Decision-Making	Increased Integration in Decision-Making	Participants expected AI to be fully integrated into daily operations and long-term strategies.	P1 – AI will handle routine analytics; P9 – AI to be part of strategic boardroom discussions.
	Advances in Technology	Participants anticipated more accurate, industry-specific, and context-aware AI systems.	P7 – "AI will improve risk models"; P8 – "Creative tools will evolve to understand culture better."
	Shaping Industry Competitiveness	SMEs saw AI as crucial for staying competitive in both local and global markets.	P4 – logistics competitiveness; P10 – creative agencies competing regionally.
	Alignment with Saudi Vision 2030	AI viewed as integral to Saudi Arabia's national goals of innovation and digital transformation.	P2 – "AI is part of the digital future"; P6 – "Vision 2030 makes AI adoption unavoidable."

3.9.1. Increased integration in decision-making

Many participants expected AI to move beyond pilot projects and become fully integrated into organizational processes. P-1 explained: "In the future, AI will take care of most routine analytics so managers can focus on strategy." P-9 emphasized its strategic role: "I can imagine AI being present in every boardroom discussion, providing data-driven scenarios for us to evaluate."

3.9.2. Advances in technology

Participants anticipated that AI tools would become more accurate, reliable, and context-sensitive in the near future. P-7 predicted: “Risk models in finance will be far more advanced with AI in the next five years.” P-8 added from a creative perspective: “I believe AI tools will soon adapt to cultural contexts, so we won’t have to filter outputs as much as we do today.” This optimism reflects the expectation that AI’s current weaknesses will be addressed through continuous technological development.

3.9.3. Shaping industry competitiveness

Participants consistently linked the future of AI to competitiveness. P-4 explained: “In logistics, the companies that fully integrate AI will dominate the market, especially in delivery optimization.” P-10 echoed this in the creative sector: “If we don’t keep up with AI, international agencies will easily outpace us. It’s no longer optional.” This shows that SMEs perceive AI as a determinant of survival and growth in increasingly digitalized markets.

3.9.4. Alignment with Saudi Vision 2030

Finally, many participants contextualized AI adoption within Saudi Arabia’s Vision 2030, which emphasizes digital transformation and innovation. P-2 explained: “AI is part of our digital future. If we don’t adopt it, we will fall behind the goals of Vision 2030.” P-6 reinforced this view: “With Vision 2030 pushing innovation, AI adoption is not just a choice; it’s a necessity.” These accounts suggest that SMEs view AI adoption not only as a business strategy but also as a national responsibility aligned with broader development goals.

CONCLUSION AND RECOMMENDATIONS

The aim of the study was to examine how generative artificial intelligence influences the decision-making process in Saudi Arabian small and medium-sized enterprises (SMEs), with respect to cultural, organizational, and technological conditioning of managerial experiences, the quality of decision-making, and innovation capability. The qualitative phenomenological approach of the study was aimed at capturing the lived experiences of business executives in a fast-evolving, digital world, in which generative AI tools, including ChatGPT, Gemini, and Copilot, are becoming part of the managerial processes. The topicality of the subject matter in the given context is immense because the vision of Saudi Arabia 2030 promotes the process of digital transformation, entrepreneurship, and sustainable development in every segment of the economy.

The results showed that managers think of generative AI as a disruptive and transformative force. Participants had a steady improvement in analytical accuracy, decision-making rate and imagination of devising creative solutions. The AI tools were defined as allowing to get insights quicker, automate monotonous work, and help in strategic planning with the help of data-based predictions. These perceptions are consistent with previous studies by Alsaiary et al. (2024) and Alqahtani and Alghamdi (2023) who established that the adoption of AI can help to increase the efficiency of the decision-making process at the same time increasing ethical and cultural concerns. Nonetheless, regardless of the optimism, the participants showed some reservations towards the issues of data reliability, content authenticity, and reliance on algorithms. The human judgment was the final judge of the quality and the relevance of the situation to many.

The culture and organizational dynamics were dominant factors that influenced the way leaders interacted with AI technologies. The decision-makers have stressed the significance of trust, transparency, and the leader support in the successful implementation. Even though there were those who perceived AI as an empowerment tool in line with the national modernization process, others were careful, citing issues of workforce balancing and loss of human creativity. This two-sidedness as an AI both as a

booster and as a source of difficulty reflects the dissonance between technological aspiration and cultural persistence, which Mabkhot and Basri (2023) note in digital transformation in Saudi businesses.

The cost implication is major. SMEs constitute more than 99% of Saudi business and play a significant role in the employment and innovation. The combination of AI is likely to deliver great productivity and competitive advantages. However, as respondents observed, the lack of finances, lack of training, and the lack of AI-professionalism among professionals limit the adoption. These obstacles demonstrate that specific assistance and systematic instructions are necessary so that smaller companies could be able to use AI to its maximum capacity and at the same time not conflict with the moral and cultural values of Saudi society.

To solve these challenges in the system, a number of strategies were developed as a result of this research. In the case of organizations, structured AI adoption frameworks, frequent staff education, and a clear policy on data management were found to be very necessary. Respondents emphasized on leadership vision and organizational culture that promote experimentation and learning. On a governmental scale, the policy interventions, including SME-oriented AI grants, national training projects, and collaborating with the Saudi Data and Artificial Intelligence Authority (SDAIA) were considered essential facilitators. Vision 2030 programmes are examples of national commitments toward innovation and still more effective enforcing mechanisms and awareness campaigns in cultures are needed to make sure that AI is used responsibly.

The thesis offers an addition to the literature by combining technological, organizational, and cultural aspects of AI adoption in emerging economies, which is a localized but comparative point of view. It weighs more heavily on the voices of Saudi decision-makers who do not just feel digital transformation as a technical one, but as a mighty transformation in the culture and management. By so doing, it disputes the reduced accounts of automation by showing that AI implementation is not so much about the displacement of human beings but a redesign of human-intelligent system interaction.

The following recommendations are based on the findings of the study. In the case of organizations, the most important thing is to implement incremental AI implementation

policies, offer ongoing digital literacy training, and create ethics committees within the organizations to monitor AI implementation. Flexible and collaborative work environments should also be encouraged to improve innovation. To policymakers, this must be done through funding AI infrastructure, creation of more training opportunities to SMEs, and robust data protection regulations. Such interventions must be put into the context of the cultural and institutional structure of Saudi Arabia to make them effective and sustainable.

The small sample size and the target population of a specific group of SME leaders are limitations of the study because they are not representative of the entire range of the experience in the Kingdom. The use of qualitative interviews which is effective in depth does not allow generalization. Long-term consequences of AI uptake, objective performance outcomes, and comparison of experiences across the Gulf Cooperation Council (GCC) countries should be investigated in the future to define the best practices within the region in the context of digital transformation.

To sum it up, establishing the successful levels of human-AI partnership within Saudi SMEs is not only a technological concern but an economic and cultural requirement. Inclusive and sustainable development is only possible through ensuring that the full potential of human intelligence as well as artificial intelligence is harnessed. It is possible to bridge this gap with the help of ethical, contextual, and innovation-based strategies to open up growth, creativity, and competitiveness of Saudi businesses as part of the Vision 2030 and beyond.

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APPENDIXES

Appendix 1. Interview Form

Interview Questions

1. Can you tell me about your role and decision-making responsibilities in your company?

Probes:

- How long have you been in this role?
- What types of decisions are you typically involved in?
- How is decision-making structured in your SME?

2. When did you first start using generative AI tools in your work, and what motivated you to do so?

Probes:

- Was it your choice or a company initiative?
- Were you influenced by trends or external advice?
- What problem were you trying to solve?

3. What types of generative AI tools are you currently using, and how do you use them in your decision-making?

Probes:

- Can you give examples (e.g., ChatGPT, Gemini, Copilot)?
- In what tasks or decision areas are they most useful?

4. Can you describe a specific situation where you used generative AI in a business decision?

Probes:

- What was the context of the decision?
- What kind of input did AI provide?
- How did it affect the final outcome?

5. How has generative AI changed the way you make decisions?

Probes:

- Has it made decision-making faster or easier?
- Has it changed your confidence or critical thinking?
- Are there cases where it led you to rethink your choices?

6. How do you balance your own judgment with AI-generated input?

Probes:

- When do you trust AI recommendations?
- Have you ever disagreed with or overridden AI suggestions?
- What role does your intuition or experience play?

7. What do you perceive as the main benefits of using generative AI in your role?

Probes:

- Creativity, efficiency, cost savings, new perspectives?
- How do these benefits affect your work or organization?

8. What challenges or concerns have you experienced while using generative AI?

Probes:

- Accuracy, cultural mismatch, overreliance, or ethics?
- Have you encountered any technical or usability issues?

9. How does your organization and team view the use of generative AI?

Probes:

- Is there support or resistance from others?
- Are there any internal policies or cultural factors at play?
- Do you think your approach differs from colleagues?

10. Looking ahead, what role do you think generative AI will play in the future of decision-making in your business?

Probes:

- Do you see it becoming more integrated?
- Are there concerns about jobs or ethics?
- What kind of skills do you think will be needed?

Appendix 2. Ethics Committee Approval

T.C.
İSTANBUL GELİŞİM ÜNİVERSİTESİ REKTÖRLÜĞÜ
Etik Kurul Başkanlığı

ETİK KURUL KARAR ÖRNEĞİ

Toplantı No	Toplantı Tarihi	Toplantı Saati	Toplantı Yeri
2025 – 13	01.07.2025	14.00	Rektör Yardımcısı Odası

KARAR NO: 2025-13-30: Lisansüstü Eğitim Enstitüsü, İşletme (İngilizce) Tezli Yüksek Lisans Programı 231432392 numaralı Abdulazız Ahmed Abdullah AHMED' in, Dr. Öğr. Üyesi Aslıhan ÜNAL' ın danışmanlığında yürütülen "The Impact of Generative AI on Decision-Making Processes in Saudi Arabian SMEs." konulu çalışması görüşüldü yapacağı anket sorularının, etik kurallara uygun olup olmadığını tespit etmek üzere, İGÜ Etik Kurulumuzun 23.05.2025 tarih ve 2025-10 sayılı toplantısında, İGÜ Etik Kurul Yönergesinin 12(1) maddesine göre değerlendirme yapmak üzere görevlendirilen öğretim elemanlarının raporları incelenmiş olup, ilgili çalışmada yer alan bilimsel araştırmanın etik kurallara uygun olduğuna oy birliği ile karar verildi.

ASLI GİBİDİR

RESUME

Personal Information

Surname, name : Ahmed, Abdulaziz Ahmed Abdullah

Nationality : Yemeni

Education

Degree	Education Unit	Graduation Date
Master	Istanbul Gelisim University	Ongoing
Bachelor	Istanbul Gelisim University	2023
High School	Al-Hejaz National Secondary School	2015

Work Experience

Year	Place	Title
N/A	N/A	N/A

Foreing Language

English – Excellent
Turkish – Intermediate

Publications

The Impact of Generative AI on Decision-Making Processes in Saudi Arabian SMEs" – Master Thesis (in progress)

Hobbies

Football, travelling