



Midocean University

College of Management

Master of Business Administration

**The Role of Management Information Systems in Enhancing
Administrative Decision-Making: An Applied Study on Small and
Medium-Sized Enterprises in Riyadh**

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Abstract

Background: Management Information Systems (MIS) have become integral tools for enhancing organizational decision-making, particularly in the context of small and medium-sized enterprises (SMEs). Despite growing adoption, the extent to which MIS supports administrative decision-making within SMEs in Riyadh remains underexplored. **Aim:** This study aimed to evaluate the role of MIS in enhancing administrative decision-making in SMEs in Riyadh, focusing on user perceptions, system effectiveness, and perceived impact. **Methodology:** A quantitative, cross-sectional design was employed, and data were collected from 323 administrative staff using a structured questionnaire. Descriptive statistics, t-tests, ANOVA, Pearson correlation, and multiple linear regression were used to analyze the data. **Results:** The findings revealed that participants held moderate to high perceptions of MIS, with mean scores reflecting generally favorable attitudes. Effectiveness and impact were also rated moderately high. Significant positive correlations were found among perception, effectiveness, and impact domains ($p < .001$). Regression analysis indicated that both perception ($\beta = .289$) and effectiveness ($\beta = .687$) significantly predicted MIS impact, accounting for 77.2% of the variance ($R^2 = .772$). Additionally, demographic variables such as age, education, and years of experience were significantly associated with MIS evaluation. **Conclusion:** In conclusion, MIS plays a critical role in supporting administrative decision-making in SMEs, with system effectiveness being the strongest predictor of perceived impact. The study highlights the need for ongoing MIS development, user training, and strategic alignment to maximize system benefits.

Keywords: *Management Information Systems (MIS), administrative decision-making, SMEs, effectiveness, perceptions, Riyadh, regression analysis.*

الملخص

الخلفية: تُعد نظم المعلومات الإدارية (MIS) أدوات أساسية في تعزيز جودة وكفاءة اتخاذ القرار داخل المؤسسات، وخاصة في المؤسسات الصغيرة والمتوسطة (SMEs) وعلى الرغم من تزايد الاعتماد على هذه الأنظمة، إلا أن مدى مساهمتها في دعم اتخاذ القرار الإداري في المؤسسات الصغيرة والمتوسطة بمدينة الرياض لا يزال غير واضح بشكل كافٍ. يهدف هذا البحث إلى تقييم دور نظم المعلومات الإدارية في تحسين اتخاذ القرار الإداري داخل المؤسسات الصغيرة والمتوسطة في مدينة الرياض، من خلال دراسة تصورات المستخدمين وفعالية الأنظمة وأثرها الإداري. تم اعتماد تصميم كمي مقطعي، حيث تم جمع البيانات من 323 موظفاً إدارياً باستخدام استبيان منظم. وتم تحليل البيانات باستخدام الإحصاء الوصفي، واختبارات (t) وتحليل التباين (ANOVA) ومعامل الارتباط لبيرسون، وتحليل الانحدار الخطي المتعدد. أظهرت النتائج أن المشاركين لديهم تصورات معتدلة إلى مرتفعة تجاه نظم المعلومات الإدارية، كما أظهرت الأنظمة فعالية وأثراً معتدلين إلى مرتفعين. وُجدت علاقات ارتباط إيجابية دالة إحصائياً بين التصورات والفعالية والأثر. ($p < 0.001$) وأوضح تحليل الانحدار أن كل من التصورات ($\beta = 0.289$) والفعالية ($\beta = 0.687$) يتنبآن بشكل معنوي بمستوى الأثر، موضحين ما نسبته 77.2% من التباين في الأثر. ($R^2 = 0.772$) كما ظهرت فروق ذات دلالة إحصائية مرتبطة بالعمر والمؤهل العلمي والخبرة. وتخلص الدراسة إلى أن نظم المعلومات الإدارية تمثل أداة فعالة في دعم اتخاذ القرار الإداري، مع التأكيد على أهمية تطوير الأنظمة وتدريب المستخدمين وربط MIS بالأهداف الاستراتيجية للمؤسسة.

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List of Abbreviations

Abbreviation	Full Term
MIS	Management Information Systems
SMEs	Small and Medium-Sized Enterprises
IT	Information Technology
DDDM	Data-Driven Decision-Making
TAM	Technology Acceptance Model
TOE	Technology-Organization-Environment Framework
SPSS	Statistical Package for the Social Sciences
ANOVA	Analysis of Variance
PLS	Partial Least Squares
R^2	Coefficient of Determination
β	Beta Coefficient (Standardized Regression Coefficient)
N	Sample Size
M	Mean
SD	Standard Deviation
p	Probability Value (Statistical Significance Level)
t	t-Test Statistic
VIF	Variance Inflation Factor
ICT	Information and Communication Technology

Chapter 1: Introduction

1.1 Background

The contributions of small and medium-sized enterprises (SMEs) to economic growth and development across the world and, in particular, in Saudi Arabia, cannot be overemphasized. They are instrumental in fostering innovation, generating employment, and diversifying the economy (Alqahtani et al., 2024). Nevertheless, the SMEs are prone to some operational issues unique to their nature, such as resource constraints, information asymmetry, inadequate infrastructure, and weak management capabilities, which, in the aggregate, undermine their administrative decision-making effectiveness and competitiveness (Kumar et al., 2023; Muhail & Abdullah, 2024).

The competitive nature of the global market in the present day puts a premium on strong information technologies and systems in order to propel decision-making in organizations (Bozkus, 2024). Management Information Systems (MIS) are, therefore, key instruments for timely and accurate information provision to assist managers with informed and strategic administrative decision-making (Sutton et al., 2024; Al-Mamary et al., 2014). MIS configure technology, people, and organizational processes to achieve collection, processing, storage, and dissemination of critical business information (Sternad Zabukovše et al., 2023). Hence, with possible support extended, an MIS capability evaluation becomes an important concept therein within SMEs, particularly in a dynamic and developing business arena such as Riyadh.

Saudi Arabia's Vision 2030 entails a huge implementation of strategies to improve the technological infrastructure and digitization of not only the kingdom but SMEs in particular (Alayed et al., 2025; Yusuf & Lytras, 2023). Riyadh as a full-fledged economic and technological hub forms a captivating place to study the role and

impact of MIS in SMEs. Hence, it is timely and relevant to study the adoption of MIS in SMEs in Riyadh and how the systems could assist in administrative decision-making.

1.2 Statement of the Problem

SMEs in Riyadh face extensively impediments while administrative decision-making due to reasons such as limited ability to access timely and accurate information, insufficient integration of technology, and inadequate understanding of the potential benefits of taking on advanced information systems (Zafar et al., 2015; AlBar & Hoque, 2019). Even though the majorly important role of management information systems is emphasized for improving organizational participation in decision making, a considerable number of SMEs continue to rely on traditional and inefficient decision-making processes that considerably slow down their processes and allow opportunities for low-quality decisions to be taken, which work against competitive advantage (Muhail & Abdullah, 2024; Hamdat et al., 2024; Alsuhaimi, 2025; Bani Hushayyish et al., 2023).

While past studies have stressed MISs' broad benefits in large enterprises (Khudhur, 2017; Allahawiah et al., 2020; Egbuniwe, 2019; Ali & Gürkan, 2022; Musa et al., 2020), very little empirical work has been done to address MIS's true effectiveness and actual impacts within the SMEs' environment of Saudi Arabia, more so in Riyadh. Hence, there is a dire need to empirically investigate, in a focused manner, the actual roles, effectiveness, and impacts of MIS on administrative decision-making in SMEs based in Riyadh, along with how demographic factors of the administrative staff may influence the way MIS is used and perceived.

1.3 Important of the study

The importance of this research is inescapable, especially in the face of the ambitious economic reforms that Saudi Arabia is making under Vision 2030. By

conducting an empirical analysis of the role of Management Information Systems (MIS) in enhancing administrative decision-making within small and medium-sized enterprises (SMEs) in Riyadh, the study captures critical insights and evidence meant to support decision-makers and stakeholders in SMEs. Specifically, it demonstrates the practical importance of adopting MIS, helping SMEs in understanding how their poor decision-making quality timeliness and efficiency could be improved hence the improved competitiveness and productivity of the concerned organization within the changing Saudi economic environment.

Additionally, the outcomes of this study will give an indication to policy makers and enterprise leaders on the demographic and user-related factors that have an influence on the adoption and effectiveness of the MIS. By correlating demographic traits with perceptions and usage of MIS from a perspective of administrative staff, followed a few specific study questions, the study offers action-oriented lessons to help train and build capacity for the targeted population. It also deepens theoretical understanding of effectiveness of MIS in SMEs and contributes new empirical evidence to existing academic literature on MIS effectiveness in small and medium enterprises (SMEs). Practical guidelines for policymakers, SME owners, managers, and researchers interested in improving efficiency and performance in enterprises through proper technology integration and adoption are also provided.

1.4 Research Objectives

1.4.1 General Objective

The general objective of this study is to evaluate the role and effectiveness of management information systems in enhancing administrative decision-making processes within small and medium-sized enterprises in Riyadh.

1.4.2 Specific Objectives

1. To evaluate the effectiveness of management information systems (MIS) in providing accurate, timely, and relevant information to support administrative decision-making in small and medium-sized enterprises (SMEs) in Riyadh.
2. To examine the impact of management information systems on the quality, speed, and overall efficiency of administrative decision-making processes within SMEs in Riyadh.
3. To identify the demographic characteristics of administrative staff in SMEs in Riyadh and analyze the relationship between these characteristics and their use and perceptions of management information systems in the decision-making process.

1.5 Research Questions

This research seeks to address the following research questions:

1. To what extent are Management Information Systems (MIS) effective in providing accurate, timely, and relevant information to support administrative decision-making within small and medium-sized enterprises (SMEs) in Riyadh?
2. What impact do Management Information Systems (MIS) have on the quality, speed, and overall efficiency of administrative decision-making processes in SMEs in Riyadh?
3. What are the demographic characteristics of administrative staff in SMEs in Riyadh, and how are these characteristics related to their use and perceptions of Management Information Systems (MIS) in administrative decision-making?

1.6 Research Hypotheses

The following hypotheses was tested in this study:

Hypothesis 1 (H1): There is a statistically significant positive relationship between the use of Management Information Systems (MIS) and the provision of accurate, timely, and relevant information to support administrative decision-making in SMEs in Riyadh.

Hypothesis 2 (H2): There is a statistically significant positive impact of Management Information Systems (MIS) on the quality, speed, and overall efficiency of administrative decision-making processes in SMEs in Riyadh.

Hypothesis 3 (H3): There is a statistically significant relationship between demographic characteristics (age, gender, educational level, experience, and position) of administrative staff and their perceptions and use of Management Information Systems (MIS) in SMEs in Riyadh.

1.7 Definitions of Key Terms

Management Information System (MIS): Computer-based systems specifically designed to give managers and administrative staff access to vital, precise, timely, and relevant information for facilitating decision-making, coordination, control, analysis, and visualization of information within organizational contexts (Laudon & Laudon, 2020).

Administrative Decision-Making: It is the process through which a manager and administrator identify most suitable alternatives and solutions to issues and problems within the organization and business circumstances based on the information available, resources at his disposal, and strategies to achieve those organizational objectives in the most effective manner (Robbins & Coulter, 2016). The measurement of how effective administrative decisions are taken regarding their accuracy, quality, speed, resource utilization, and timely achievement of intended outcomes and organizational goals (Robbins & Coulter, 2016).

1.8 Theoretical Model

This theoretical framework converges from certain elements of DeLone and McLean's Information Systems Success Model (DeLone & McLean, 2003) and the Technology Acceptance Model (TAM) (Davis, 1989). Accordingly, the integration of these models is aligned and specifically directed towards such ends as the present study's objectives, hypotheses, and variables.

Thus, DeLone and McLean's IS Success Model (2003) gives a comprehensive framework for measuring the effectiveness and impact of an Management Information System (MIS). This model identifies very important dimensions such as information quality, system quality, user satisfaction, and net benefits as necessary determinants for information systems success. The Technology Acceptance Model (TAM) presumes the idea of how users perceive the information technology acceptance and utilization, their attitudes and behaviors accordingly. This model helps in clarifying the demographic factors and their influence over the perception toward using MIS.

1.9 Summary

This chapter, as a whole, justifies specifying the research questions that were aimed at understanding management information systems effectiveness; determining their relevance to administrative decision-making; and understanding their demographics among the SME administrative staff in Riyadh. Also, these were on formulating specific hypotheses to be statistically tested. Key terms were explicitly defined to ensure conceptual clarity while the theoretical model integrating the Technology Acceptance Model (TAM) and Information Systems Success Model was presented to guide this study. The whole framework gives some clarity and direction to the subsequent phases of the research.

Chapter 2: Literature Review

2.1 Introduction

This chapter has provided a comprehensive review of the literature concerning the relationship between management information systems (MIS) and decision-making quality in organizations. Upon evaluation, an understanding of how MIS contributes to the decision-making processes of organizations is of utmost importance in determining just how effective an MIS is and what can be considered as contributory factors to or restraints against this role within the context of administration.

2.2 Dependent Variables: Decision-Making Quality

Decision-making quality is defined as the degree to which organizational decisions are made timely, accurately, relevantly, and effectively in setting and achieving objectives. High-quality decision-making includes an apt decision, foresight about an outcome, risk management with contingency planning, and strategic alignment (Ali & Gürkan, 2022; Khudhur, 2017). Again, in organizational research, decision-making quality is frequently evaluated through a set of criteria, namely: accuracy, reliability, timeliness, comprehensiveness, and appropriateness of the decision outcomes (Alsulaiman et al., 2024; Muhail & Abdullah, 2024).

Some newer empirical studies make a strong case for the positive effect of MIS on decision-making quality in a quite varied context: SMEs. To take few examples, Alsuhaimi (2025) proved that data-driven decisions significantly improve on accuracy and effectiveness for management in the realm of public administration in Saudi Arabia when supported by sound MIS infrastructure. Along the same lines, Hamdat et al. (2024) showed that organizations that have strategically aligned MIS exhibit higher agility and thus can develop faster and well-informed decisions, thereby elevating their overall performance.

Universities in Jordan were used as a case study for Allahawiah et al. (2020), who found a strong correlation between using MIS and administrative decisions. MIS provides timely, accurate, and relevant data for quality decision-making. Similar findings were documented for the health sector where Bani Hushayyish et al. (2023) pointed out a significant correlation between healthcare information systems and the enhancement of decision-making efficiency among hospital administrators.

The concept of SMEs has portrayed some extensive challenges and enablers to the quality of decision-making in the literature. Efficient implementation of MIS increases not only the precise and trustworthy information but also the strategic alignment and knowledge sharing that are paramount in decision quality particularly in resource-constrained environments (Alsulaiman et al., 2024; Ali & Gürkan, 2022). On the other hand, the factors such as inadequacy of user training, limited technological infrastructure, and resistance to change act as barriers to the positive impact of MIS on the improvement of decision quality (Musa et al., 2020; Khudhur, 2017).

These key factors are presented in the literature where they capture upon the relationship between MIS and decision-making quality: system quality; information quality; user proficiency; and organizational support (Shniekat et al., 2022; Alsulaiman et al., 2024). High-quality MIS would be defined by accurate data, user-friendly interfaces, timely reporting, as well as strong security features to ensure effective and reliable decision making. Besides, continuous training and management support are essential to ensure that end-users can utilize the full capacity of MIS (Musa et al., 2020; Muhail & Abdullah, 2024).

Basically, most of the literature conveys the idea of MIS having indeed big positive results in decision making quality along different fields and sizes of

organizations. However, there seems to be lacuna of specific evidence in application and results regarding the use of MIS in SMEs such as Riyadh. Hence, use applied research to evaluate unique challenges, opportunities, and context in which SMEs in Riyadh use MIS to enhance decision-making quality.

2.3 Independent Variable: Management Information Systems (MIS)

An integrated system is called a Management Information System (MIS), whereby it collects, processes, stores, and disseminates information for managerial purposes in any organization (Laudon & Laudon, 2020; Musa et al., 2020). People, technologies, and organizational processes combine to accommodate planning, control, coordination, and decision-making (Hamdat et al., 2024). MIS contains hardware, software, data, procedures, and human resources as its main components (Shniekat et al., 2022). Each of these plays an important role in ensuring the effectiveness of the system, with modern MIS often posing reliance on digital databases and real-time analytics, and complemented with user-friendly interfaces (Bani Hushayyish et al., 2023).

In an organization, it is the backbone of all the administration processes by ensuring the smooth processing of data, promoting communication, and timely reports (Khudhur, 2017; Allahawiah et al., 2020). MIS in small and medium enterprises is mostly considered a great facilitator of change for development as most SMEs usually have limited resources thus need faster decisions (Alsuhaimi, 2025). With efficient MIS in place, operations are more streamlined, performance better monitored, and proactive response to environmental changes encouraged (Alsulaiman et al., 2024).

Research shows that MIS adoption in micro, small, and medium enterprises (MSMEs) has a specific challenge such as limited expertise in IT, low budgets, and

resistance to change (Musa et al., 2020; Khudhur, 2017). Nevertheless, they affirmed through preliminary findings that when MSMEs install MIS, they will achieve better efficiencies, visibility, and adaptability (Ali & Gürkan, 2022; Alsuhaime, 2025). In the Saudi context, Alsuhaime (2025) emphasized that the country has to develop a robust infrastructure of management information systems to make possible data-driven management and linkage with national development initiatives. Also, training and continuous development are crucial in maximizing MIS capability in SMEs. The presence of user-friendly systems and ongoing support greatly boosts user adoption and benefits from MIS realization (Shniekat et al., 2022).

Multiple studies have affirmed that MIS serves a significant function in enabling effective management and support of strategic objectives. According to Shniekat et al. (2022), there is a positive correlation between MIS dimensions and institutional performance in Jordanian universities. In health and education institutions, it has been found that the deployment of MIS directly improves decision quality, resource utilization, and information accessibility (Bani Hushayyish et al., 2023; Allahawiah et al., 2020). In academic libraries in Nigeria, Musa et al. (2020) wrote that MIS was critical for effective record-keeping and administrative decision-making, notwithstanding the observed challenges concerning ICT skills and infrastructure.

For small and medium-sized enterprises, it has been shown that adopting MIS is related favorably to the quality of decisions, operationally competitive advantages, and resource management (Alsuhaime, 2025; Ali & Gürkan, 2022). Benefit realization from the use of an MIS system depends on controlling factors like quality with respect to the system, management involvement, and matching of MIS to organizational requirements (Hamdat et al., 2024; Alsulaiman et al., 2024).

To sum up, management information systems are proven in literature to be foundational independent variables measuring a number of organizational outcomes, especially in decision-making quality. MISs are effective in SMEs as far as the quality of technology is high, the information is relevant and timely, users are skilled, and organizational support exists. The next sections will examine the frameworks linking these variables within SMEs in Riyadh.

2.4 Summary of Previous Studies

1. Khudhur (2017).

A quantitative study held at Hawler Polytechnic University in Iraq in 2017 by Khudhur sought to inspect the influence of management information systems (MIS) on the quality of administrative decision-making. The research combined descriptive and analytical methodologies, with data obtained through questionnaires from administrative staff and analyzed using statistical techniques, including correlation and regression analysis. The key findings pointed out a strong positive correlation between the use of MIS, such as operational, functional, and decision support systems, and improvement in decision quality at all management levels. It also pointed out that MIS makes significant contributions to better decision quality, especially at lower and middle management levels, by timely, accurate, and relevant information. Major suggestions included periodical updating of MIS infrastructure, more training of staff, and increased employee participation in developing the system to fully reap the advantages of MIS in administrative processes (Khudhur, 2017).

2. Hamdat et al. (2024)

Hamdat et al. (2024) examined the effect of management information systems on the efficiency of decision-making by using a mixed-methodological approach,

mainly among organizations in Indonesia. The quantitative part drew on surveys from senior managers and IT professionals within a variety of domains, which were supplemented by a qualitative critical review of some theoretical frameworks such as Technology Acceptance Model (TAM) and Resource-Based View (RBV). Both empirical and literature-based data analysis revealed that MIS plays a significant role in improving the efficiency of decision-making by obtaining its immediacy through the provision of real-time information and advanced analytics. In fact, it has been shown that firms with strategically integrated MIS have more accurate, faster, and more flexible decisions. The effectiveness of MIS was dependent, however, on the corporate culture, user expertise, and technology updates in regular intervals. The necessity of aligning MIS with the organizational goals was emphasized by the authors, mentioning the importance of investment in user training and data governance for the improvement of the decision-making situation (Hamdat et al., 2024).

3. Bani Hushayyish et al. (2023).

Bani Hushayyish et al. (2023) assessed the impact of healthcare information systems (HIS)—a subset of MIS—on management administration and operational management within Alhada Military Hospital in the Kingdom of Saudi Arabia. The study utilized a descriptive and analytical methodology whereby 94 healthcare staff were surveyed, with data analyzed using SPSS. The findings indicated that HIS had a positive and significant effect on both administrative and operational decision-making with regard to information retrieval and staff efficiency. Respondents showed high skills in HIS use, while the study highlighted areas for improvement, such as the provision of stronger statistical data. The results stressed the vital importance of HIS in timely and accurate decision-making and placed emphasis upon continuous system

development and staff training to further enhance decision-making within the healthcare setting (Bani Hushayyish et al., 2023).

4. Alsuhaimi (2025).

Alsuhaimi (2025) investigated the application of data-driven decision-making (DDDM) in the public sector of Saudi Arabia through a quantitative cross-sectional survey among 382 employees from different governmental bodies. The study used the Technology-Organization-Environment (TOE) framework along with structural equation modeling (SEM) and regression analysis to evaluate the factors impacting adoption and consequences of DDDM. The results revealed that DDDM is positively associated with improved decision quality, operational efficiencies, and organizational actionability concerning Saudi Arabia's Vision 2030 strategic goals. Key enablers for DDDM adoption included good IT infrastructure, high data quality, advanced analytics capabilities, top management support, data culture, skills of employees, and government policy; yet, it also pointed out other key challenges such as data quality issues, lack of skills, and resistance to change. The study advocated investment in solid data systems, extensive capacity building, and alignment of policy frameworks to reap the maximum benefits from DDDM within the public sector (Alsuhaimi, 2025).

5. Egbuniwe (2019)

Egbuniwe (2019) examines the relationship between management information systems (MIS) and quality of management decisions in a leading Libyan telecommunications company, Almadar. The descriptive and quantitative survey research covered a sample of 700 employees and applied SPSS for calculating correlation and regression analyses. It was discovered that MIS use--comprising operational, administrative, and decision support systems--promoted better decision-

making quality across all levels of management. An MIS enabled managerial decisions to be more accurate, comprehensive, and timely and, hence, had a positive impact on overall performance of the organization. There was recommendation for continuous improvements on MIS infrastructure and processes as well as quarrying information gaps to promote high quality decision-making within organizations (Egbuniwe, 2019).

6. Ali and Gürkan (2022)

Ali and Gürkan (2022) addressed the influence of information systems on the economics of decision-making in financial management at Libya's Ministry of Education. The research consisted of a sample from a pool of 200 managers, department heads, accountants, and auditors and employed partial least squares regression (PLS) to analyze the data. The results suggested that the quality of information systems has a huge impact on both the quality of information and that regarding the quality of financial decision-making itself. Correct, reliable and instantaneous data were shown to improve efficiency and accuracy of the financial decision. To the important include, the research noted that the relationship which exists between system quality and decision quality is mediated through information quality and further to endorse their continual enhancement of information systems features to further their effective financial decision-making (Ali & Gürkan, 2022).

7. Allahawiah et al. (2020)

For the study done by Allahawiah et al. (2020) carried out a study on the influence of management information systems (MIS) on decision making in the Jordanian private universities through descriptive cross-sectional survey from 315 university employees, of which 290 are valid responses. Descriptive statistics showed that the accuracy of information accessed through MIS strongly related to its usage by

university officials in making decisions with reported relative weight of 80%. This very study was set to highlight the importance of MIS for managerial decisions to be made out of adequate, relevant, and timely information. Moreover, it further recommends continuous development and updating of MIS; as well as improvement in provision of statistical information to enhance decision-making quality in academic institutions (Allahawiah et al., 2020).

8. Musa et al. (2020)

The authors Musa et al. (2020) examined the management information systems in the academic professions of librarians in Nigeria, specifically at the Federal University of Technology Minna Library. The survey, which was descriptive in nature, focused on 30 academic librarians-with an 86% rate of response- and found that the MIS facilities were there and operational in making record keeping and decision making smooth. Though this dynamic effect, there are grave challenges such as lack of ICT skills among staff members, poor power supply, apathetic management involvement in MIS design, low data centralization, and inadequate number of ICT professionals. It suggested that, to improve efficiency in records management and decision-making, higher priorities should be given to MIS as well as building into it the linkages needed to overcome the existing challenges that hinder the accuracy and effect of MIS in their academic libraries (Musa et al., 2020).

9. Shniekat et al. (2022)

Studies on this topic by Shniekat et al. in 2022. Institution performance by management information system dimensions in Jordan was studied by Shniekat et al. (2022) from the perspectives of faculty members of Al-Balqa Applied University in Jordan. A structured questionnaire was the instrument of data collection on a sample of

140 faculty members and it adopted a cross-sectional, quantitative research paradigm. The data were analyzed through ANOVA and regression techniques. Findings revealed that implementation of the MIS had an average positive relationship with the institutional performance, such as hardware/software, security, and training which were all significant contributors to this effect. Curiously, the analysis indicated that user qualifications did not have any important effect on the performance associated with MIS. Recommendations towards upgrading the MIS and training staff in new MIs were discussed to maximize institutional performance and benefits derived from their use (Shniekat et al., 2022).

10. Muhail and Abdullah (2024)

Muhail and Abdullah (2024). Analytical research conducted by Muhail and Abdullah (2024) on the impact of management information systems on decision-making for security among officers in Al-Muthana Governorate-Iraq. The researchers used the descriptive-analytic approach and a structured questionnaire to involve 191 security services officers. The result of the analysis based on descriptive statistics and AmosV23 statistical software revealed that MIS development and continuous improvement had a significant and positive relationship with the improvement in the quality of making security-related decisions. The key dimensions of MIS, namely attention from senior management, human, material, and software resources, and training, were found to have a positive correlation with the quality of security decisions. It concluded with a recommendation that there should be a continued on-going development of MIS and intensified training activities in these areas as part of measures to fine-tune security decision-making processes further (Muhail & Abdullah, 2024).

2.5 Gaps in the Literature

Despite a wealth of empirical evidence attesting to the positive effects of Management Information Systems (MISs) on decision making in various sectors and regions including Iraq (Khudhur, 2017; Muhail & Abdullah, 2024), Indonesia (Hamdat et al., 2024), Saudi Arabia (Alsuhaime, 2025; Bani Hushayyish et al., 2023; Alsulaiman et al., 2024), Jordan (Allahawiah et al., 2020; Shniekat et al., 2022), Libya (Egbuniwe, 2019; Ali & Gürkan, 2022), and Nigeria (Musa et al., 2020), significant areas have been left unaddressed. First, most of the empirical studies have tended to focus on public sector organizations, educational institutions, and the healthcare sector, with limited literature addressing the particular feature of small and medium-sized enterprises, especially in the Gulf region and Saudi Arabia. In fact, most of the studies are large organizations or government entities, neglecting to address specific challenges and enablers of MIS adoption in SMEs, such as resource constraints, limited IT expertise, and the changing nature of the business environment (Alsuhaime, 2025; Musa et al., 2020).

In addition, while the research by Hamdat et al. (2024) and Shniekat et al. (2022) analyzed the parameters of the MIS and their impact on institutional performance or efficiency in decision-making, there is little evidence of the applicability of such findings in administrative decision-making processes of SMEs, especially within the Saudi context. According to Egbuniwe (2019) and Khudhur (2017), several issues such as user training, top management support, and data quality have featured prominently as influencing factors of MIS outcomes. However, their interrelationship in SMEs has not been adequately explored. Besides, the fast-changing landscape of digital transformation, ushered in by Saudi Vision 2030, requires fresh context-specific

inquiries into how MIS can best be utilized by SMEs to improve administrative decision-making and overall organizational performance (Alsuhaimi, 2025).

Thus, it is beyond argument that applied research needs to be performed on the role and efficacy of MIS in administrative decision-making in SMES in Saudi Arabia, with special consideration being given to the area of Riyadh. This contribution will not only add value to the academic literature on this subject but also provide insights with practical benefits to policymakers and SME leaders who aim to utilize MIS for competitiveness and decision-quality improvements.

2.6 Summary of the Chapter

This chapter has given an exhaustive review of the literature on the relationship between Management Information Systems and decision-making quality in organizations. Consistently, the studies mentioned indicated the importance of MIS in improving the accuracy, efficiency, and strategic value of decision-making in organizations. On the other hand, the literature is also characterized by conspicuous gaps - for instance, one of the glaring gaps is that little concentrated research has been done on the application and results of MIS within small and medium enterprises in Saudi Arabia. It is thus valuable in showing the clear justification for the present study that seeks to assess the role of MIS in augmenting administrative decision-making in SMEs in Riyadh.

Chapter 3: Methodology

3.1 Introduction

This chapter delineates the detailed methodological procedures employed in evaluating the role of Management Information Systems (MIS) in enhancing administrative decision-making within small and medium-sized enterprises (SMEs) in Riyadh. Specifically, this chapter addresses the research design, study setting, target population, sampling strategy, data collection instrument and procedure, pilot testing, data analysis approach, and ethical considerations to ensure reliability and validity of the research findings.

3.2 Research Design

A quantitative, descriptive, cross-sectional research design was employed for this study. This design facilitates the efficient collection of data at one point in time, allowing for the description of existing relationships, opinions, behaviors, and perceptions among administrative personnel regarding the effectiveness and impact of MIS within SMEs in Riyadh (Creswell & Creswell, 2017).

3.3 Study Setting

The study was conducted within various small and medium-sized enterprises situated in Riyadh, the capital city of Saudi Arabia. Riyadh was specifically selected due to its prominent role as the economic and administrative hub, housing a large concentration of SMEs that actively utilize various technological and managerial systems, making it an ideal setting for this research.

3.4 Target Population and Sampling

3.4.1 Target Population

The target population comprises administrative staff, supervisors, and managers employed in small and medium-sized enterprises (SMEs) operating in diverse business sectors within Riyadh.

3.4.2 Inclusion and Exclusion Criteria

Inclusion Criteria:

- Administrative employees currently working in SMEs in Riyadh.
- Employees with at least 1 year of experience in their current position.
- Employees willing to voluntarily participate.

Exclusion Criteria:

- Employees with less than 1 year of employment experience.
- Employees not actively involved in administrative decision-making processes.
- Employees unwilling or unable to provide informed consent.

3.4.3 Sampling Technique

The convenience sampling technique, a type of non-probability sampling, was utilized. Convenience sampling was selected due to ease of accessibility and practicality in reaching administrative personnel across SMEs located in Riyadh (Etikan, Musa, & Alkassim, 2016).

3.4.4 Sample Size Calculation

The sample size was calculated using Raosoft's sample size calculator. Considering an estimated target population of approximately 2000 administrative staff across SMEs in Riyadh, a 95% confidence level, a margin of error at $\pm 5\%$, and

assuming a 50% response distribution (to maximize variability and representativeness), the recommended sample size is approximately 323 participants.

3.5 Data Collection Instrument

The data for this study was collected using a structured self-administered questionnaire specifically developed based on existing literature (Khudhur, 2017; Muhail & Abdullah, 2024; Hamdat et al., 2024; Alsuhaimi, 2025; Bani Hushayyish et al., 2023; Alsulaiman et al., 2024; Shniekat et al., 2022). The questionnaire comprises four sections (Sections A–D) and includes a total of 20 items. It is designed to obtain demographic data, assess the effectiveness of MIS in supporting decision-making, evaluate the perceived impact of MIS on decision-making processes, and understand user perceptions regarding MIS implementation. (*See Appendix 1*).

Section A (Demographic Information) consists of 5 items aimed at collecting demographic data from participants, including gender, age group, educational level, years of experience in administrative roles, and organizational position. This section will assist in characterizing the respondents, and will further enable examination of any associations between demographic characteristics and MIS usage or perception.

Section B (User Perceptions Regarding MIS) contains 5 items designed to capture participants' attitudes, experiences, confidence, and overall satisfaction with MIS in their organizational roles. Similar to previous sections, responses are measured on a 5-point Likert scale, resulting in scores ranging from 5 to 25 points. Scores are interpreted as follows: 5–11 denote negative or unfavorable perceptions, 12–18 neutral to moderately positive perceptions, and 19–25 highly positive perceptions. These insights will clarify participant comfort, satisfaction, and willingness to continue using MIS, providing valuable information for future organizational MIS improvements.

Section C (Effectiveness of MIS) includes 5 items designed to measure the effectiveness of Management Information Systems (MIS) in providing accurate, timely, and relevant information for administrative decision-making within SMEs. Items are formulated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), yielding scores between 5 and 25 points. Scores from this section are interpreted as follows: 5–11 indicate low effectiveness, 12–18 moderate effectiveness, and 19–25 high effectiveness, reflecting the degree to which MIS is perceived to meet organizational informational needs effectively.

Section D (Impact of MIS on Decision-Making) comprises 5 items assessing the perceived impact of MIS implementation on administrative decision-making processes concerning decision quality, speed, and overall efficiency. Responses to these items utilize the same 5-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree), with total scores ranging from 5 to 25 points. Interpretation of scores follows the pattern of 5–11 (low impact), 12–18 (moderate impact), and 19–25 (high impact), enabling the identification of the perceived significance of MIS in enhancing organizational decision-making capacities within SMEs.

3.6 Pilot Testing

Before the main data collection, a pilot study involving 30 administrative staff participants (10 % of the intended sample size) was conducted to test questionnaire clarity, wording, length, and feasibility. Reliability testing using Cronbach's alpha was conducted, with values ≥ 0.70 indicating acceptable internal consistency (Pallant, 2020). The results from this pilot test will guide minor modifications to improve questionnaire clarity and validity.

Table 1 Reliability test

Variables	Cronbach's Alpha	N of Items
<i>User Perceptions Regarding MIS</i>	.822	5
<i>Effectiveness of MIS</i>	.790	5
<i>Impact of MIS on Decision-Making</i>	.810	5

3.7 Data Collection Procedure

The finalized questionnaire was administered electronically using Google Forms, an efficient, secure, and user-friendly survey tool. Links to the Google Form questionnaire was distributed to SMEs via official emails, LinkedIn, WhatsApp, and other relevant social media platforms. Data collection was conducted over four weeks, with weekly reminders sent to improve response rates. The participants was provided clear instructions and assurance of confidentiality and anonymity throughout the data collection phase.

3.8 Data Analysis

Collected data was analyzed using the Statistical Package for Social Sciences (SPSS version 28). Statistical analyses will include:

- Descriptive statistics (frequency distributions, percentages, mean, standard deviation) to summarize demographic characteristics and questionnaire responses.
- Reliability analysis (Cronbach's Alpha) to test internal consistency.
- Inferential statistics will include the following: Pearson's correlation to investigate relationships among demographic variables and MIS-related factors. Independent samples t-tests and one-way ANOVA to assess differences across

demographic groups. Multiple linear regression to identify predictive relationships between demographic characteristics and MIS perceptions. The significance level (α) was set at 0.05 for all statistical tests.

3.9 Ethical Considerations

Ethical considerations will include: Clearly informing participants of the study purpose and procedures. Voluntary participation with the right to withdraw at any stage without repercussions. Ensuring confidentiality and anonymity by assigning identification numbers instead of participant names. Secure data storage in password-protected electronic devices accessible only by authorized personnel.

3.10 Chapter Summary

This chapter described the quantitative methodological approach employed in the study. It included a detailed account of the research design, setting, population, sampling strategy, and data collection instrument. Additionally, the procedure for conducting a pilot test, data collection, and statistical analysis was outlined clearly. Finally, ethical considerations were highlighted to ensure the ethical integrity of the research process.

Chapter 4: Results

4.1 Introduction

This chapter presents the results of the data analysis conducted to evaluate the role of Management Information Systems (MIS) in enhancing administrative decision-making within small and medium-sized enterprises (SMEs) in Riyadh. The findings are organized in alignment with the research objectives and hypotheses, and are based on descriptive and inferential statistical analyses performed using SPSS software. The chapter includes summaries of demographic characteristics, descriptive statistics for key study variables (perceptions, effectiveness, and impact of MIS), categorical level distributions, and the results of inferential tests such as t-tests, ANOVA, Pearson correlation, and multiple linear regression.

4.2 Demographic Characteristics of the Respondents

Table 1 presents the demographic characteristics of the respondents (N = 323) working in small and medium-sized enterprises (SMEs) in Riyadh. The majority of participants were male (71.2%), while females comprised 28.8% of the sample. Regarding age, the largest group of respondents fell within the 41–50 years category (33.1%), followed by those aged 31–40 years (29.7%). This distribution indicates that most participants were mid-career professionals with potentially significant experience in administrative roles.

In terms of educational attainment, a substantial portion of the sample held postgraduate qualifications, with 40.9% having a master's degree and 21.4% a doctorate, suggesting a well-educated workforce. Additionally, more than half of the participants (50.2%) reported having 6–10 years of experience in administrative roles, while 34.7% had 1–5 years of experience, and 15.2% had more than 10 years, reflecting a sample with varied but mostly moderate administrative tenure.

Position-wise, nearly half of the respondents (49.5%) identified as administrative staff, while 30.0% and 20.4% were in middle and top management positions, respectively. This composition suggests a balanced representation of organizational hierarchy, suitable for assessing the role of MIS across different levels of decision-making authority.

Table 2 Demographic Characteristics of the Respondents (N = 323)

		n	%
Gender	Male	230	71.2%
	Female	93	28.8%
Age	20–30 years	56	17.3%
	31–40 years	96	29.7%
	41–50 years	107	33.1%
	Over 50 years	64	19.8%
Education Level	Diploma	36	11.1%
	Bachelor's degree	86	26.6%
	Master's degree	132	40.9%
	Doctorate	69	21.4%
Years of experience in administrative role	1–5 years	112	34.7%
	6–10 years	162	50.2%
	Over 10 years	49	15.2%
Position in the organization	Top management	66	20.4%
	Middle management	97	30.0%
	Administrative staff	160	49.5%

4.3 Perceptions Toward MIS Use (N = 323)

Table 2 summarizes participants' perceptions of Management Information Systems (MIS) use within their organizations. The overall mean score for perceptions was **M = 16.58**, **SD = 6.11**, indicating a moderate level of positive perception toward MIS. Among the individual items, the highest mean score was for item 2 ("I feel

confident using MIS in performing my administrative duties") with **M = 3.36**, **SD = 1.29**, reflecting relatively strong user confidence.

Item 5 ("I would recommend broader implementation and usage of MIS across my organization") also received a favorable mean of **3.33**, suggesting openness toward MIS expansion. Conversely, item 4 ("MIS positively contributes to my job satisfaction and productivity") yielded the lowest mean (**M = 3.26**, **SD = 1.33**), indicating slightly lower but still moderate perceived value of MIS in enhancing job satisfaction.

Overall, the results suggest that while users generally hold positive perceptions of MIS, there is room for improvement, particularly in areas related to user satisfaction and productivity enhancement. The variability in standard deviations (ranging from 1.21 to 1.33) also points to diverse user experiences and perspectives across the sample.

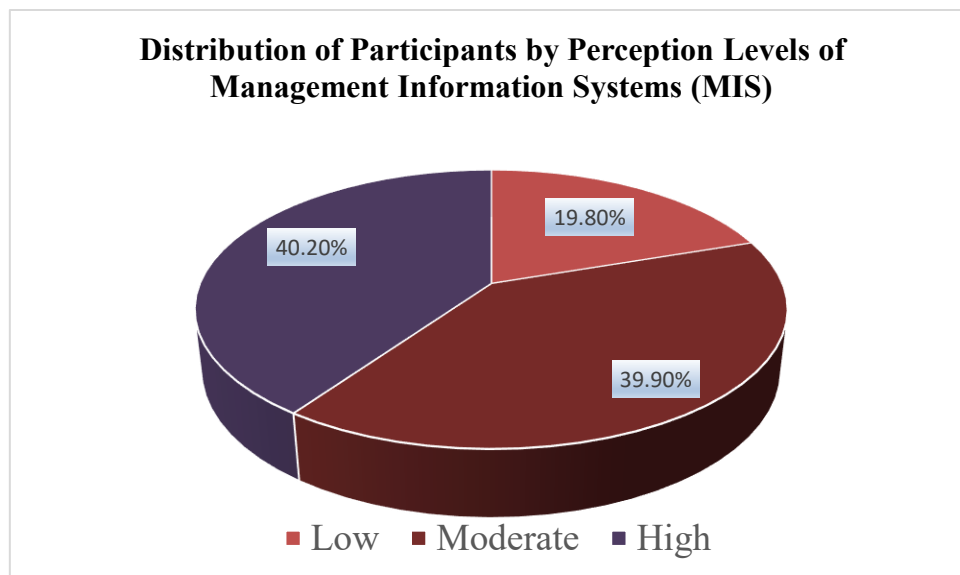
In the Perceptions category, a substantial proportion of participants were classified as having high perceptions of MIS (40.2%), followed closely by those with moderate perceptions (39.9%). Only 19.8% of respondents were classified as having low perceptions. This distribution indicates that most participants hold generally positive attitudes toward MIS, although nearly one-fifth exhibit a less favorable view (See figure 1).

Table 3 Descriptive Statistics of Perceptions Toward MIS Use(N = 323)

Items	Mean	SD
1. MIS is user-friendly and easy to navigate.	3.29	1.28
2. I feel confident using MIS in performing my administrative duties.	3.36	1.29

3. The organization provides sufficient training to effectively use MIS.	3.34	1.29
4. MIS positively contributes to my job satisfaction and productivity.	3.26	1.33
5. I would recommend broader implementation and usage of MIS across my organization.	3.33	1.21
Total	16.58	6.11

Figure 1 *Distribution of Participants by Perception Levels of Management Information Systems (MIS)*



4.4 Respondents' perceptions of the effectiveness of MIS in supporting administrative decision-making

Table 3 presents the descriptive statistics for respondents' perceptions of the effectiveness of Management Information Systems (MIS) in supporting administrative decision-making. The overall mean score was $M = 14.93$, $SD = 5.61$, indicating a moderate level of perceived effectiveness among participants.

Among individual items, the highest-rated was item 2 ("Information obtained from MIS is regularly updated and timely") with a mean of $M = 3.08$, $SD = 1.17$,

suggesting that participants slightly agree on the timeliness of MIS outputs. This was followed by item 3 ("MIS provides information relevant to administrative decision-making tasks") with a mean of **M = 3.02, SD = 1.22**.

Conversely, item 4 ("Information from MIS effectively supports routine administrative tasks") had the lowest mean score (**M = 2.93, SD = 1.16**), indicating lower confidence in MIS's role in supporting day-to-day decisions. Similarly, item 1 ("MIS consistently provides accurate information necessary for decision-making") received **M = 2.94, SD = 1.27**, further emphasizing that users perceive only **moderate accuracy** in the information provided by MIS.

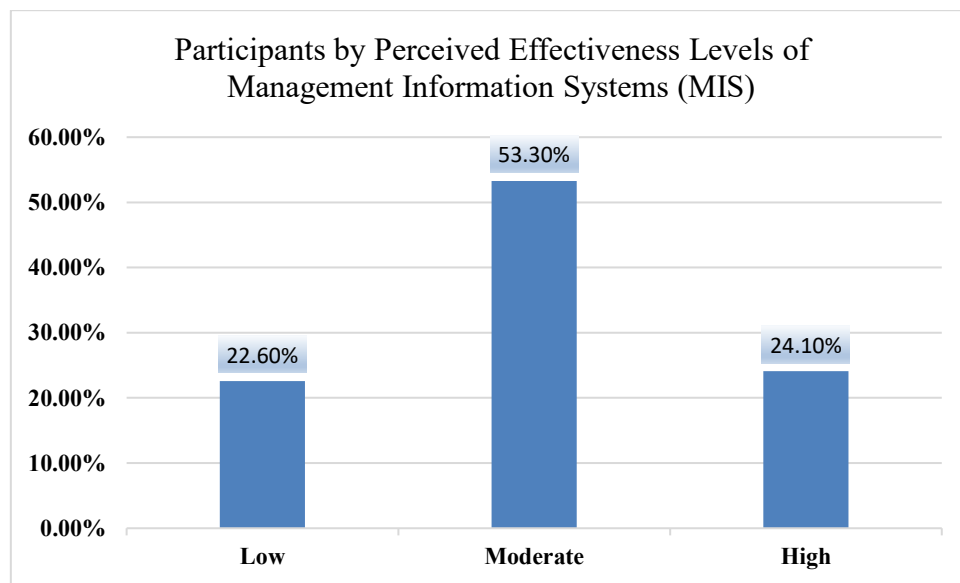
In terms of Effectiveness, the majority of respondents fell into the moderate effectiveness category (53.3%), with 24.1% reporting high effectiveness, and 22.6% perceiving low effectiveness. This suggests a somewhat balanced but skewed perception toward moderate functionality, highlighting that while MIS is recognized as effective by many, there is still a sizable segment perceiving inadequacies in system performance (See figure 2)

Table 4 Descriptive Statistics of MIS Effectiveness for Administrative Decision-Making (N = 323)

Items	Mean	SD
1. MIS consistently provides accurate information necessary for decision-making.	2.94	1.27
2. Information obtained from MIS is regularly updated and timely.	3.08	1.17
3. MIS provides information relevant to administrative decision-making tasks.	3.02	1.22

4. Information from MIS effectively supports routine administrative tasks.	2.93	1.16
5. MIS provides comprehensive reports and summaries suitable for administrative decision-making.	2.96	1.22
Total	14.93	5.61

Figure 2 Distribution of Participants by Perceived Effectiveness Levels of Management Information Systems (MIS).



4.5 Impact of MIS on Administrative Decision-Making

The aggregate score for the impact domain was $M = 15.35$, $SD = 5.41$, which corresponds to a moderate perceived impact. The most highly rated items were item 2 ("Decision-making speed has increased significantly with the implementation of MIS") and item 5 ("MIS implementation has minimized administrative errors during decision-making processes"), both with $M = 3.10$, $SD = 1.13$, reflecting participants' agreement that MIS contributes positively to speed and accuracy in administrative operations.

Item 4 ("MIS enables faster identification and response to business opportunities and problems") and item 1 ("Using MIS has improved the quality of

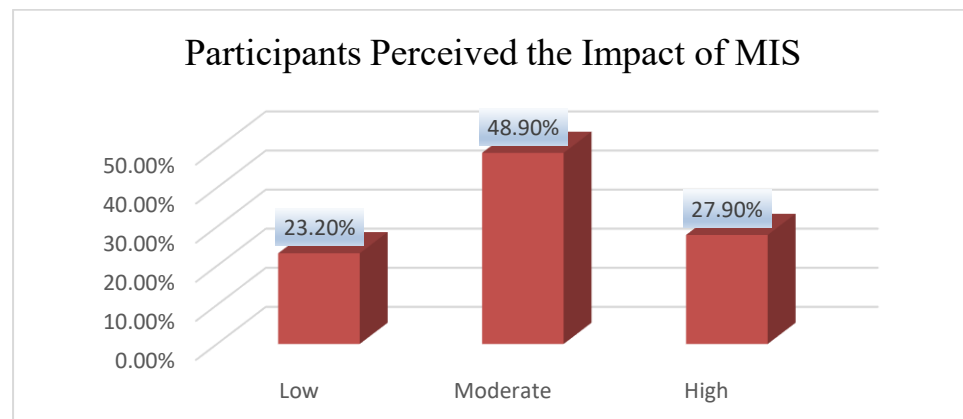
administrative decisions") followed closely with mean scores of $M = 3.05$ and $M = 3.09$, respectively. These scores demonstrate a favorable perception of MIS in enabling faster and more informed decisions.

For Impact, 48.9% of participants reported moderate impact, while 27.9% perceived high impact, and 23.2% reported low impact. The pattern mirrors that of the effectiveness category, underscoring that although many acknowledge the beneficial role of MIS in administrative decision-making, a notable portion remains unconvinced of its full impact (See figure 3).

Table 5 Descriptive Statistics of MIS Impact on Administrative Decision-Making (N = 323)

Items	Mean	SD
1. Using MIS has improved the quality of administrative decisions.	3.09	1.13
2. Decision-making speed has increased significantly with the implementation of MIS.	3.10	1.13
3. MIS enhances overall efficiency in the administrative decision-making process.	3.02	1.17
4. MIS enables faster identification and response to business opportunities and problems.	3.05	1.13
5. MIS implementation has minimized administrative errors during decision-making processes.	3.10	1.13
Total	15.35	5.41

Figure 3 Distribution of Participants by Perceived Impact Levels of Management Information Systems (MIS)



4.6 Comparison of Perceptions by Demographic Variables

Table 6 explores the relationship between participants' perceptions of MIS and various demographic characteristics, using t-tests and ANOVA. In terms of gender, the mean perception score for males ($M = 16.83$, $SD = 6.15$) was higher than for females ($M = 15.97$, $SD = 6.01$), though the difference was not statistically significant ($t = 1.149$, $p = .251$), indicating that gender did not meaningfully influence MIS perception. Age-based differences were statistically significant ($F = 7.349$, $p < .001$), with perception scores increasing with age. Participants over 50 years reported the highest perception scores ($M = 19.14$, $SD = 4.92$), suggesting that older respondents tend to view MIS more positively, possibly due to greater experience or higher-level roles in decision-making.

Significant variation was also observed across educational levels ($F = 6.685$, $p < .001$). Participants holding doctoral degrees had the highest perception scores ($M = 19.00$, $SD = 5.14$), whereas those with diplomas had the lowest ($M = 14.89$, $SD = 5.52$), suggesting that higher educational attainment is associated with more favorable perceptions of MIS. Regarding years of experience, a statistically significant difference

was found ($F = 7.975$, $p < .001$), with the most experienced group (>10 years) reporting the highest perceptions ($M = 19.67$, $SD = 5.17$). This may indicate that tenure in administrative roles enhances understanding and appreciation of MIS functionality.

Finally, organizational position significantly influenced perceptions ($F = 9.384$, $p < .001$). Administrative staff reported the highest perception scores ($M = 18.02$, $SD = 5.91$), while top management had the lowest ($M = 14.85$, $SD = 5.74$). This counterintuitive finding could suggest that frontline administrative personnel, who interact more directly with MIS tools, may appreciate their utility more than senior managers, who may be less involved in daily system use.

Table 6 Relationship between participants' perceptions of MIS and various demographic characteristics.

Demographic variables		Mean	SD	F/t test	p-value
Gender	Male	16.83	6.145	$t=1.149$	$p=0.251$
	Female	15.97	6.012		
Age	20–30 years	15.05	5.876	$F=7.349$	$p=0.000$
	31–40 years	15.16	6.231		
	41–50 years	17.13	6.245		
	Over 50 years	19.14	4.918		
Education Level	Diploma	14.89	5.518	$F=6.685$	$p=0.000$
	Bachelor's degree	15.06	6.067		
	Master's degree	16.77	6.373		
	Doctorate	19.00	5.139		
Years of experience in administrative role	1–5 years	15.71	5.946	$F=7.975$	$p=0.000$
	6–10 years	16.25	6.227		
	Over 10 years	19.67	5.174		
Position in the organization	Top management	14.85	5.744	$F=9.384$	$p=0.000$
	Middle management	15.39	6.174		
	Administrative staff	18.02	5.910		

4.7 Comparison of Effectiveness Scores by Demographic Variables

Table 6 presents the comparison of participants' **perceptions of MIS effectiveness** across demographic variables using independent t-tests and one-way ANOVA.

For **gender**, the difference in effectiveness scores between male ($M = 14.90$, $SD = 5.81$) and female respondents ($M = 15.01$, $SD = 5.12$) was minimal and statistically non-significant ($t = -0.154$, $p = .878$), indicating that both groups perceived MIS effectiveness similarly.

Significant differences were observed across **age groups** ($F = 10.359$, $p < .001$). Participants over 50 years reported the highest effectiveness scores ($M = 18.11$, $SD = 5.52$), while the 31–40 age group had the lowest ($M = 13.45$, $SD = 4.93$). These findings suggest that **older employees tend to view MIS as more effective**, potentially due to greater experience or exposure to decision-making tools.

Education level was also a significant factor ($F = 5.492$, $p = .001$). Participants with doctoral degrees scored highest in effectiveness ($M = 16.94$, $SD = 5.97$), whereas those with diplomas scored lowest ($M = 13.50$, $SD = 4.97$). This result implies a **positive association between educational attainment and perceived MIS effectiveness**, possibly linked to greater familiarity with information systems among more educated respondents.

In terms of **experience**, a highly significant difference emerged ($F = 18.315$, $p < .001$). The group with over 10 years of experience reported the highest effectiveness scores ($M = 19.06$, $SD = 5.33$), while those with 1–5 years reported the lowest ($M = 13.64$, $SD = 5.12$). This supports the view that **experience in administrative roles enhances the ability to appreciate and utilize MIS functionalities effectively**.

Finally, **organizational position** also yielded significant variation ($F = 9.801$, $p < .001$). Administrative staff reported the highest effectiveness scores ($M = 16.28$, $SD = 5.96$), followed by top management ($M = 14.00$, $SD = 4.55$) and middle management ($M = 13.36$, $SD = 5.16$). These results indicate that **those directly involved in routine operations may perceive MIS as more beneficial** compared to those in supervisory or executive roles.

Table 7 Comparison of participants' perceptions of MIS effectiveness across demographic variables (N = 323)

Demographic Variables		Mean	SD	F/t test	p-value
Gender	Male	14.90	5.811	$t = -.154$	$p = 0.878$
	Female	15.01	5.117		
Age	20–30 years	14.07	4.876	$F = 10.359$	$p = 0.000$
	31–40 years	13.45	4.931		
	41–50 years	14.82	5.914		
	Over 50 years	18.11	5.515		
Education Level	Diploma	13.50	4.971	$F = 5.492$	$p = 0.001$
	Bachelor's degree	13.65	4.760		
	Master's degree	15.11	5.817		
	Doctorate	16.94	5.965		
Years of experience in administrative role	1–5 years	13.64	5.116	$F = 18.315$	$p = 0.000$
	6–10 years	14.58	5.478		
	Over 10 years	19.06	5.328		
Position in the organization	Top management	14.00	4.554	$F = 9.801$	$p = 0.000$
	Middle management	13.36	5.158		
	Administrative staff	16.28	5.963		

4.8 Comparison of Impact Scores by Demographic Variables

Table 7 compares participants' perceptions of the impact of MIS on administrative decision-making across gender, age, education, experience, and organizational position. No significant gender differences were observed ($t = 0.495$, p

= .621), with similar mean scores reported by males ($M = 15.45$, $SD = 5.46$) and females ($M = 15.12$, $SD = 5.30$), indicating consistent perceptions of MIS impact across gender lines.

However, age differences were significant ($F = 12.252$, $p < .001$). The over-50 age group again reported the highest impact scores ($M = 18.53$, $SD = 5.35$), while the 31–40 group reported the lowest ($M = 13.57$, $SD = 4.85$). These findings mirror those from Table 7, supporting the idea that older individuals perceive a greater impact of MIS on decision-making efficiency.

A statistically significant relationship also emerged between education level and impact ($F = 9.386$, $p < .001$). Participants with doctoral degrees reported the highest impact perceptions ($M = 17.88$, $SD = 5.05$), while those with bachelor's degrees reported the lowest ($M = 13.71$, $SD = 4.83$). These results suggest that advanced education enhances recognition of MIS's strategic value in decision processes.

Regarding experience, the results were highly significant ($F = 15.581$, $p < .001$). Participants with more than 10 years of experience reported the greatest impact scores ($M = 19.12$, $SD = 5.60$), while those with the least experience (1–5 years) had the lowest ($M = 14.39$, $SD = 4.72$). This reinforces the notion that longer exposure to administrative processes correlates with stronger appreciation for the role of MIS.

Organizational position was also significantly related to MIS impact ($F = 8.836$, $p < .001$). Administrative staff reported the highest scores ($M = 16.59$, $SD = 5.79$), compared to middle ($M = 13.99$, $SD = 4.82$) and top management ($M = 14.35$, $SD = 4.59$). As in earlier findings, those working at operational levels appear more directly

influenced by MIS capabilities, possibly due to daily system interaction and dependence.

Table 8 Comparison of Impact Scores by Demographic Variables

Demographic variables		Mean	SD	F/t test	p-value
Gender	Male	15.45	5.462	t=.495	p=0.621
	Female	15.12	5.301		
Age	20–30 years	14.71	4.770	F=12.252	p=0.000
	31–40 years	13.57	4.847		
	41–50 years	15.38	5.463		
	Over 50 years	18.53	5.351		
Education Level	Diploma	13.81	5.104	F=9.386	p=0.000
	Bachelor's degree	13.71	4.829		
	Master's degree	15.52	5.548		
	Doctorate	17.88	5.048		
Years of experience in administrative role	1–5 years	14.39	4.718	F=15.581	p=0.000
	6–10 years	14.88	5.353		
	Over 10 years	19.12	5.596		
Position in the organization	Top management	14.35	4.586	F=8.836	p=0.000
	Middle management	13.99	4.816		
	Administrative staff	16.59	5.793		

4.9 Correlation Between Perceptions, Effectiveness, and Impact

Table 8 presents the Pearson correlation coefficients among the three key study variables: Perceptions, Effectiveness, and Impact of MIS use in administrative decision-making. The results reveal statistically significant positive correlations between all variables at the $p < .01$ level. There is a moderate positive correlation

between perceptions and effectiveness ($r = .546, p < .001$), indicating that more favorable perceptions of MIS are associated with higher perceived effectiveness. This suggests that users who view MIS more positively tend to recognize its utility in providing timely and relevant decision-making support.

A strong positive correlation was found between effectiveness and impact ($r = .845, p < .001$), demonstrating that participants who perceive MIS as effective are also more likely to recognize its strong impact on administrative decision-making outcomes. This is consistent with the theoretical expectation that effectiveness is a precursor to actual impact. Additionally, perceptions and impact were also strongly correlated ($r = .664, p < .001$), reinforcing the idea that subjective evaluations of MIS usability and experience significantly relate to how impactful the system is perceived to be. These findings support the internal consistency of the study's conceptual framework and suggest a coherent relationship between MIS perception, effectiveness, and perceived impact.

Table 9 Pearson Correlation Matrix Among Perceptions, Effectiveness, and Impact Scores

Correlations				
		Perceptions	Effectiveness	Impact
Perceptions	Pearson Correlation	1	.546**	.664**
	Sig. (2-tailed)		.000	.000
	N	323	323	323
Effectiveness	Pearson Correlation	.546**	1	.845**
	Sig. (2-tailed)	.000		.000
	N	323	323	323
Impact	Pearson Correlation	.664**	.845**	1
	Sig. (2-tailed)	.000	.000	
	N	323	323	323

** . Correlation is significant at the 0.01 level (2-tailed).

4.10 Predicting MIS Impact Based on Perceptions and Effectiveness

Table 9 presents the results of a multiple linear regression analysis conducted to examine the extent to which perceptions and effectiveness of Management Information Systems (MIS) predict their perceived impact on administrative decision-making among employees in SMEs in Riyadh. The regression model was statistically significant, $F(2, 320) = 541.75$, $p < .001$, and explained a substantial portion of the variance in the dependent variable, with an R^2 value of .772. This indicates that approximately 77.2% of the variance in MIS impact can be accounted for by the combined influence of MIS perceptions and effectiveness.

Both predictor variables made statistically significant contributions to the model. Effectiveness was the strongest predictor, with a standardized coefficient of $\beta = .687$, $t = 21.56$, $p < .001$, indicating that higher perceived effectiveness of MIS was strongly associated with a greater perceived impact on administrative decision-making. Perceptions also contributed significantly to the model, with $\beta = .289$, $t = 9.07$, $p < .001$, suggesting that more favorable attitudes toward MIS were associated with greater perceived impact, though to a lesser extent than effectiveness.

Collinearity statistics showed acceptable values ($VIF = 1.425$ for both predictors), indicating no multicollinearity issues. These results confirm that both user perceptions and the perceived operational effectiveness of MIS are important predictors of their impact, with system effectiveness emerging as the most influential factor. Thus, enhancing the technical performance and reliability of MIS may be more critical than

improving user sentiment alone when aiming to maximize the systems' strategic impact within SMEs.

Table 10 Multiple Linear Regression Analysis Predicting MIS Impact Based on Perceptions and Effectiveness

Predictor	B	SE B	β	t	p	Tolerance	VIF
(Constant)	1.223	0.464	—	2.634	.009	—	—
Perceptions	0.256	0.028	0.289	9.066	< .001**	0.702	1.425
Effectiveness	0.662	0.031	0.687	21.557	< .001**	0.702	1.425
Model Summary: $R = .879$, $R^2 = .772$, Adjusted $R^2 = .771$, $F(2, 320) = 541.75$, $p < .001$ Note. B = unstandardized regression coefficient; $SE B$ = standard error of the coefficient; β = standardized regression coefficient; VIF = variance inflation factor. $p < .001^{**}$							

4.11 Chapter Summary

This chapter provided a comprehensive presentation of the study's empirical findings. The demographic analysis revealed a diverse yet professionally experienced sample of administrative personnel. Descriptive statistics showed that participants generally held moderate to high perceptions of MIS, and rated both its effectiveness and impact on decision-making processes favorably. Inferential analyses revealed statistically significant differences in MIS perceptions, effectiveness, and impact based on age, education, experience, and organizational role, but not by gender. Strong positive correlations were found among the three key variables. Furthermore, multiple linear regression analysis demonstrated that both MIS perceptions and effectiveness

significantly predicted perceived impact, with effectiveness emerging as the stronger predictor. These findings provide empirical support for the conceptual framework and lay the foundation for the interpretation and implications discussed in the following chapter.

Chapter 5: Discussion

5.1 Introduction

This chapter provides an in-depth discussion of the findings presented in Chapter 4, contextualized within the framework of existing literature and the research objectives. The discussion interprets the results regarding the effectiveness, impact, and user perceptions of Management Information Systems (MIS) in administrative decision-making among SMEs in Riyadh. Additionally, the chapter explores demographic influences, examines correlations between variables, and highlights implications for organizational practice and future research.

5.2 Participants' Perceptions Regarding Management Information Systems (MIS)

The results of this study indicate that participants generally held **moderate to high perceptions** of MIS use in their organizations, as reflected by a mean score of 16.58 (SD = 6.11) out of a possible 25. Additionally, 40.2% of respondents were categorized as having high perceptions, and 39.9% as moderate. These findings suggest a broadly favorable attitude toward MIS among administrative personnel in SMEs in Riyadh.

These results align closely with previous literature. For instance, **Khudhur (2017)** found that administrative staff perceived MIS as beneficial tools that enhance access to timely and relevant information, especially at lower and middle management levels. Similarly, **Allahawiah et al. (2020)** reported strong perceptions of MIS among university staff in Jordan, with an emphasis on the relevance and reliability of the information provided.

Interestingly, the present study also found that perception scores varied significantly with demographic characteristics. Older employees and those with higher

educational levels or more years of experience reported significantly more favorable perceptions. This is consistent with **Hamdat et al. (2024)**, who observed that user proficiency and familiarity with digital systems significantly influence attitudes toward MIS adoption and utility.

Moreover, the favorable perception scores reported in this study support the broader theoretical models such as the **Technology Acceptance Model (TAM)**, which emphasize perceived usefulness and ease of use as key determinants of system acceptance (Davis, 1989; as cited in Hamdat et al., 2024). As users gain more experience with MIS and recognize their value in administrative functions, their perceptions tend to improve, contributing to better utilization and integration of these systems.

However, it is worth noting that nearly 20% of respondents exhibited low perceptions, suggesting the presence of structural or experiential barriers, such as inadequate training or lack of involvement in system development—issues also noted by **Musa et al. (2020)** in their study on academic librarians in Nigeria.

5.3 Perceived Effectiveness of MIS in Administrative Decision-Making

The results regarding the perceived **effectiveness** of MIS in supporting administrative decision-making processes were moderately positive, with a mean score of 14.93 (SD = 5.61) and over half of participants (53.3%) classified in the moderate category. These findings indicate that while MIS are generally seen as effective in providing accurate, timely, and relevant information, there remains room for improvement in system performance or alignment with user needs.

This perception of moderate effectiveness is consistent with the findings of **Egbuniwe (2019)**, who emphasized that MIS significantly contribute to improving

decision quality through accurate and timely data, though system performance may vary depending on institutional investment and support. Similarly, **Ali and Gürkan (2022)** found that the quality of MIS plays a significant role in financial decision-making, with timely and reliable information leading to greater decision efficiency.

The present study also revealed demographic influences on perceived effectiveness. Respondents with higher educational levels and more years of experience reported significantly higher effectiveness scores, suggesting that **technical competence and professional maturity** are key factors in appreciating MIS capabilities. These findings echo those of **Bani Hushayyish et al. (2023)**, who reported that hospital staff with strong IT competencies perceived healthcare information systems as highly effective in improving administrative outcomes.

Furthermore, the variation in effectiveness perceptions across organizational roles—where administrative staff reported higher effectiveness scores than top or middle managers—suggests that **those directly engaged with daily MIS operations** may have a clearer view of their functional utility. This pattern is also evident in **Shniekat et al. (2022)**, who noted that user proximity to system functions correlates with more favorable evaluations of MIS effectiveness.

Despite generally positive results, a notable minority (22.6%) reported low effectiveness. This finding points to persistent challenges such as **technological limitations, inadequate system updates, or lack of integration with organizational processes**, which have been similarly reported in studies by **Musa et al. (2020)** and **Muhail and Abdullah (2024)**. In conclusion, while MIS are broadly perceived as effective in supporting decision-making, enhancing system responsiveness, accuracy,

and user engagement remains essential to ensuring their full potential is realized across all administrative levels.

5.4 Perceived Impact of MIS on Administrative Decision-Making

The findings of this study revealed that participants generally perceive **Management Information Systems (MIS)** as having a **moderate impact** on administrative decision-making. The mean score for this domain was 15.35 (SD = 5.41), with 48.9% of participants classified in the moderate category, 27.9% in the high category, and 23.2% in the low category. These results suggest that while most administrative personnel recognize the positive role MIS plays in supporting effective decision-making, a significant proportion remains either uncertain or unconvinced of the system's full potential.

The highest-rated items within this domain were related to **decision-making speed and error reduction**, supporting the notion that MIS enhance both the **efficiency** and **accuracy** of administrative decisions. These findings are consistent with those of **Hamdat et al. (2024)**, who demonstrated that MIS use is associated with greater decision speed and organizational agility. Similarly, **Khudhur (2017)** found that MIS improves decision-making quality, especially at the operational and middle management levels, by providing decision-makers with timely and relevant data.

Moreover, the current study found significant differences in perceived impact across demographic groups. Participants over 50 years of age and those with more than 10 years of administrative experience reported higher impact scores, suggesting that **greater exposure to decision-making responsibilities may increase recognition of MIS benefits**. This supports the conclusions of **Alsuhaimi (2025)**, who found that data-

driven decision-making is more effectively realized in environments with experienced personnel, robust infrastructure, and high-level managerial support.

From an organizational perspective, these findings emphasize that **MIS contributes to improved decision outcomes** not only by enhancing speed but also by supporting informed, data-based decision-making processes. However, the relatively large proportion of participants reporting low impact highlights persistent challenges—such as **limited system capabilities, lack of integration, or user resistance**—that may reduce the strategic value of MIS.

This mixed perception is consistent with findings by **Muhail and Abdullah (2024)**, who emphasized that while MIS can significantly enhance decision quality in security-related settings, their success is contingent on factors such as leadership support, staff training, and ongoing technological development. Likewise, **Ali and Gürkan (2022)** found that information system impact is mediated by information quality and that **system design and user experience** are critical components influencing effectiveness and impact.

In summary, while MIS are largely perceived as beneficial tools that enhance the **speed, accuracy, and reliability** of administrative decision-making, maximizing their impact requires **addressing organizational, technological, and human factors**. Investments in training, system upgrades, and alignment of MIS capabilities with organizational goals was key to enhancing their overall influence.

5.5 Relationships Between Demographic Variables and MIS Perception, Effectiveness, and Impact

Across all three variables—perception, effectiveness, and impact—**gender differences were not statistically significant**, with *p*-values well above the .05

threshold. For example, in perceptions of MIS, males ($M = 16.83$) scored slightly higher than females ($M = 15.97$), but the difference was not significant ($t = 1.149$, $p = .251$). These findings are consistent with prior research by **Shniekat et al. (2022)** and **Ali and Gürkan (2022)**, both of which reported negligible gender-based differences in MIS attitudes or system effectiveness. This suggests that gender is **not a key determinant** of how MIS is perceived or utilized within administrative contexts, at least in professional environments where access and roles are relatively balanced.

Age was found to be a **significant factor** influencing all three MIS domains. Participants over the age of 50 consistently reported higher scores in perception ($M = 19.14$), effectiveness ($M = 18.11$), and impact ($M = 18.53$) compared to younger age groups ($p < .001$ across all comparisons). These results align with studies such as **Hamdat et al. (2024)** and **Alsuhaime (2025)**, which highlight that **age and experience contribute to a deeper understanding and appreciation of MIS tools**, especially when systems are aligned with decision-making responsibilities typically held by older staff. This could also reflect greater familiarity with strategic-level decision-making and more extensive system interaction over time.

Education level also demonstrated **statistically significant differences** in participants' perceptions, perceived effectiveness, and perceived impact of MIS. Respondents holding doctoral degrees had the highest scores across all three domains (e.g., perception $M = 19.00$; effectiveness $M = 16.94$; impact $M = 17.88$). These findings are in line with the study by **Khudhur (2017)**, which emphasized the role of higher education in facilitating advanced MIS use and understanding. Moreover, **Ali and Gürkan (2022)** found that participants with higher academic qualifications were

better able to assess the quality of information systems and use them effectively for financial and strategic decision-making.

A significant positive relationship was found between **experience and MIS perception, effectiveness, and impact**, with those having over 10 years of experience reporting the highest scores (e.g., impact $M = 19.12$, $p < .001$). This trend reinforces the conclusion that **tenure and familiarity with decision-making processes enhance both system usability and confidence in MIS utility**, as also evidenced in **Bani Hushayyish et al. (2023)** and **Musa et al. (2020)**. These findings suggest that accumulated professional knowledge may enhance the ability to extract value from MIS platforms, particularly when users are involved in complex administrative processes.

Organizational role had a statistically significant influence across all MIS domains. Interestingly, **administrative staff consistently reported higher scores** than middle or top management, particularly in perception ($M = 18.02$) and impact ($M = 16.59$). This could be attributed to **more frequent and direct interaction** with MIS platforms among operational-level employees. This finding aligns with **Shniekat et al. (2022)**, who noted that proximity to MIS functions plays a critical role in shaping user perceptions and perceived effectiveness. On the other hand, top management may view MIS more abstractly, or may rely more on summarized reports than on daily system interaction.

In summary, demographic factors—particularly **age, education, experience, and job role**—significantly affect how MIS is perceived and evaluated. These results suggest that **MIS training and implementation strategies** should be tailored to user characteristics, ensuring that all employees, regardless of position or tenure, are

equipped to effectively engage with these systems. Addressing this variation could enhance both the adoption and the strategic impact of MIS within SMEs.

5.6 Relationships Among MIS Perception, Effectiveness, and Impact

This section examines the interrelationships among the three core variables of the study: **Perception**, **Effectiveness**, and **Impact** of Management Information Systems (MIS) in administrative decision-making. These relationships were assessed using **Pearson correlation coefficients** and **multiple linear regression analysis**.

The Pearson correlation results revealed **strong and statistically significant positive relationships** between all three variables: A **moderate positive correlation** was found between **Perceptions** and **Effectiveness** ($r = .546, p < .001$), indicating that participants who view MIS more favorably tend to also perceive them as more effective in delivering accurate and timely information. A **strong correlation** emerged between **Effectiveness** and **Impact** ($r = .845, p < .001$), suggesting that **the more effective the MIS is perceived to be, the more impactful it is considered** in supporting administrative decision-making.

- A **strong positive relationship** also existed between **Perceptions** and **Impact** ($r = .664, p < .001$), confirming that positive attitudes toward MIS are significantly associated with perceptions of their decision-making impact.

These results are consistent with the findings of **Egbuniwe (2019)** and **Ali and Gürkan (2022)**, who reported that MIS usage, when perceived positively and experienced as effective, correlates strongly with enhanced decision-making outcomes. Similarly, **Hamdat et al. (2024)** highlighted that system effectiveness and user attitudes are interdependent factors contributing to organizational agility and decision quality.

To further explore these relationships, a **multiple linear regression analysis** was conducted to determine whether perceptions and effectiveness predict the perceived impact of MIS (Table 10). The model was statistically significant, $F(2, 320) = 541.75, p < .001$, and accounted for a substantial **77.2% of the variance** in the impact of MIS ($R^2 = .772$).

Effectiveness was the **strongest predictor** of impact ($\beta = .687, p < .001$), indicating that participants who perceived the system as functionally effective also reported the highest levels of perceived decision-making impact. **Perceptions** also contributed significantly to the model ($\beta = .289, p < .001$), though to a lesser extent than effectiveness.

These findings reinforce the proposition that **the perceived impact of MIS is largely determined by both the functional quality of the system (effectiveness) and the attitudes of users (perceptions)**. This aligns with the **Technology Acceptance Model (TAM)** and the **Technology-Organization-Environment (TOE) framework**, both of which emphasize the importance of system characteristics and user experience in determining technology-related outcomes (Hamdat et al., 2024; Alsuhaimi, 2025).

Together, the correlation and regression analyses highlight a **mutually reinforcing relationship** among MIS perception, effectiveness, and impact. Effective systems are more likely to generate positive user perceptions, and these perceptions, in turn, amplify the systems' perceived usefulness in decision-making. However, the dominance of **effectiveness** as a predictor suggests that **practical functionality and reliability of MIS play a more critical role than user sentiment alone**. Thus, organizations should focus on both **enhancing technical performance** and **building user trust and engagement** to fully realize the strategic potential of MIS.

5.7 Practical Implications

The findings of this study have important practical implications for small and medium-sized enterprises (SMEs) in Riyadh seeking to enhance the quality and efficiency of administrative decision-making through Management Information Systems (MIS). Firstly, the study demonstrated that **system effectiveness is a strong predictor** of MIS impact. Therefore, SMEs should prioritize the continuous development and refinement of MIS functionalities to ensure the delivery of accurate, timely, and relevant information for administrative purposes.

Secondly, the study revealed that **user perceptions also significantly influence MIS impact**. Hence, it is essential that decision-makers invest in strategies that enhance user engagement and satisfaction with MIS. This includes comprehensive training, involving users in system development and evaluation processes, and ensuring the user interface is intuitive and responsive to administrative tasks.

Thirdly, the significant differences in MIS perceptions and usage across age, education, and experience levels underscore the need for **personalized training and capacity-building programs**. These programs should target specific user groups to bridge skill gaps and foster a culture of MIS acceptance and proficiency across all organizational levels.

Finally, the strong correlations among perceptions, effectiveness, and impact highlight the need for an **integrated MIS strategy** that aligns technical infrastructure with organizational objectives. Senior management must ensure MIS initiatives are not isolated IT projects but are embedded within strategic decision-making frameworks.

5.8 Limitations of the Study

While this study provides valuable insights into the role of MIS in administrative decision-making within SMEs in Riyadh, several limitations must be acknowledged:

1. **Cross-sectional design:** The study employed a cross-sectional methodology, capturing participant responses at a single point in time. This limits the ability to assess causality or observe changes in MIS perceptions and usage over time.
2. **Self-reported data:** Data were collected using self-administered questionnaires, which may be influenced by social desirability bias, recall bias, or misinterpretation of questions.
3. **Sampling technique:** The use of a non-probability, convenience sampling technique limits the generalizability of findings beyond the sample. The perspectives of SMEs in other regions of Saudi Arabia or other sectors may differ.

5.9 Recommendations for Future Research

1. **Longitudinal studies** should be conducted to examine how perceptions of MIS and their impact evolve over time, especially with the implementation of new technologies or system upgrades.
2. **Qualitative or mixed-methods research** is recommended to complement quantitative findings with deeper insights into user experiences, attitudes, and contextual challenges in MIS adoption and usage.
3. **Comparative studies** across industries or regions can help identify sector-specific challenges and best practices in MIS implementation within Saudi Arabia or the broader Gulf region.

4. Future research should examine **additional variables**, such as organizational culture, top management support, data security concerns, and infrastructure readiness, which may influence the success of MIS in decision-making contexts.
5. Studies involving **larger, probabilistic samples** would improve the generalizability of results and provide a more representative picture of MIS usage across diverse organizational settings.
6. Research could also explore **technological innovations** in MIS, such as AI-integrated decision support systems, and assess their potential in improving strategic and operational decision-making in SMEs.

5.10 Conclusion

This study investigated the role of Management Information Systems (MIS) in enhancing administrative decision-making in small and medium-sized enterprises (SMEs) in Riyadh. The findings demonstrated that participants generally held moderate to high perceptions of MIS and recognized their effectiveness and impact in administrative contexts. Significant relationships were observed among the three domains—perception, effectiveness, and impact—highlighting the interdependence of user attitudes, system functionality, and organizational outcomes.

Demographic factors, such as age, education, and experience, significantly influenced perceptions and evaluations of MIS, suggesting the importance of targeted training and inclusive system design. Moreover, regression analysis confirmed that both perceptions and effectiveness significantly predict MIS impact, with effectiveness playing a more dominant role. The study concludes that to maximize the value of MIS, SMEs must invest in both technological development and human-centered approaches. This includes improving system functionality, fostering user engagement, and integrating MIS into broader organizational strategies. By addressing these dimensions,

organizations can ensure that MIS becomes a vital enabler of efficient, timely, and data-driven administrative decision-making.

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Appendixes

Appendix 1: Questionnaire

Dear Participant,

This questionnaire aims to evaluate the role and impact of Management Information Systems (MIS) on administrative decision-making in small and medium-sized enterprises (SMEs) in Riyadh. Your participation is voluntary and confidential. Your responses was used exclusively for academic research purposes. Thank you for your cooperation.

Section A: Demographic Information

Gender

- ☐ Male
- ☐ Female

Age

- ☐ 20–30 years
- ☐ 31–40 years
- ☐ 41–50 years
- ☐ Over 50 years

Educational Level

- ☐ Diploma
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctorate

Years of experience in administrative roles

- ☐ Less than 1 year
- ☐ 1–5 years
- ☐ 6–10 years
- ☐ Over 10 years

Position in the organization

- ☐ Top management
- ☐ Middle management
- ☐ Administrative staff
- ☐ Other (please specify): _____

Section B: User Perceptions Regarding MIS

Please indicate your level of agreement with the following statements on a 5-point Likert scale.

Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1. MIS is user-friendly and easy to navigate.	☐	☐	☐	☐	☐
2. I feel confident using MIS in performing my administrative duties.	☐	☐	☐	☐	☐
3. The organization provides sufficient training to effectively use MIS.	☐	☐	☐	☐	☐
4. MIS positively contributes to my job satisfaction and productivity.	☐	☐	☐	☐	☐
5. I would recommend broader implementation and usage of MIS across my organization.	☐	☐	☐	☐	☐

Section C: Effectiveness of MIS (Accuracy, Timeliness, Relevance)

Please indicate your level of agreement with the following statements on a 5-point Likert scale.

Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1. MIS consistently provides accurate information necessary for decision-making.	☐	☐	☐	☐	☐
2. Information obtained from MIS is regularly updated and timely.	☐	☐	☐	☐	☐
3. MIS provides information relevant to administrative decision-making tasks.	☐	☐	☐	☐	☐
4. Information from MIS effectively supports routine administrative tasks.	☐	☐	☐	☐	☐
5. MIS provides comprehensive reports and summaries suitable for administrative decision-making.	☐	☐	☐	☐	☐

Section D: Impact of MIS on Decision-Making Quality, Speed, and Efficiency

Please indicate your level of agreement with the following statements on a 5-point Likert scale.

Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1. Using MIS has improved the quality of administrative decisions.	☐	☐	☐	☐	☐
2. Decision-making speed has increased significantly with the implementation of MIS.	☐	☐	☐	☐	☐

3. MIS enhances overall efficiency in the administrative decision-making process.	☐	☐	☐	☐	☐
4. MIS enables faster identification and response to business opportunities and problems.	☐	☐	☐	☐	☐
5. MIS implementation has minimized administrative errors during decision-making processes.	☐	☐	☐	☐	☐