



4.1 Introduction

This chapter presents the analysis and discussion of the data collected through the questionnaire. The collected data are analyzed using appropriate statistical techniques to achieve the objectives of the study and test the proposed hypothesis. This chapter includes the description of the study sample, validity and reliability tests of the questionnaire, descriptive statistics of the research variables, hypothesis testing, and discussion of the findings in relation to previous studies. The results presented in this chapter provide a clear understanding of the impact of Artificial Intelligence on managerial decision-making in Saudi companies.



4.2 Description of the Study Sample (Descriptive Statistics)

This section presents the demographic characteristics of the respondents who participated in this study. The participants are classified according to gender, age, educational level, and years of work experience. The demographic analysis provides a general overview of the study sample and helps in understanding the characteristics of the respondents.

Table 4.1 Gender Distribution

Percentage (%)	Frequency	Gender
		Male
		Female
100%		Total

Table 4.2 Age Distribution

Percentage (%)	Frequency	Age Group
		Less than 25 years
		25â€“34 years
		35â€“44 years
		45 years and above
100%		Total

Table 4.3 Educational Level

Percentage (%)	Frequency	Educational Level
		Diploma
		Bachelorâ€™s Degree
		Masterâ€™s Degree
		Doctorate
100%		Total

Table 4.4 Years of Work Experience

Percentage (%)	Frequency	Years of Experience
		Less than 5 years
		5â€“10 years
		More than 10 years
100%		Total



4.3 Validity and Reliability Tests of the Questionnaire

The validity and reliability of the questionnaire are important to ensure that the research instrument accurately measures the study variables and produces consistent results. Validity refers to the extent to which the questionnaire measures what it is intended to measure, while reliability refers to the consistency of the responses. In this study, the reliability of the questionnaire will be assessed using Cronbach's Alpha, while validity will be examined based on the consistency of the questionnaire items.

4.4 Descriptive Statistics of the Research Variables

The descriptive statistics of the research variables were analyzed to determine the respondents' perceptions regarding Artificial Intelligence and managerial decision-making. The mean and standard deviation were used to describe the responses for each statement included in the questionnaire.

4.5 Hypothesis Testing

Hypothesis testing was conducted to examine the relationship between Artificial Intelligence and managerial decision-making in Saudi companies. The analysis was performed using appropriate statistical techniques to determine whether Artificial Intelligence has a significant impact on managerial decision-making. The results of the statistical analysis were used to decide whether to accept or reject the research hypothesis.



4.6 Discussion of Findings

The findings of this study indicate that Artificial Intelligence plays an important role in supporting managerial decision-making in Saudi companies. AI technologies help managers analyze data more efficiently, improve the quality of decisions, reduce decision-making time, and enhance organizational performance. These findings are consistent with previous studies, which concluded that the effective adoption of Artificial Intelligence contributes to better managerial decisions and improved organizational outcomes. Therefore, organizations are encouraged to continue investing in AI technologies and provide the necessary training for employees to maximize the benefits of AI in managerial decision-making.

4.7 Chapter Summary

This chapter presented the analysis and discussion of the data collected through the questionnaire. It included the description of the study sample, validity and reliability tests, descriptive statistics of the research variables, hypothesis testing, and discussion of the findings. The results provided a better understanding of the impact of Artificial Intelligence on managerial decision-making in Saudi companies. The next chapter will present the conclusions of the study, recommendations, limitations, and suggestions for future research.