

Midocean University | Faculty of Management
Graduation Project

MIDOCEAN UNIVERSITY
Faculty of Management
Management Department

**Analyzing The Role of Data Analytics
in Business Decision Making
at Almajdouie Motors**

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Chapter 1

General Framework of the Study

1.1. Introduction

The automotive industry in the Kingdom of Saudi Arabia has witnessed remarkable growth in recent years, driven by accelerated economic development and increasing demand for vehicles across various segments. In this context, Almajdouie Motors emerges as one of the leading companies in the vehicle import and distribution sector within the Kingdom. The company provides a wide range of global automotive brands, focusing on meeting local market needs and delivering high-quality after-sales services.

With intensifying competition in the automotive sector, it has become essential for companies to rely on scientific and methodological approaches in their business decision-making. Decisions based solely on intuition and personal experience are no longer sufficient to achieve sustainable success in an environment characterized by rapid change and evolving customer expectations. This highlights the importance of data analytics as a strategic tool that helps management understand market trends, analyze customer behavior, improve operational efficiency, and make informed decisions based on accurate and reliable information.

Almajdouie Motors possesses an extensive database that includes information on daily sales, customer preferences, inventory levels, supplier performance, as well as maintenance service and spare parts data. However, the true value of this data lies not merely in its existence, but in the ability to analyze it and transform it into actionable insights. When this information is analyzed systematically, the company becomes capable of identifying purchasing patterns, forecasting future demand, and improving marketing and pricing strategies.

From a practical perspective, data analytics can contribute to improving various aspects of the company's operations. For example, historical sales data can be used to predict demand for specific car models, helping with inventory planning and avoiding vehicle shortages or surpluses. Customer interactions and feedback can be analyzed to enhance the purchasing experience and after-sales service. Additionally, data can be used to measure the effectiveness of marketing campaigns and identify the most influential channels for reaching the target audience.

This research aims to study and analyze the role of data analytics in improving business decision-making processes within Almajdouie Motors. The focus will be on understanding how data is used at various management levels, identifying challenges the company faces in

implementing effective data analysis, and exploring opportunities to enhance the utilization of these technologies. The study relies on analysis of secondary data available from the company, in addition to reviewing literature and previous studies related to data analytics in the automotive sector.

1.2. Research Problem

Despite significant technological advancement and the availability of sophisticated analytical tools, many companies in the automotive sector in Saudi Arabia face fundamental challenges in effectively leveraging their available data. While these companies possess vast amounts of information about their daily operations, transforming this data into well-informed strategic decisions remains an obstacle for many organizations.

In the context of Almajdouie Motors, the primary problem lies in the gap between the volume of available data and the ability to extract valuable insights that contribute to improving business performance. The company collects diverse information daily about sales, customer preferences, inventory movement, and team performance. However, the process of analyzing this data may not be systematic or comprehensive enough to support strategic decision-making based on strong evidence.

Hence, there is a need for deeper understanding of the role that data analytics can play in improving the quality of managerial decisions. The research problem can be summarized in the following main question: To what extent does data analytics contribute to improving business decision-making processes at Almajdouie Motors?

1.3. Research Significance

The significance of this research stems from several theoretical and practical considerations that make it a valuable addition to academic knowledge and practical applications in business management.

1.3.1. Theoretical Significance

From a theoretical perspective, this research contributes to enriching Arabic literature related to data analytics and its applications in the automotive sector specifically. Despite numerous studies on big data and advanced analytics, studies focusing on the Saudi market and the automotive sector in particular remain limited. The research also provides a conceptual framework clarifying the relationship between analytical capabilities and business decision quality, which may open avenues for future studies in this direction.

1.3.2. Practical Significance

At the practical level, the research provides practical insights that Almajdouie Motors and similar companies in the sector can benefit from. By identifying effective practices in using data analytics, management can develop better strategies to improve operational performance, increase customer satisfaction, and enhance competitive advantage. The research also helps highlight practical challenges facing the implementation of effective data analysis, enabling companies to take proactive measures to address them.

1.4. Research Questions

This research seeks to address the following key questions regarding the role of data analytics in business decision-making at Almajdouie Motors:

Main Research Question:

- To what extent does data analytics contribute to improving business decision-making processes at Almajdouie Motors?

Sub-Questions:

- RQ1: What types of data does Almajdouie Motors currently collect and analyze for decision-making purposes?
- RQ2: How is data analytics currently utilized across different management levels within the organization?
- RQ3: What are the main challenges and barriers to effective data analytics implementation at Almajdouie Motors?
- RQ4: What opportunities exist for enhancing data-driven decision-making capabilities within the company?

1.5. Research Objectives

Based on the research questions outlined above, this study aims to achieve the following objectives:

- To examine the current state of data collection and analysis practices at Almajdouie Motors.
- To investigate how data analytics influences decision-making processes across different organizational levels.
- To identify and analyze challenges that hinder effective implementation of data analytics within the company.
- To explore potential opportunities for improving data-driven decision-making capabilities.
- To provide practical recommendations for enhancing the utilization of data analytics in business operations.

1.6. Research Hypotheses

This research proposes the following hypotheses to be examined through empirical investigation:

- H1: There is a positive relationship between the extent of data analytics utilization and the quality of business decisions at Almajdouie Motors.
- H2: Companies that implement systematic data analysis processes experience improved operational efficiency compared to those relying primarily on intuition-based decisions.
- H3: Investment in data analytics capabilities positively correlates with customer satisfaction levels.
- H4: The presence of a data-driven organizational culture facilitates better strategic planning and execution.

1.7. Research Model

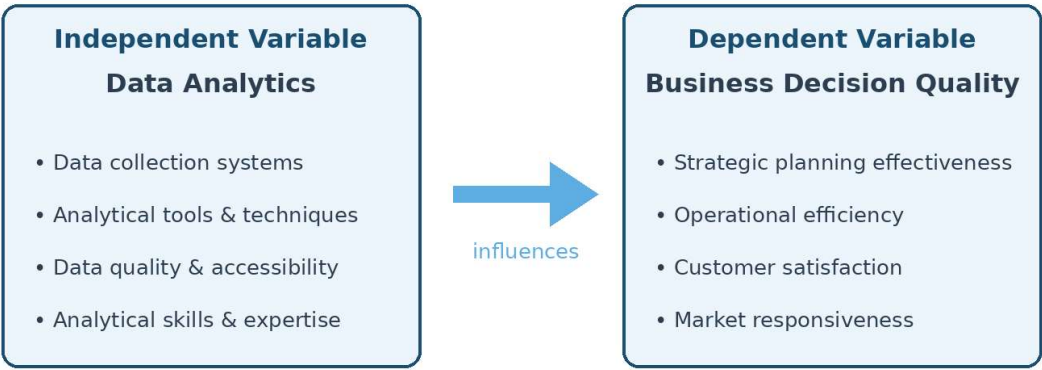
The conceptual framework for this research is based on examining the relationship between data analytics (independent variable) and business decision-making quality (dependent variable). The model includes:

Independent Variable	Dependent Variable
Data Analytics: • Data collection systems • Analytical tools and techniques • Data quality and accessibility • Analytical skills and expertise	Business Decision Quality: • Strategic planning effectiveness • Operational efficiency • Customer satisfaction • Market responsiveness

The model suggests that effective implementation of data analytics capabilities leads to improved business decision-making outcomes, mediated by factors such as organizational culture, technological infrastructure, and employee competencies.

Figure 1: Research Conceptual Model

Research Conceptual Model



1.8. Suggested Industry / Organization for Empirical Study

Almajdouie Motors has been selected as the primary organization for this empirical study based on several strategic considerations:

Company Background:

Founded in 1985 as a subsidiary of Almajdouie Group, Almajdouie Motors has established itself as a leading automotive distributor in Saudi Arabia. The company serves as the official dealer for multiple international brands including Hyundai, Genesis, Changan, Peugeot, and Citroën across various regions of the Kingdom.

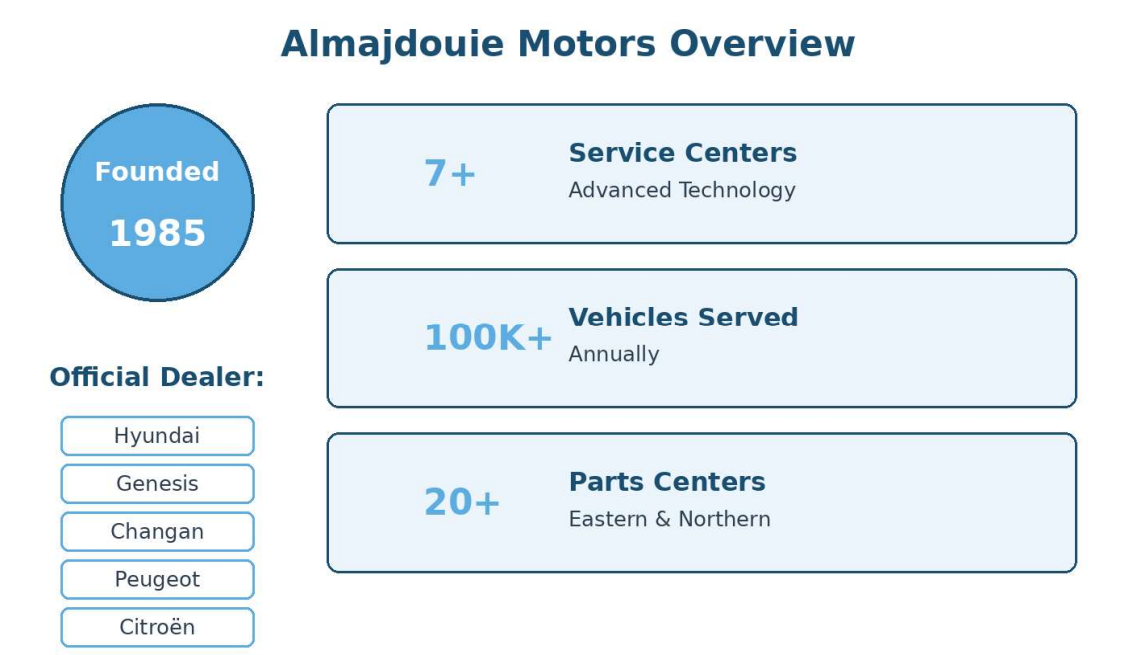
Operational Scale:

- Seven service centers equipped with advanced technology
- Serves over 100,000 vehicles annually
- Twenty spare parts centers across Eastern and Northern regions
- Extensive dealer network throughout Saudi Arabia

Relevance to Study:

The automotive sector generates substantial volumes of operational data, making Almajdouie Motors an ideal case for examining data analytics applications. The company's scale and market position provide access to diverse data sources including sales transactions, customer interactions, inventory management, and service operations.

Figure 2: Almajdouie Motors Company Profile



1.9. Research Methodology

This study will employ a qualitative research methodology centered on secondary data analysis. The methodological approach follows the framework outlined by Sekaran (2006) for conducting business research.

Research Design:

A case study approach will be utilized, focusing on Almajdouie Motors as the unit of analysis. This design allows for in-depth examination of data analytics practices within a specific organizational context.

Data Sources:

- Official company reports and publications
- Industry analyses and market research
- Academic literature on data analytics in automotive sector
- Public information from company websites and press releases

Analytical Framework:

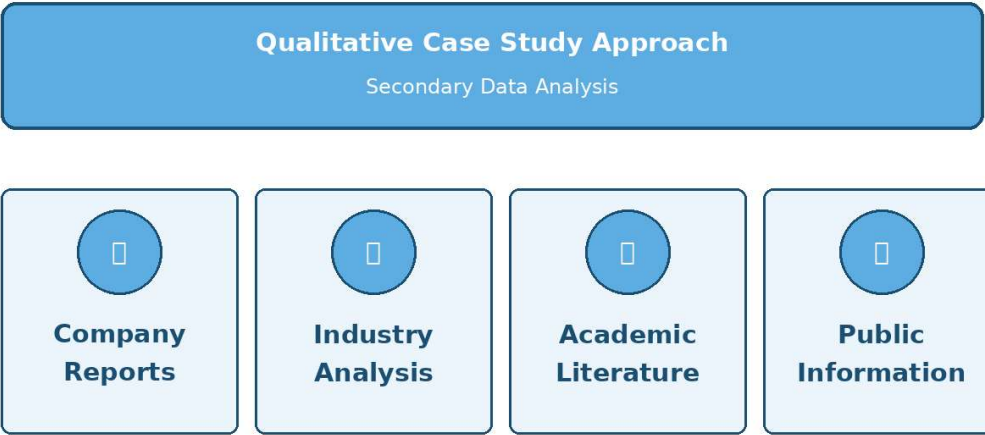
The analysis will examine how data analytics capabilities influence decision-making processes across different organizational functions including sales forecasting, inventory management, customer relationship management, and strategic planning.

Limitations:

As this study relies on secondary data, certain internal operational details may not be accessible. The findings will be based on publicly available information and industry best practices applicable to similar organizations.

Figure 3: Research Methodology Framework

Research Methodology



Based on Sekaran (2006) Framework

Figure 4: Data Analytics Process Flow

Data Analytics Process



Continuous improvement cycle

1.10. Suggested Project Structure

The complete research project will be organized according to the following structure:

Chapter	Content
Chapter 1: Introduction	Research background, problem statement, significance, questions, objectives, hypotheses, research model, methodology, scope, and project structure
Chapter 2: Literature Review	Review of data analytics concepts, business decision-making theories, relationship between variables, and relevant empirical studies
Chapter 3: Case Analysis	Detailed examination of Almajdouie Motors, current data analytics practices, decision-making processes, and organizational context
Chapter 4: Findings & Discussion	Analysis of results, interpretation of findings, comparison with literature, and validation of hypotheses
Chapter 5: Conclusions & Recommendations	Summary of findings, practical recommendations, study limitations, and suggestions for future research
References	Complete list of all sources cited in the research
Appendices	Supporting materials, charts, and supplementary data

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