

# Management Information Systems (Mis), Decision Making and Business Sustainability in Benin City, Edo State, Nigeria

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DOI: <https://doi.org/10.47772/IJRISS.2026.10100550>

Received: 29 January 2026; Accepted: 03 February 2026; Published: 17 February 2026

## ABSTRACT

The study determined the relationship between management information systems, decision making and business sustainability in Edo State. Correlational survey research design was adopted for the study. The sample of the study comprised 120 staff of selected registered business organizations in Benin City. Questionnaire was used as instrument for data collection. The instrument was structured in line with the research questions, using a modified four point rating scale of Strongly Agree, Agree, Strongly Disagree and Disagree. The instrument was validated by three experts and tested for reliability by administering the questionnaire to sixteen respondents then subjected to Cronbach's alpha statistics which yielded a result of 0.78. The instrument was administered personally and electronically by the researcher with the aid of Google form via WhatsApp, which were retrieved on the spot and electronically respectively. Data collected were analyzed using Mean and Standard Deviation, while the null hypotheses were tested using Pearson Product Moment Correlation Coefficient (PPMC). Findings revealed that there was significant relationship between the utilization of management information systems in monitoring business transaction and operation, while decision made based on available information ensured that businesses would grow and remain sustainable in the face of fierce competition. Based on the findings, the study therefore, recommended that every business should prioritize establishing a sustainable and viable management information systems and engage in robust decision-making processes to improve their chances of sustainability in an increasingly competitive business environment.

**Keywords:** Management Information Systems (Mis), Decision Making And Business Sustainability

## INTRODUCTION

Business Education is an aspect of Vocational and Technical Education that prepares individuals for specialized occupation in business field. It is an education which an individual's receives with the primary motive of enabling it's recipients to acquire adequate attitude, knowledge, understanding and skills for vocational usage in careers as administrators, managers, teachers and business organizations. Babalola, Dambe and Omoni (2019), stated that the goal of business education is to produce competent, skillful and dynamic business educators, office administrators, secretaries, business men and women that will effectively compete in the world of work.

The business knowledge, skills and attitude acquired enable business owners (organizations) use relevant information to optimize strategic planning to achieve greater efficiency, effectiveness and adapt to continuous market fluctuation (Stefan, 2022) in order to attain business objectives such as productivity, increase revenue, brand awareness, profitability, sustainable growth rate, market share and customer satisfaction. Hence, every business enterprise needs information whether on a small or large scale to operate in the environment and compete with its competitors. The importance of information cannot be over emphasized as no business organization can successfully compete in this world that has become a global village without adequate, current and accurate information. To this end, most business outfits now have information system in place to help support business processes, operations, strategic planning for competitive advantages. This has led many

organizations to a continuous cycle of investments and implementation of novel components of management information systems (MIS).

Management information systems (MIS) according to Laudon and Laudon (2017) is a computerized database that collects, processes, stores and analyze organizational data to support decision making, planning and control processes. It gathers, organize, summarize and report information about an organization for the benefit of managers, customers and users. In the view of O'Brien and Marakas (2017) MIS uses a combination of hardware and software, data and human resources to provide accurate, timely, relevant information for managers and other stakeholders. One of the major types of information systems is the Decision Support System (DSS) which facilitates decision making process by offering pertinent information, that assist individuals make necessary, intelligent, and informed decisions. Bourgeois and Bourgeois (2019) affirmed that DSS use different decision models to analyze or summarize large pieces of data into an easy-to-use form that makes it easier for managers to compare and analyze information in form of chart and tables.

The role of information systems in business organization cannot be overemphasized, it includes globalization opportunities, operational excellence, new products and services, business models, customer and supplier intimacy, improved decision making, competitive advantage and survival for business organizations. (Laudon & Laudon, 2013). Di Vaio, Palladino, Pezzzi and Kalisz (2021) emphasized the importance of MIS in facilitating decision-making processes by providing relevant data for allocating and utilizing human/material resources within an organization.

Decision-making may be seen as the process of selecting the right and effective course of action from two or more alternatives for the purpose of achieving a desired result. This is the essence of management in dealing with strategic issues. Strategic issues as stated by Laudon and Laudon (2015) encompass various developments, events and trends that can influence an organization's strategy. These issues can potentially present challenges or prospects to individuals responsible for making decisions. Olabode, Sennuga and Adesina (2016) observed that adoption of modern technology and effective communication channel had a positive effect on making informed decisions and businesses can improve their chances of sustainability and growth in an increasingly competitive business environment. Osotimehin and Adeyemo (2016) opined that adopting a strategic approach to decision making involves considering multiple factors such as gathering, analyzing data and aligning decisions with the organization's overall goals. Decisions are only as valid as the information on which they are based, decision making is a factor that promotes business sustainability. Oyewobi (2019) suggested that organizations that adopt effective MIS systems which facilitate decision making process improve their sustainability outcomes.

Business sustainability as stated by International Business Machines (IBM) (2022) is a company's strategy to reduce negative environmental impact resulting from their operations in a particular market. It is an action to eliminate the adverse environmental and social impacts caused by business operations. It ensures that future generation will have adequate resources to meet their needs. Donna (2021) said that being sustainable allows businesses to be competitive in the global market place. A sustainable business recognizes the need for investment in sound procedures and operations that will avoid bigger cost down the road. Certain challenges are associated with the use of MIS and decision making.

Challenges with the utilization of (MIS) include the information itself which is the analysis of collected raw data such as pricing, managerial literacy, cost of maintenance, ineffective, system failure, poor combination of information technology (IT), information distribution, relevance, remote management, computer security (Yekini & Oyeyinka, 2013), while, bounded rationality, escalation of commitment, time constrains, uncertainty, biases and conflict affect decision making (Smith, Babich and Lubrick, 2020).

Despite the relevance of MIS and decision making, some businesses appear to lack sustainability (Bhandari & Singh, 2020). In that, many businesses liquidate or enter into bankruptcy within three to five years of existence. This may be attributed to inability to harness the use of MIS and decision-making. Hence, what is the relationship between MIS, decision making and business sustainability?

## Statement of the Problem

The utilization of management information systems and decision making enable business organizations to have adequate, useful and current information about their business that should result in business sustainability. Despite the provision of data made available by MIS and decision making, it is unfortunate that some business enterprises wind-up and go into extinction within their first five years of existence.

Businesses may thrive when they experience profitability, improved productivity, increase in sales volume, customer satisfaction which aids future plans, finding solutions to emerging problems that guarantees business sustainability, but the reverse appears to be the case whereby many businesses are crumbling considering the current economic situation in Nigeria. What could be responsible?

## Research Questions

The following research questions guided the study.

1. What is the relationship between MIS and business sustainability in organizations in Benin City?
2. What is the relationship between decision making and business sustainability organizations in Benin City?

## Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance;

1. There is no significant relationship between MIS and business sustainability organizations in Benin City.
2. There is no significant relationship between decision making and business sustainability organizations in Benin City.

## METHODOLOGY

The study employed a descriptive correlational research survey design. A correlation survey measures two or more relevant variables and determines the relationship between or among the variables. This design was deemed most suited for this study because the study collected information to explain how the independent variables (Management Information Systems, decision making) correlate with dependent variable (business Sustainability). The study population comprised 120 top management, mid-level management and regular staff of selected registered business organizations in Benin City, Edo State. The population was chosen because they possess comprehensive knowledge regarding utilizing management information systems (MIS) and strategic planning within their business organizations. As presented in table 1.

Table 1:

<b>S/N</b>	<b>Name of Business</b>	<b>Number of Staff</b>
1.	Philips Hallmark Supermarket, Benin City.	23
2.	Market Square Supermarket, Benin City	15
3.	Chicken Republic Fast Food, Benin City.	20
4.	Cream2Go Fast Food, Benin City.	15
5.	Mat Ice Fast Food, Benin City.	10

6. Airen Pharmacy and Supermarket, Benin City.	05
7. Print House, Benin City.	05
8. Vision Alive Printing, Benin City.	05
9. Chukwuemeka Enterprise, Benin City.	01
10. Realmark Multi-Purpose, Benin City.	05
11. IT Fashion Home, Benin City.	05
12. Tinkle and Blink Logistics Limited.	05
13. Wimeco Supermarket, Benin City.	03
14. Uwasley Electrical, Benin City.	03
<b>Total</b>	<b>120</b>

Source: Managers of Business Organization (2023).

No sampling technique was employed as the population was a manageable size. The instrument used for data collection was a structured questionnaire. The questionnaire was titled “Utilization of Management Information Systems Questionnaire” (MISQ). The questionnaire consisted of forty (40) items that were drawn based on two research questions. The instrument was a 4-point modified rating scale ranging from Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1).

The research instrument was subjected to thorough scrutiny by three experts in Business Education and an expert in Measurement and Evaluation. On the basis of their observations, corrections and suggestions, the researcher modified the instrument to suit the work. A pilot test was carried out to determine the reliability of the instrument. The data collected were analyzed using Cronbach’s alpha statistics and an alpha value of 0.78 was obtained. Copies of the questionnaire were administered personally by the researcher and electronically with the aid of Google form via WhatsApp which were retrieved with a 100% return rate. The data collected was analyzed using Mean and Standard Deviation for the research questions while Pearson Product Moment Correlation Coefficient (PPMC) was used to test the hypotheses at 0.05 level of significance.

## **Presentation of Results**

### **Data Analysis for Testing the Hypotheses**

**Hypothesis One:** There is no significant relationship between management information systems and business sustainability.

Table 2: Pearson  $r$  showing the relationship between management information system and business sustainability

Variables	N	$\bar{x}$	SD	r	p-value	Decision
MIS	120	2.84	0.47	0.80	0.01	Significant
Business Sustainability		3.12	0.35			

Table 2 shows the relationship between management information systems and business sustainability. The Table shows mean values of 2.84 and 3.12, as well as standard deviation of 0.47 and 0.35 for management information

systems and business sustainability respectively. The correlation coefficient between management information system and business sustainability is 0.80 which is positive and high. Since the p-value of 0.01 is less than 0.05, hence the null hypothesis was rejected. This therefore connotes that there is a significant relationship between management information systems and business sustainability.

**Hypothesis Two:** There is no significant relationship between decision making and business sustainability.

Table 3: Pearson r showing the relationship between decision making and business sustainability

Variables	N	$\bar{x}$	SD	r	p-value	Decision
Decision Making	120	2.80	0.35	0.17	0.04	Significant
Business Sustainability		3.12	0.35			

The data presented in Table 3 depicts the relationship between decision making and business sustainability. The table shows mean values of 2.80 and 3.12, as well as standard deviation of 0.35 and 0.35 were obtained for decision making and business sustainability respectively. The Table shows that the correlation coefficient between decision making and business sustainability is .17 which is positive and low. Since the p-value of .04 is less than 0.05, hence the null hypothesis was rejected. Consequently, there is a significant relationship between decision making and business sustainability.

## DISCUSSION OF FINDINGS

The findings of hypothesis one depicted that there is a significant relationship between management information systems and business sustainability. This indicated that the use of MIS enhanced business organizations' daily operation by organizing business data into usable form. This finding agrees with that of Akintayo and Adebayo (2020) who affirmed that MIS plays a crucial role in helping organizations to manage complex operations and make informed decisions in a rapidly changing business environment. Oyewobi (2019) also, suggested that organizations that adopt effective MIS system are more likely to improve their sustainability outcomes. Furthermore, Olawole-Isaac and Adeyeye (2021) found that dynamic capabilities, which refer to an organization's ability to adapt and respond to changing circumstances, mediate the relationship between MIS and sustainability performance.

The findings of hypothesis two showed that there is a significant relationship between decision making and business sustainability. This revealed that decision made based on available information ensured that businesses would grow and remain sustainable in the face of fierce competition. This finding aligned with Olabode et al (2016) that making informed decisions, SMEs can improve their chances of sustainability and growth in an increasingly competitive business environment. Osotimehin and Adeyemo (2016) stated that adopting a strategic approach to decision making involves considering multiple factors such as gathering, analyzing data and aligning decisions with the organization's overall goals.

## CONCLUSION

Based on the findings of the study, it was concluded that effective utilization of management information systems and decision making promote business sustainability. In other words, for businesses to experience sustainable growth and development, the usefulness of management information systems and proper decision-making cannot be overemphasized.

## RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made.

1. Business organizations should prioritize establishing sustainable and viable management information systems to experience continuous growth and development of their business.

2. Business organizations should engage in robust decision-making processes to improve their chances of sustainability and growth in an increasingly competitive business environment.

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