

**MANAGEMENT INFORMATION SYSTEMS IN SMALL-SCALE ENTERPRISE****Abraham Etacherure<sup>1</sup> & Justin Shiutya Henkya<sup>2</sup>**

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**Abstract**

*Management information systems (MIS) play a vital role in strengthening the operational efficiency and decision making process in small scale enterprise. Management information systems present an organized channel for data collection, processing and utilization for efficient performance. This conceptual paper examines the concept of management information systems and importance within small-scale business enterprises, synthesizes insight from existing literature, to explain how management information system support customers management, inventory control, financial management, decision making ,strategic planning in spite of limited resources associated with small scale enterprises. The discussion emphasizes that management information systems adoption and effectiveness depend mainly on employees' training, managerial competence access to affordable technology in small -scale enterprises. The study also reveals the significances of management information systems in improving operational efficiency ,decision making , support growth and sustainable development in small- scale enterprise. However, there are some identified challenges facing management information system in small- scale business enterprise which include high cost of implementation, human capital skill gap and technological barriers. The study offers recommendations to guide owners, managers, policy makers towards improved MIS adoption and utilization in small-scale enterprises.*

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**Keywords: Management, Information Systems, Small-Scale Enterprises, Management information system.**

**1. Introduction.**

Management information systems (MIS) emerged as a response to the need for structured, accurate and timely information in decision making within organisations. Large organisations are the first to adopt the use of management information systems in

their operation and activities in order to ease generation of reports and decision-making within the organisation, this is done through the use of computerised systems in automating payroll, accounting and reporting process. Over the years the use of management information systems has been

adopted by large scale enterprises due to its huge benefits (Rahman & Yusuf, 2022). Unlike, large scale enterprises, many SSEs are yet to adopt MIS in their business operations despite its huge benefits in business organization. Management information system has been come a veritable too for business advancement and growth in today's business environment. SSEs inability to adopt MIS creates a gap. Hence, this paper examines nature, importance, roles and challenges facing SSEs in the adoption and implementation of management information systems. The study provides a contextualized explanation of Management information systems and its uses within small -scale enterprises.

## **2. Literature Review.**

### **A. Management Information Systems (MIS).**

Management information system can be defined as an organised system of people, technology and processes that interact to provide timely, relevant and accurate information to managers for to make informed decisions (Rahman & Yusuf, 2022). Meaning MIS is not just a computer-based system, but a socio-technical system integrating data, people and decision processes.

Management information systems refers to an integrated system or framework designed to collect ,process, store and disseminate information that supports decision-making ,coordination and control within an organization modern management

information systems combines human ,technological and procedural elements to ensure the smooth flow of accurate and timely information across all levels of management ( Bac, 2022).

Management information system according to Khalid et al.,(2023) refer to the structured process of collecting, processing, storing and disseminating data to aid decision-making within an organisation. Management information system is a veritable model that provides the techniques of streamlining organisation operations in order to improve efficiency, improve customer relations, and make informed decision that will sustain maintenance of financial control in small -scale enterprise. Considering the high rate of usage and reliance on technology by this present generation, many management information system, has created a huge impact in big organisation, thereby making their operations seamless and convenient. Many small-scale enterprise today, lag in the adoption of MIS in their operations simply due to lack of awareness and as a result of resource constraint ( Ojo & Ibrahim, 2024).

Management information system is crucial in the modern small business organisation as it provides the needed information about different units and operation of the business entity. For the aim of reaching out to customers and other stakeholders as soon as possible, a robust management information system should be

deployed to drive the overall activities in the business.

### **B. Small –Scale Enterprise (SSE).**

Small –Scale Enterprises is generally defined as a business that operates with a limited workforce, small capital and restricted market share often serving local markets. They are characterised by low level of formalisation ,limited access to finance ,and reliance on owner- manager decision-making (Okeke & Chukwu, 2023).

Small scale enterprises (SSEs) are major drivers of every economy and they account for over 80% of employment and over 45% of GDP (SMEDAN & NBS, 2022) which contribute to the gross domestic product and growth of every nation. SSEs have been identified as a critical contributor to economic growth, employment generation and poverty reduction across the globe. They also play a key role in fostering innovation and socio-economic development ( Akinola & Nwachukwu, 2023).

### **C. Characteristics of Small-Scale Enterprises.**

This form of business vary by region but are generally characterised by limited capital, small workforce (often lower than 50 employees) localised operations and informal organisational structure (Okeke & Chukwu, 2023). The implication is their success relies heavily on flexibility, innovation and adaptability, but they also suffer from resource shortages.

### **D. Characteristics of Management Information Systems.**

The following are the key characteristics of management information:

#### **1 .Management Orientation and Need Based Design.**

One of the features of management information systems is management oriented based design gear towards satisfying the information need of managers at different level of management in the enterprise. This design is built from the top-down approach specifically to guide managerial requirement rather than technological capabilities. According to Purohit et al.(2022),management oriented MIS ensures that output such as reports are tailored to decision-making process .This prevents information overload by filtering irrelevant data and delivering insights directly related to managerial functions such as planning, organizing, controlling and forecasting.

#### **2. Timeliness and Relevance of Information.**

Timeliness is vital and fundamental in management information systems. An effective information systems must deliver information when it is most useful for decision –making ( Ariyanto, 2022). Delay in information delivering can lead to poor managerial choices of decision in a fast changing business environments Again relevance is also another critical feature ,for management information systems to be effective, supplied and available information must directly support the problem or decision

at hand. Modern MIS platforms often employ real-time data processing and automated notifications to ensure that decision-makers receive relevant insights promptly. Bac (2022) emphasized that timely and relevant information significantly reduces uncertainty in managerial environments and enhances responsiveness to market dynamics

### 3. Accuracy and Reliability.

The effectiveness of management information system depends widely on accurate and reliable information available to decision makers. Incomplete and misleading information leads to decisions that reduce the overall performance in an organization. Ariyanto (2022) noted that data quality which includes accuracy, consistency and completeness should be validated to maintain high quality output.

### 4. Flexibility and Scalability.

This feature enables MIS to adapt to changes and innovation in the business environment. Flexibility allows the system to incorporate new data sources ,reporting format and performance indicator without a complete redesigning of the system .Scalability ensures that the system capacity and complexity grow as the organization expands.( Thomas Joe, 2023).s management information systems provides resilience needed for environmental changes when it is flexible and scalable features.( Purohit et al., 2022).This adaptability enhances the longevity and relevance of the system ( Rainer & Waston ,2020).

### 5. Integrated System Approach.

One the feature of MIS is that it operates as an integrated system and not a collection of isolated component. it interconnects various organization department such as the marketing, finance. Production and human resource into a unified platform that enhances sharing of data and coordination within the organization (Bac, 2022). This integration ensures that there is an alignment within the organization to make sure decision at one of the subsystem aligns with the corporate objectives. Through the adoption of this integrated system approach, end to end information flow is promoted to reduce duplication of effort and enhances consistency of organizational data.

### 6. Decision Focused Reporting.

Management information system is not just a means of generating raw data,[t focus primarily is to focus on decision which is the output and the exceptional reporting approach which encourages managers to deviate from the routine and focus on the problem areas in order to proffer solution. This feature help to improves efficiency by setting managers mind towards issues that requires action in the organization. Purohit et al (2022) found that systems emphasizing exception reporting contribute significantly to organizational responsiveness and decision speed.

### 7. Quality and Usability of the System.

Ariyanto (2022), identified system performance, response time and ease of use as crucial determinants of user satisfaction. A well designed MIS must provide an

intuitive interface ,fast processing speeds and reliable uptime poorly designed system may lead to user frustration, underutilization or errors in interpretation. Therefore ensuring high system quality enhances the perceived value and continuous use of MIS among managers.

#### 8. Security and control System.

Information security and access control are essential features in MIS especially in cyber threat and data privacy regulations. MIS must include authentication procedures, users access rights encryption and audit trails to safeguard data integrity and confidentiality (Bac, 2022).These control mechanism ensure accountability and compliance with legal and ethical standards.

#### 9. Centralized Data.

Most importantly management information systems involve the establishment of centralized data where every department in the organization draw information. This feature promotes a single version of truth, thereby eliminating inconsistencies and redundancy in the data used. (Bac, 2022).

#### 10. Support for Strategic Alignment and Analytics.

Nowadays MIS extends beyond ordinary reporting function but also involves facilitating strategic alignment and predictive analytics. According to Bac (2022),MIS contributes to aligning operational performance with strategic goals by integrating key performance indicators and enabling data driven planning ( Laudon & Laudon, 2021). This innovation and

transformation from a data processing tool to a strategic partner underscores the evolving role of management information system in the small scale enterprise.

### **E. Significance of Management Information System in Small- Scale Enterprises.**

The adoption of management information system (MIS) in Small – Scale Enterprises (SSEs) is increasingly recognised as a strategic tool for improving efficiency, competitiveness and long-term sustainability. While SSEs often operates under a constraint of capital, skills and infrastructure, MIS provides cost effective ways of overcoming these limitation (Akinola & Nwachuwu, 2023).

#### 1. Enhanced Decision –Making.

MIS enables SSEs owners and managers to access timely and accurate information, improving both operational and strategic decision-making. Data driven decisions reduce reliance on guesswork and intuition, which are common in SSEs (Rahman & Yusuf, 2022).

#### 2. Improved Operational Efficiency.

By automating repetitive task such as payroll, inventory tracking and sales records ,MIS helps SSEs reduce errors, save time and cut costs. This efficiency directly translates into increased productivity (Adekunle & Salami,2024).

#### 3. Financial Control and Accountability.

For SSEs with limited resources ,MIS ensures a better budgeting, accounting and cash flow management .Proper record keeping enhances accountability and helps attract external financing (Okon & Bello, 2022).

#### 4. Strengthened Customer Relationship Management

Management information system provides tools for tracking customer interactions, preferences and feedback. This allows SSEs to build loyalty, improve service delivery and maintain long –term business relationship ( Ifeanyi & Zhang, 2025).

#### 5. Support Business Growth and Sustainability.

MIS creates a foundation for scaling up by providing reliable systems that can handle business expansion. it supports compliance with tax laws reporting standards and digital payment system, thereby promoting long term sustainability ( Nguyen & Bello ,2024).

#### 6. Competitive Advantage.

When an economy is growing digitally, SSEs that adopt MIS, is better positioned to compete with larger organisations .MIS facilitates market intelligence, online visibility and quick response to customer demands ,giving small scale enterprises competitive edge (Ojo & Ibrahim, 2024).

### F. Roles of Management information system in Small-Scale Enterprises.

**There are several roles played by management information systems in small -scale business enterprise. These include:**

1. Decision-making Support. For any business to thrive, managers of the business are expected to take the right decisions at the right time (Kennevan, 1979) therefore, managers should be adequately informed with the necessary information that will aid them in decision making.

Management information systems help to equipped managers with relevant ,timely and data enabling informed decisions in a small scale enterprise For instance, sales analysis, customer data and market trend can guide in making marketing strategies decisions.

2. Efficiency and productivity Improvement.

In modern business operations, the use of technology has taken the centre stage making manual operations obsolete and unpopular in many business enterprise. one of role played by management information system, is adoption of the automated system in most crucial areas of the business . Here are some areas of the small scale enterprise where automation can be done in order to make the operation seamless.

Automation of routine tasks such as payroll, inventory control and record-keeping reduces errors and frees uptime for strategic activities (Oladipo, 2023).

Basically, efficiency and improved productivity is needed for higher profitability and growth in every business entity.

3. Marketing and Customer Relationship management (CRM).

MIS tools such as CRM systems enables customer engagement by tracking preferences ,improving services delivery and boosting customer retention (Ifeanyi & Zhang,2025)

4. Financial Control and Accounting systems.

Computerised accounting systems simplify financial reporting ,ensure compliance and enable real-time monitoring of cash flow (Mensah & Duah, 2024).

5. Strategic Planning System.

The planning system is basically used in the organisations management information system to plan project management process (Eze et al.,2023). This system is very useful as its involves planning all the activities of the organisation ranging operations strategy to others strategies in the future. This also include :setting of goals and how to achieve them, matching organisation skills & competence with available opportunities and monitoring actual

performance with plans in order to make necessary adjustment.

### **G. Challenges of Management Information Systems in Small-Scale Enterprises.**

1. Cost and Resources Constraints.

It is vital to note that management information systems requires significant investment for SSEs operating on thin margins, this cost is often prohibitive ( Okon & bello,2022).

2. Human capital and Skill Gaps.

Most SSEs owners lack formal training in MIS or ICT, while limits their capacity to adopt and utilise systems effectively ( Onuoha,2024).

3. Technological Barriers.

Limited access to internet connectivity and digital infrastructure, especially in rural areas, hinders MIS adoption.( Alawamleh et al.,2021)

4. Cybersecurity Issues.

Small-scale Enterprises (SSEs) are increasingly vulnerable to cyber attacks due to limited awareness and weak security frameworks (Abiola & Chen,2023).

### **3. Methodology.**

This paper adopts a conceptual research method, relying on secondary source of data which include; textbooks, journal articles and reports. The approach highlights theoretical arguments from existing

studies to explain the nature of management information systems and the significance in small scale enterprises. Insight was drawn from scholarly sources to form conceptual understanding of management information system, characteristics roles significance, challenges in small scale enterprises.

#### 4. Discussion.

Management information system supports small scale enterprises in functional areas such as operations, tactical and strategic level of management, the findings shows that MIS facilitate record keeping, customer relationship management. At the tactical level of management, managers use MIS to evaluate performance metric which help them in efficient allocation of resources within the enterprise (Laudon & Laudon). MIS is also seen as a veritable tool for forecasting and strategic planning in small scale enterprises. However, SSEs are faced with financial limitations that affect their ability to access and acquire technology. Inadequate managerial skill and resistance to changes and innovation also slow the adoption of MIS in small scale enterprise.( Mensah & Duah,2024).

Notwithstanding, affordable mobile based platform, cloud based

solution and Artificial intelligence present channel and opportunities for MIS integration in SSEs at lower cost ( Eze et al, ,2023). This means that capacity building, financial and amenities is required for effective MIS utilization in SSEs. For SSEs to fully tap from the huge benefit of MIS there should be capacity building through the training of staff, continuous government and private sector support ,this is to close the gap between the SSEs and large scale enterprise utilization of MIS.

#### 5. Recommendations and conclusion.

##### A. Capacity Building.

Owners and employees should be involved in regular training in ICT and MIS to enhance their digital skills.

##### B. Cybersecurity awareness .

Small –Scale Enterprise should adopt basic cybersecurity practices to safeguard data and build trust in the system.

##### C. Policy Support.

Government should provide tax incentives, subsidies and training programme to encourage management information systems adoption among Small-Scale Enterprises.

##### D. Strategic Investments: SSEs should prioritise gradual adoption, starting with affordable cloud and mobile-based MIS solutions.

**Conclusion.**

Management information system play a crucial role in enhancing the competitive and sustainability of small-scale enterprises. while challenges such as cost, infrastructure and skill gaps persist. the study concludes that decision –making ,operational

efficiency and customer participation will significantly improve , if SSEs owners build capacity through staff training and government also intervene by creating awareness and financial support in form of grants to small -scale enterprise in the adoption and implementation of management information systems.

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