

Exploring the Effects of an Enterprise Resource Planning System on an Organisation's International Sourcing Efforts: A Case Study of Healthy Learners Zambia (an NGO)

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Abstract

In a competitive global market, organisations leverage Enterprise Resource Planning (ERP) systems to integrate operations and optimise international sourcing efforts because of the business operational packages that integrate all organisational activities. However, some organisations have not employed the use of ERP systems, therefore finding it difficult to globally expand and coordinate their business operations. This case study aimed to establish the effects of an ERP system on an organisation's international sourcing within Healthy Learners (HL), Zambia, a scaling non-governmental organisation (NGO). It was used to explore the effects, the correlation and overall influence of an ERP system on an organisation's international sourcing. The study adopted a pragmatism philosophy using a mixed-methods research design. Using Yamane's formula, the quantitative study sample of 50 participants was determined to participate in providing data through a structured questionnaire from a total population of 115 and the qualitative study sample of 10 was selected to participate in the semi-structured interviews using purposive sampling. Quantitative data were analysed using SPSS, while qualitative data underwent thematic analysis. Statistical analysis established that Logistics, Finance/Accounting, and Supply Chain management are the key drivers of international sourcing efficiency. Whereas Customer Relationship and Human Resource Management contribute to a lesser degree. An R-value of 0.781 indicates a substantial correlation, and an R-Squared value of 0.609 demonstrates that these five predictors explain 60.9% of the variance in international sourcing efforts. Lastly, the study concludes that an ERP system comprehensively influences international sourcing by directly enhancing operational efficiency, risk management, financial oversight, communication and regulatory compliance. For growth-stage NGOs, integrating these ERP modules is a strategic necessity for effectively managing the international markets.

Keywords: International Sourcing, ERP Systems, Supply Chain Management, Logistics Management, Non-Governmental Organisation.

Introduction

International sourcing has become increasingly common amongst organisations because of the benefits it offers, including cost reduction, access to specialised skills and resources, increased production capacity and technological advancement. According to Heakal (2024), consumer goods, raw materials, food, and machinery are traded in international markets, enabling countries and organisations to participate in the global economy by

expanding their markets and accessing goods and services that may not be available domestically. Effective communication and information sharing are therefore essential to facilitating such transactions, and Enterprise Resource Planning (ERP) systems can support these processes by integrating information across organisational functions.

Background

According to Heizer et al. (2017), competition is no longer between individual companies but between supply chains, making effective supply chain management an important source of competitive advantage. Heizer et al. (2017) further emphasise that competitive advantage involves creating a system that provides a unique advantage over competitors in an efficient and sustainable manner. Information and communication technologies (ICTs) support organisations in achieving this by facilitating the efficient flow and management of information, while advances in communication and transportation have further enhanced supply-chain connectivity. Slack et al. (2022) notes that one of the key issues in planning and controlling operations is managing the vast amounts of information generated by organisational activities, which often involve multiple business functions. In response to this growing information complexity, Hwang and Min (2015) explain that Enterprise Resource Planning (ERP) has emerged as a major information technology capable of reshaping business practices by integrating information and processes across the enterprise, building on earlier systems such as Material Requirements Planning (MRP).

Slack et al. (2022) define Enterprise Resource Planning (ERP) as a complete enterprise-wide business solution that integrates the various functional areas of an organisation. ERP systems typically incorporate modules supporting functions such as procurement, production and inventory control, distribution, human resources, finance and accounting, and information services. The integration of these modules enables information to be shared across organisational functions without unnecessary duplication. In this sense, ERP functions as an organisation's central nervous system, capturing information from different parts of the business and making it available to other functions that require it (Slack, Brandon-Jones, & Burgess, 2022).

Despite the potential benefits of ERP systems, some organisations remain hesitant to adopt or fully utilise them to improve supply chain operations. Hwang and Min (2015) and Lemonakis et al. (2018) identify several challenges associated with ERP implementation and utilisation, including high implementation costs and long payback periods, lack of user-friendliness, incompatibility between software and hardware versions, poor databases, difficulties in integrating different business units, inadequate ERP performance measures, organisational resistance to change, limited knowledge, and the cost of external expertise. These challenges raise questions about the extent to which ERP systems translate into measurable operational improvements and competitive advantages. Therefore, this study seeks to examine the benefits associated with ERP in an organisation's international sourcing efforts, with particular attention to its effects on operational improvements and competitive advantage.

Statement of the Problem

As organisations increasingly extend their activities beyond domestic markets, effective business systems are required to support the coordination and efficiency of their operations. ERP systems have been widely studied, but existing evidence presents a fragmented picture of their organisational contribution. Tenhiälä and Helkiö (2015) found positive performance effects of ERP in manufacturing and control under dynamic market conditions, while Mkokweza and Phiri (2016) highlighted implementation challenges among organisations in Zambia. Nyoro and Paul (2017) examined ERP implementation in relation to supply chain management performance in the beverage industry, and Kaoma and Kasongo (2021) assessed ERP system performance in the pension industry. Andersson (2022), meanwhile, examined ERP adoption among SMEs. Although these studies demonstrate the relevance of ERP to organisational performance, implementation, adoption and supply chain management, their findings are drawn from different organisational settings and address different dimensions of ERP. Consequently, they provide limited insight into how ERP adoption specifically affects international sourcing activities. The absence of such context-specific evidence creates uncertainty about whether the benefits associated with ERP in other organisational and sectoral settings translate into improved international sourcing.

Despite having operated since 2013 (Healthy Learners, 2023), Healthy Learners Zambia does not have an ERP system. Attempts to adopt systems such as Microsoft Dynamics and Palladium have not progressed beyond the feasibility stage, leaving the organisation reliant on manual processes. This has resulted in challenges in task execution, reporting, access to real-time information and double handling of information, which may become more significant as the organisation expands across countries and regions.

Research Objectives

- i. To identify the effects of an ERP system adoption on an organisation's International Sourcing.
- ii. To establish the correlation between an ERP system and International Sourcing.
- iii. To determine the extent to which an ERP system influences an organisation's international Sourcing.

Research Questions

The research endeavours to answer the following questions:

- What are the effects of an ERP system adoption on an Organisation's International sourcing activities?
- How do the various components of an ERP System relate to an Organisation's International sourcing?
- What is the influence of ERP System on an Organisation's International Sourcing?

Significance of the Study

The decision by organisations to extend their operations beyond domestic markets is often driven by strategic considerations, including supply chain improvement, cost reduction and management of exchange rate risks, operational efficiency, market expansion, product development, and the attraction and retention of global talent (Heizer, Render, & Munson, 2017). An ERP system can assist in monitoring and managing these activities. However, the high costs associated with software acquisition and maintenance, employee training, and system compatibility with business partners may discourage some organisations from adopting ERP systems. This study therefore, examined whether the absence of an ERP system affects international sourcing and the potential for operational improvement at Healthy Learners Zambia. The findings may benefit other scaling NGOs and growth-oriented enterprises intending to source resources globally or expand into international markets.

Theoretical Framework

The two theories adopted for this research are Technology Acceptance Model (TAM) and Information System Success Theory (ISS).

The Information System Success Theory (ISS)

The Information Systems Success (ISS) model was developed by DeLone and McLean (1992) to assess the success of information systems based on dimensions including system quality, information quality, use, user satisfaction, individual impact and organisational impact. The model was later revised to incorporate service quality and broaden the outcome dimension to include net benefits (DeLone & McLean, 2003). The theory is relevant to this study because an ERP system is an information system that can support organisational operations by reducing manual processes, improving task execution and generating benefits for key stakeholders.

The Technology Acceptance Model

The Technology Acceptance Model (TAM) was developed by Davis (1989) and Davis and Warshaw (1992) to explain the acceptance and use of technology within organisations. The model proposes that an individual's behavioural intention and actual use of a technology are influenced by factors such as attitude, perceived usefulness and perceived ease of use (Kaoma & Kasongo, 2021). Granić and Marangunić (2019) demonstrate the continued popularity of TAM in technology acceptance research. In this study, the model helps explain the extent to which an ERP system may be accepted and used by organisational users, particularly based on its perceived usefulness and ease of use (Davis, 1985).

Conceptual Framework

The Conceptual Framework shown below was used to illustrate the relationship between the study variables and guided the examination of how ERP relates to international sourcing.

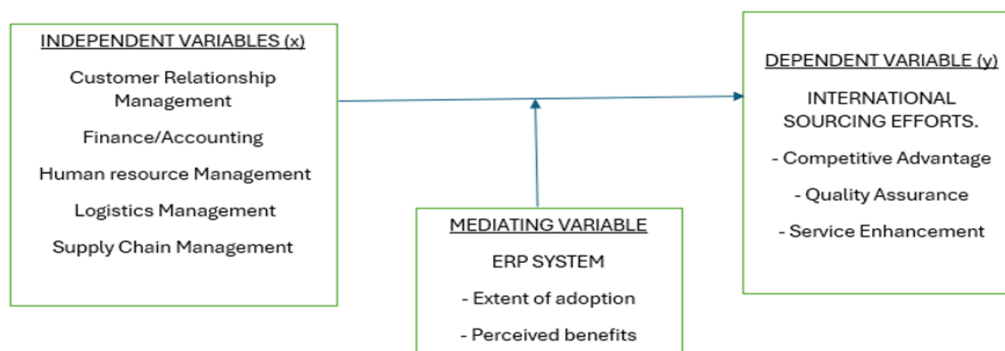


Figure 1: Conceptual Framework

Source: author

The independent variables comprise key functional areas, namely customer relationship management, finance and accounting, human resource management, logistics management, and supply chain management. Their relationship with the organisation's international sourcing efforts is mediated by the ERP system through the extent of its adoption and the perceived benefits derived from its use. International sourcing efforts constitute the dependent variable and are reflected through competitive advantage, quality assurance, and service enhancement.

Hypothesis Testing

The following hypothesis were tested to determine the relationship between an ERP system and an organisation's international sourcing.

General Hypothesis

H₀ There is no significant effect of an ERP system on an organisation's international sourcing efforts.

H₁ There is significant effect of an ERP system on an organisation's international sourcing efforts.

Literature Review

Theoretical Literature Review

The relationship between ERP systems and business performance has been widely investigated, with studies reporting both positive and negative results. Kaoma and Kasongo (2021) note that there is no universally agreed definition of ERP; however, Mkokweza and

Phiri (2016) define it as a technology that provides unified business functions by integrating core organisational processes (Kaoma & Kasongo, 2021). Supporting this view, Zaim et al. (2017) describe ERP as a crucial tool for managing internal and external organisational processes and controlling material and information flows through modules such as supply chain, manufacturing, warehouse management, and quality.

Mkokweza and Phiri (2016), in a comparative examination of ERP adoption at Zambia's largest power utility organisation, found that ERP improved efficiency, time management and accountability. Similarly, the automation of business processes at a mobile telecommunications company made work easier and faster for users. Studies by Zaim et al. (2017) across various organisations further show that ERP can improve the management of information flows and facilitate faster operations compared with pre-ERP processes. For example, Autodesk, a computer-aided software company, reduced its order fulfilment time from two weeks to 24 hours, with 98% of orders being processed within that period following ERP implementation. This demonstrates how ERP implementation can contribute to digital transformation, which involves not only the adoption of new technologies but also changes in key business elements, including strategy, business processes, organisational structures and culture (Vukšić, Ivančić, & Vugec, 2018).

ERP systems evolved from earlier efforts to integrate organisational functions that traditionally operated independently as functional silos. Initially developed for capital-intensive industries, their evolution began with the introduction of centralised computing systems in the 1960s, when organisations primarily automated inventory control through inventory control packages (Costa et al., 2016; Abdullah & Ambedkar, 2017). This was followed by Material Requirements Planning (MRP) systems in the 1970s, which focused on planning product and component requirements based on master production schedules. In the 1980s, Manufacturing Resource Planning (MRP II) expanded this approach by integrating material planning with other functions, including shop-floor and distribution management, project management, finance, human resources and engineering.

By the late 1980s and early 1990s, ERP emerged as the next stage of this evolution, providing enterprise-wide integration across functions such as manufacturing, distribution, accounting, finance, human resource management, inventory management, service and transportation (Abdullah & Ambedkar, 2017). During the 1990s, ERP systems were further expanded through additional modules and functions, resulting in extended ERP systems that incorporated capabilities such as advanced planning and scheduling, customer relationship management and supply chain management (Abdullah & Ambedkar, 2017).

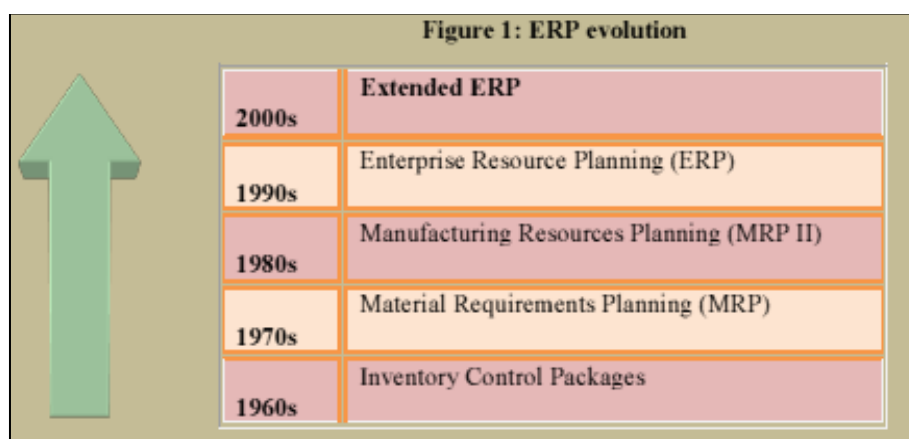


Figure 2: ERP Evolution

Source: (Abdullah & Ambedkar, 2017)

International Sourcing

According to Birou and Fawcett (2006), as cited in Lysons and Farrington (2020), international sourcing initially emerged as a reactive approach to reducing production costs and neutralising the threat of foreign competition. However, leading firms have increasingly adopted it as a proactive strategy for pursuing sustainable competitive advantage. Lysons and Farrington (2020) identify benefits associated with international sourcing, including competitive advantage, quality assurance and service enhancement, alongside challenges relating to logistics, regulations, cultural differences and country uncertainty. Similarly, Leamer and Storper (2017) argue that, despite significant improvements in transaction and communication technologies, geographical proximity continues to play an important role due to the importance of interactions. These benefits and challenges are important considerations for organisations expanding into international markets and may influence the role of ERP systems in supporting their international sourcing activities.

Customer Relationship Management (CRM)

Lysons and Farrington (2020) indicate that Customer Relationship Management (CRM) involves understanding customers' needs and behaviour and integrating sales, marketing and service strategies. CRM software enables organisations to manage customer relationships by tracking customer interactions and works in tandem with Customer Service Management (CSM).

Finance and Accounting

Financial reporting involves communicating an organisation's financial information to external stakeholders, including shareholders, creditors, government agencies, and the public (Faculty of Administration, Bingham University, 2022). Financial management is important for ensuring efficient financial flows within supply chain activities. Fathollah and

Zargar (2019) emphasise that weak interactions among institutions and challenges faced by small businesses can hinder synergy in the economy, production, and commerce. To address these challenges, Financial Supply Chain Management (FSCM) was developed to reduce inefficiencies in financial flows across the supply chain by integrating financial, engineering, and management approaches. It facilitates the management of cash, inventory, and working capital throughout the supply chain through various supply chain finance (SCF) tools and techniques (Fathollah & Zargar, 2019).

Human Resources Management (HRM)

According to Heizer et al. (2017), good human resource strategies are expensive, difficult to develop, and challenging to sustain. However, many organisations have demonstrated that sustainable competitive advantage can be achieved through effective human resource strategies. Supporting this view, Lysons and Farrington (2020) describe HRM as an area concerned with designing job descriptions, filling positions, recognising and compensating employees, and directing career paths.

Logistics Management

Lysons and Farrington (2020) explain that logistics management facilitates the efficient flow and positioning of goods, materials, information, and other resources within an enterprise. They define logistics as the management of key supply chain functions, including procurement, production, and distribution. Procurement involves purchasing and product development, while production includes manufacturing and assembly. Distribution encompasses warehousing, inventory, transportation, and delivery. Logistics management is divided into Materials Management (MM), which concerns material flows to and from production, and Physical Distribution Management (PDM), which focuses on the flow of goods from order receipt to customer delivery (Lysons & Farrington, 2020).

Supply Chain Management (SCM)

Supply Chain Management (SCM) involves coordinating activities from the acquisition of raw materials to the delivery of products or services to the final customer (Heizer et al., 2017). It encompasses suppliers, manufacturers, service providers, distributors, wholesalers, and retailers, with the objective of maximising competitive advantage and benefits to the ultimate consumer (Heizer, Render, & Munson, 2017). Thus, coordination of these interconnected activities requires timely and integrated information, hence the importance of an ERP in supply chain management.

Competitive Advantage

Building a strong brand requires organisations to differentiate themselves from competitors and develop sustainable competitive advantages. Competitive advantage refers to a company's ability to perform in ways that competitors cannot or will not match (Heizer et al., 2017). However, few competitive advantages are inherently sustainable;

organisations must continuously develop new advantages that can serve as points of difference. Competitive advantage may also arise from distinctive capabilities and excellence in broader business processes (Heizer, Render, & Munson, 2017). Therefore, organisations engaged in international sourcing need to continuously strengthen their competitive edge to remain sustainable in their operations.

Quality Assurance

Quality assurance refers to planned and systematic activities implemented within a quality system to provide confidence that an entity will fulfil quality requirements (Lysons & Farrington, 2020). To mean that it focuses on defects prevention.

Empirical Literature Review

Although ERP systems have been implemented since the mid-1990s, academic research in this area is relatively recent. Functionally, ERP systems support the management and administration of resource deployment within single or multi-site organisations. Akkermans et al. (2001) reported that global ERP package sales and implementation support were expected to exceed US\$20 billion, with annual growth rates of over 30% in the 21st century. They further noted that SAP's R/3 was used by seven of the top ten global pharmaceutical and petroleum companies, nine of the top ten global computer companies, and all ten leading global chemical companies.

ERP in Europe

Studies of ERP adoption in Europe indicate that implementation is influenced by differences in national, organisational, and operational contexts. Drawing on Van Everdingen et al. (2000), Kaoma and Kasongo (2021) found significant differences among European countries in ERP selection criteria, including support, scalability, user-friendliness, cost, flexibility, and organisational fit, demonstrating that the European midsize business market is not homogeneous. Similarly, Hawking (2007) found that ERP implementation in a pharmaceutical company operating in the United Kingdom and Scandinavia required consideration of different legislative requirements, although no significant cultural differences were identified. Further research drawing on Hofstede's (1983) model suggests that national culture can influence ERP adoption, with more innovation-oriented cultures being more receptive to ERP systems. These findings suggest that organisations considering international expansion should account for differences in organisational requirements, legislation, and national culture when adopting ERP systems.

ERP in Asia

Comparative evidence from Asia indicates that ERP implementation success is influenced by organisational, system, and user-related factors. Dezdar (2017), in a comparative study of Iran and China, identified top management support, project management,

organisational culture, user education and training, user involvement and characteristics, software suitability, information quality, system quality, and vendor quality as important factors influencing ERP implementation success. Understanding these factors benefits both implementing organisations and ERP vendors and provides a basis for selecting appropriate ERP systems. This aligns with the Information Systems Success (ISS) theory, which links net organisational benefits to information quality and user satisfaction. Similarly, Hawking (2007) examined the applicability of Western-designed ERP systems in China and reported that SAP accounted for approximately 33% of the Chinese ERP market, despite challenges arising from differences in Western and Eastern naming formats. Comparisons of locally and foreign-developed ERP systems in Taiwan further indicated higher user satisfaction with local systems, reflecting the importance of user preferences in ERP adoption, consistent with the Technology Acceptance Model (TAM).

Therefore, management should train adequately before ERP implementation to assess employee readiness and determine whether a locally developed or imported system is more appropriate.

ERP in North America

A hybrid approach adopted by Marbert et al. (2000) revealed that ERP systems were widely used, both planned and actual, across the U.S. manufacturing sector, including large and small firms. Similarly, Akkermans et al. (2001) reported that American companies spent \$670 billion on logistics and supply chain-related activities in 1993, reflecting the significant changes in supply chain management associated with the emergence of the network economy. Under this economy, markets have become more transparent, customer demands more customised, and business environments increasingly dynamic. Information technology (IT) investments and resources support these changes through infrastructure, transactional, informational, and strategic assets (Yoshikuni et al., 2023). These IT-enabled capabilities facilitate logistics and supply chain activities and, although the studies focus on the manufacturing sector, their benefits may also extend to organisations pursuing international expansion.

Ruano et al. (2022) argue that the Sustainable Development Goals and the 2030 Agenda present Latin American countries with opportunities to pursue economic, social, and environmental sustainability. In the context of globalised markets, businesses are encouraged to differentiate themselves through available resources, including information technologies (IT), which can optimise and improve production processes. Given weaknesses in information management, the adoption of ERP systems is recommended for Latin American SMEs, with appropriate control measures supported by the ISS theory. Thus, ERP systems provide modular solutions whose implementation costs and duration depend on the modules adopted and can be tailored to incorporate additional functions. By integrating business processes into a single application, ERP facilitates the evaluation, control, and management of organisational activities (Ruano et al., 2022)

Therefore, the challenge for Latin American SMEs is securing sufficient funding to meet the costs of implementing and tailoring ERP functions as their needs evolve.

ERP in Australia

Implementing an ERP system can strengthen accounting practices and improve SME survival; however, Australian SMEs may face significant barriers to adoption. Venkatraman and Fahd (2016), in a study of a fast-growing Australian private courier company, found that resistance to ERP adoption persisted despite vendors repackaging ERP systems as cloud-based solutions for SMEs. Key barriers included limited financial resources, inadequate or underfunded training, lack of internal expertise, limited consensus among senior management, inaccurate reports, resistance to change, and poor alignment between the ERP system and business processes (Venkatraman & Fahd, 2016).

It can therefore be concluded that SMEs lack sufficient awareness and financial resources to realise the benefits of ERP systems, highlighting a gap that needs to be addressed.

ERP in an Africa Perspective

ERP research has largely focused on developed countries, although developing countries are increasingly adopting these systems. Dezdar (2017) notes that the distinct challenges in the developing countries require greater attention to ERP implementation, particularly given their significant potential as an emerging ERP market.

ERP in North Africa

Akeel & Wynn, (2015) analysed the implementation of a SAP ERP R/3 within a Libyan Oil company and defining a good implementation strategy was critical for the success. The commitment by senior management and the user's involvement in the project positively impacted the success. A framework for ERP implementation evaluation in a developing context was defined, and it consists of six steps namely: *identify top level business processes; develop systems portfolio map; allocate IS to process/sub-process areas and undertake RAG analysis; assess IS function against Nolan's model; apply Zuboff's model at process level; and apply McFarlan-Peppard*. With this framework it was possible to trace the deployment in each context and thus assess the implementation process (Akeel, Wynn, & Zhang, 2013; Akeel & Wynn, 2015). However, it was concluded in Tobie, et al. (2016) studies that African organisations seem to be more attracted to buy an ERP system rather than adopt an open-source ERP. This is because SaaS ERP systems are believed to be less expensive with a lot of time saving (Tobie, Etoundi, & Zoa, 2016).

Bajolle (2024), in a longitudinal case study of a logistics service provider, examined cultural alignment during ERP deployment across subsidiaries in France, Italy, Tunisia, and Morocco. The study identified four key steps: requirement analysis, ERP selection, cultural misfit resolution, and user testing, all influenced by technical, operational, and organisational constraints. It further highlighted the need to address country-specific

requirements, such as the use of three-decimal currencies in Tunisia and Morocco, which differs from the two-decimal convention used in most countries (Bajolle, 2024).

This currency issue highlights the need for flexibility within standardised ERP modules to reduce cultural misfit in multinational organisations.

ERP in West Africa

Ghana's growing banking and telecommunications sectors have contributed to a vibrant ICT environment; however, corruption, poor data culture, and weak organisational controls remain challenges to business operations in Sub-Saharan Africa. Asamoah et al. (2015) and Asamoah and Andoh-Baidoo (2016) argue that these contextual factors create unique conditions for ERP adoption and implementation that must be managed to achieve effective Business Process Outsourcing (BPO).

Tobie, et al. (2016) studies on Nigeria, also reported that *performance and effort expectancies, facilitating conditions and attitudes toward the system significantly* impact the end-user acceptance. This is because it can contribute to avoid user reluctance and hence understanding these factors and how they impact on users might enhance the knowledge for successful ERP implementation. It is challenges such as these that discourage some organisations from conducting operations on the international market.

ERP in East Africa

In East Africa, Studies in Kenya indicate that ERP adoption can reduce costs by minimising unplanned ordering while improving production, operational efficiency, and employee motivation (Nyoro & Paul, 2017). Similarly, Kavale and Mjomba (2015) found ERP systems to be an important investment for organisations seeking to remain competitive.

Tobie, et al. (2016) also studied an Ethiopian medium-sized organization that experimented with the implementation of a Microsoft ERP. Defining a good project team, identifying and managing risks were critical to success. Tobie, et al. (2016) used Samuel, et al. (2013) theoretical framework which includes five categories namely *National Context, Organisational Context, ERP system Context, External Expertise Context, and ERP Success*. This framework helped to identify and range 14 CSF for the success of the implementation in Ethiopia. Based on the findings, the factors are *Perceived Benefits, Training and Education, User Involvement, BPR, User Satisfaction, Team Composition, System Quality, Communication, Infrastructure, Change Management, Legacy System, Top Management, External expertise, Project Management* (Tobie, Etoundi, & Zoa, 2016). Therefore, both studies highlight that with a good system in place, an organization can improve its competitive edge.

ERP in Southern Africa Development Community

Studies in South Africa indicate that ERP systems support functions such as manufacturing, logistics, distribution, inventory, shipping, invoicing, and accounting (Kaoma & Kasongo, 2021). However, ERP adoption in the region is constrained by limited ICT skills, low

investment in research and development, inadequate research capacity, high telecommunications costs, and limited connectivity in marginalised communities (Bitsini, 2015). Further studies found that job impact and perceived system value can negatively influence ERP adoption among SMEs, while research in South Africa and Zimbabwe highlighted the need for effective risk management in ERP implementation (Tobie et al., 2016). These findings underscore the importance of management support and ICT skills development in improving ERP adoption across developing economies.

ERP in Zambia

In Zambia, Mkokweza and Phiri (2016) found that ERP systems integrate various modules, making it easier for different organisational divisions to perform their functions efficiently and complete tasks within the required timeframe. Similarly, Kaoma and Kasongo (2021) found that ERP system utilisation remains limited to a few large, commercially oriented parastatals that have adopted information systems to improve efficiency and effectiveness. This limited adoption is attributed to the capital-intensive nature of ERP projects and the challenges organisations face regarding the modules deployed, their level of integration with existing systems, and collaboration among business units.

Cloud-based ERP

In an increasingly digitised world, cloud computing enables network access to a wide range of information technology resources, including servers, storage, applications, and services (Sørheller et al., 2018). Elmonem et al. (2016) define cloud computing as a computing environment that provides scalable, flexible, and readily available computing resources at different levels of abstraction and relatively low operating costs. These resources are delivered over the Internet through three main models: Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS). Cloud-based ERP solutions are primarily delivered through the SaaS model and are characterised by the features of cloud computing (Elmonem et al., 2016).

Further, Elmonem et al. (2016) note that cloud ERP solutions enable organisations of all sizes to support and coordinate key business processes through virtualisation. However, their implementation presents several concerns, including functionality fit, integration, data migration, organisational change, data security, and reliability. AI has also become increasingly important in digital transformation, with applications such as chatbots and AI apps supporting routine tasks and a wide range of job functions (Elmonem et al., 2016; Yathiraju, 2022). Mhaskey (2024) further notes that organisations are increasingly integrating AI capabilities into ERP systems to enhance functionality, efficiency, and intelligence. Businesses adopting AI-driven ERP solutions have experienced over a 30% increase in user satisfaction and a 25% boost in productivity due to enhanced personalisation of interfaces (Mhaskey, 2024).

These are benefits that scaling organisations would eventually benefit from as they invest more in their technology-based operations.

Emerging Issues

The literature on Internet-era business models is expanding rapidly (Akkermans et al., 2001). Fine (1998), cited in Akkermans et al. (2001), argues that as business environments change, supply chain design is becoming a core competitive advantage. At the same time, ERP has evolved from MRP and MRP II systems into a *de facto* industry standard (Akkermans et al., 2001).

Two considerations to highlight, firstly, from a managerial decision-making perspective, the two trends are quite closely linked. ERP is a comprehensive transaction management system and could potentially enhance transparency across the supply chain (SCM) by eliminating information distortions and increasing information velocity by reducing information delays. Secondly, the reason why the simultaneous rise in the focus on ERP and SCM is so interesting is that academics appear to be far less interested in ERP than they are in SCM.

The other lesson that can be learned is that the principal benefits that can arise from ERP systems are linked to expected gains in the innovation and effectiveness of business processes that come about with the availability of more accurate and timely information. Management control as well as operational control and cultural misalignment amongst the business entities can be improved by making sure that all relevant data are available to (the predetermined) user groups and this can improve the speed of decision-making and facilitate communication between relevant users. This will in turn make organisations continue investing in their ERP based infrastructure making them benefit from AI advancements.

Knowledge Gap

All these studies have been done in various organisations, but none have been done in the Not-for-Profit making organisation or any scaling organisation like Healthy Learners that has ten years of service. Healthy Kids Brighter Future (dba) Healthy Learners is a non-governmental organisation (NGO) that is currently operating in Zambia. In trying to carry out their expansion in Zambia and other African countries (in Central and Southern Africa), the NGO is trying to implement an ERP system to have easy and timely access to information and scaling management.

Research Methodology

The study adopted a pragmatic philosophy utilizing a mixed-methods approach to establish how the effects of an ERP system can have on an organisation's international sourcing. A pragmatic approach was used as it arises out of actions, situations and consequences rather than antecedent conditions and focuses on what works and solutions to problems (Creswell & Creswell, 2018). A survey research strategy was used which employed a mixed-methods

and exploratory research design collecting data from semi-structured interviews and questionnaires.

The study was conducted as a case of Healthy Learners (HL) Zambia, an NGO with head offices in Lusaka targeting a population of 115 employees. For quantitative, data quota sampling was used to select a sample size of 50 respondents using Yamene's formula at 10% margin of error because of the minimal total population of 115 employees therefore the recommended margin of error of 5% would have resulted in a large sample that would not make it realistic for data collection due to time constraints. For qualitative data, purposive sampling was used to select 10 respondents. Quantitative data was analysed using SPSS, while qualitative data was analysed thematically.

Ethical considerations included obtaining consent, ensuring confidentiality and anonymity and upholding participants' right to withdraw from the study at any point.

Research Findings

Introduction

Data was collected from a total of 60 participants i.e. 50 provided responses using a questionnaire and 10 participated in semi-structured interviews. This section consists of the various types of findings based on the collected data. It starts by presenting the background characteristics, which will be followed by findings according to the objectives, thereafter the conclusion.

Response Rate

Table 1 – Respondents department

Department Group	Frequency	Percent
Administration and Supply Chain Related	13	26.0
Construction Related	4	8.0
Finance and Accounting	3	6.0
Human Resources	2	4.0
Logistics and Fleet Management	2	4.0
Monitoring and Evaluation (M&E)	2	4.0
Marketing and Advocacy	3	6.0
Program Related	16	32.0
Research and Technical Assistance	5	10.0
Total	50	100.0

Source: (Field study; 2025)

The demographic analysis reveals a diverse workforce within the organization, with a significant representation from various departments. Notably, the largest group comprises Program Related staff, accounting for 32% of the respondents. This suggests that program implementation and oversight are central to HL's being an NGO because of most NGOs nature of operations. This aligns with findings from previous studies that emphasize the importance of program management in achieving organizational goals (Gee, Nahm, Yu, &

Cannella Jr., 2022) i.e the School Health Program. Administration and Supply Chain Related staff follow closely at 26%, indicating a strong operational support structure that is essential for logistical coordination and efficient program delivery. Smaller representations in departments such as Finance and Accounting (6%) and Construction Related (8%) reflect specialized functions that, while critical, do not dominate the organizational landscape (Fathollah & Zargar, 2019). This distribution underscores the organization's focus on the School Health program delivery, which is supported by a robust administrative and supply chain framework, consistent with previous research highlighting the need for integrated operational support in non-profit organizations (Ataseven, Nair, & Ferguson, 2020) and various organisations interaction. (Dezdar, 2017)

Objective i: The Effects of an ERP system adoption on an Organisation's International sourcing

Table 2: Customer Relationship Management

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
The Organisation's current system has an accurate demand prediction making it easy for them to know past and present needs.	5	13	20	7	5	3.34	1.14
The Organisation has a system for tracking supplier performance effectively.	4	11	19	11	5	3.34	1.14
The Organisation has a way of tracking optimal inventory levels and supply lead times.	9	16	12	12	1	3.54	1.13
The Organisation has a streamlined order processing and tracking system especially for Internationally sourced goods.	6	9	22	9	4	3.38	1.14
The Organisation's current system mitigates quality and order delays in a timely manner.	2	10	17	18	3	2.76	1.22
The Organisation does not encounter supply disruption.	1	7	11	20	11	1.92	1.34

Source: (Field study;2025)

Table 3: Finance and Accounting

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
The Organisation's current system keeps records for carrying out their cost analysis as well as duty drawback.	9	16	16	8	1	3.54	1.05
The Organisation's accounting system hedges against currency fluctuations, minimising financial risk when trading Internationally.	6	15	25	4	0	3.54	0.97
The Organisation's financial reporting and compliance is always accurate making the organisation tax compliant.	20	14	12	2	2	4.16	0.83
The Organisation captures the inventory value of all goods inclusive of currency fluctuations and landed costs.	9	15	17	7	2	3.54	1.04
The Organisation effectively tracks the financial performance of the suppliers, including payment history and creditworthiness.	7	12	17	11	3	3.24	1.09

Source: (Field study; 2025)

Table 4: Human Resource Management

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
The Organisation is able to have progress reports for all Talent and skills acquired in realtime.	6	14	19	8	3	3.46	1.05
The Organisation has a system of identifying employee programs and skills gap in need of development.	6	12	20	10	2	3.38	1.03
The Organisation has a system that tracks wages, working hours as well as health and safety standards.	8	12	17	10	3	3.46	1.05
The Organisation has a system that manages employee compensation and benefit packages for International and rural based assignments.	10	21	14	5	0	4.06	0.76
The Organisation's current system leverages communication and knowledge sharing amongst human capital in different locations.	9	18	16	7	0	3.86	0.78

Source: (Field study;2025)

Table 5: Logistics Management

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
The Organisation has an effective way of handling Route optimization and Customs clearance.	10	20	10	9	1	3.66	0.91
The Organisation is able to effectively track its Last mile deliveries.	15	15	13	6	1	4.04	0.83
The Organisation's current system is able to monitor the status of orders and potential delays if sourced internationally.	7	14	17	12	0	3.42	0.84
The Organisation has realtime transportation cost analysis that can help achieve savings on carrier and fuel charges as well as route optimization.	7	13	16	13	1	3.38	0.93
The Organisation provides customers with real-time order tracking and delivery updates leading to employee satisfaction.	4	12	17	15	2	2.92	1.12

Source: (Field study;2025)

Table 6: Supply Chain Management

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
The Organisation's current collaborative platform helps it have streamlined order placement and issue resolution system.	4	10	23	11	2	3.14	0.98
The Organisation's current practices can help it employ any/all of the following Global Sourcing strategies i.e near-shoring, offshoring and outsourcing.	4	6	26	10	4	2.92	1.04
The Organisation's current practices can effectively forecast demand for internationally sourced products.	4	14	22	9	1	3.14	0.90
The Organisation's current practices have full end-to-end visibility from the raw material sourcing to final delivery for internationally sourced products.	3	12	20	12	3	2.96	0.94

Source: (Field study;2025)

- Customer Relationship Management – data indicates that majority of the respondents slightly agreeing to the organisation tracking demand predictions, supplier performance inventory and order processing but not order quality and supply disruptions.
- Finance and Accounting - data indicates that majority of the respondents slightly agree to the organisation's accounting system keeping proper records, hedges against currency fluctuations and is compliant with taxes and inventory value monitoring.
- Human Resource Management- data indicates that majority of the respondents slightly agree to the organisation's HRM having information on the employee skills gaps, wages and wellbeing.
- Logistics Management - data indicates that majority of the respondents slightly agreeing to the organisation system tracking route optimization and last mile deliveries except for real-time order tracking.
- Supply Chain Management- data indicates that majority of the respondents slightly agreeing to the organisation order placement and demand forecasting but not sourcing raw materials internationally.

Qualitative Themes

Theme 1 – Streamlined Order Processing; the implementation of ERP system perceived as a potential solution to streamline order processing, particularly in managing urgent orders that complicate sourcing efforts.

Theme 2 – Improved Transparency and Accountability; there is a strong belief that an ERP system can provide a clearer audit trail and better tracking of orders, therefore maintaining trust and reliability.

Objective ii: Correlation between an ERP system and international sourcing

Spend Analysis

Table 7: Spend Analysis

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
The organisation has enough funds to run an ERP system.	18	15	12	3	1	4.36	0.83
The annual amount spent on foreign purchases is lessened using an ERP system.	5	14	22	8	1	3.14	0.93
The frequent license renewal will not have any impact on the budget.	5	12	20	10	2	2.92	1.00
The organisation sets aside money for training of employees on any system changes.	9	18	13	7	3	3.34	0.97

Source: (Field study;2025)

Sourcing

Table 8: Sourcing

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
Sourcing is done seamlessly using the ERP platform.	9	11	20	5	5	3.36	1.05
The organisation easily benefits from the vast Supply pool on the International Market.	6	12	24	6	2	3.16	0.94
ERP provides benefits for strategic procurements.	14	18	14	2	2	3.74	0.83
It is easy to maintain relationships with Suppliers using the online platform.	11	20	15	3	1	3.68	0.81

Source: (Field study;2025)

Contract Management

Table 9: Contract Management

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
Supplier relationship management is a challenge with International sourcing.	5	10	21	11	3	3.16	1.02
The ERP makes it easier to keep track of all transactions conducted.	17	19	11	1	2	4.26	0.83
The ERP makes it easier to keep track of Suppliers engaged.	20	17	12	0	1	4.46	0.68
Renewal of agreements is easier using an ERP tracking system.	15	15	18	1	1	3.84	0.82

Source: (Field study;2025)

Supplier Management

Table 10: Supplier Management

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
ERP system maintains a History of suppliers engaged.	21	17	8	2	2	4.34	0.78
ERP can be disadvantageous for supplier records due to saving of all transactions including once-off transactions.	3	4	21	14	8	2.68	1.09
Reverse logistics is faster using the online platform.	9	9	27	3	1	3.34	0.98
Supplier on-boarding is time consuming on the ERP system.	7	4	17	13	9	2.82	1.13

Source: (Field study;2025)

- Spend Analysis- data indicates that majority of the respondents slightly agreeing to the organisation having enough funds to employ an ERP system as well as train employees.
- Sourcing- data indicates that majority of the respondents agreeing to the organisation benefiting from ERP use and international sourcing.
- Contract Management - data indicates that majority of the respondents agreeing to the organisation having challenges with relationship management on ERP but agree to it being able to track all supplier performances better.
- Supplier Management- data indicates that majority of the respondents agreeing to the organisation benefiting from ERP in relation to supplier management.

Qualitative Themes

Theme 1: Supplier Performance tracking; the respondents strongly feel that an introduction of an ERP system could significantly enhance the tracking of key performance indicators (KPIs) of suppliers.

Theme 2: Communication and Relationship Management; an ERP system can streamline communication channels by providing a centralized platform for order management and updates.

Theme 3: Risk Mitigation and Supply Chain Disruption; an ERP system can provide the necessary tools to manage these risks more effectively due to real-time data on pricing trends, inventory levels and supplier performance.

Objective iii: Influence of ERP system on Organisation international sourcing

Supplier Selection

Table 11: Supplier Selection

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
ERP vendor selection provides lesser errors in comparison to manual.	16	16	16	1	1	4.16	0.73
The Supplier database makes it easy when carrying out closed tenders.	18	16	13	2	1	4.16	0.77
Historical data under the ERP system helps in categorizing suppliers based on spend or product.	16	20	12	1	1	4.16	0.73
The Supplier selection processing time is reduced using an ERP system.	19	16	13	1	1	4.26	0.68

Source: (Field study;2025)

Quality Control

Table 12: Quality Control

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
QA/QC poses a bit of a challenge when sourcing globally.	9	13	25	2	1	3.36	0.93
ERP systems are regularly updated in order to stay up to date with technological and market changes.	16	13	18	2	1	3.74	0.83
Should the ERP system have flexibility to constantly monitor what can be maintained or removed.	16	21	10	1	2	3.84	0.87
Is it beneficial for a consultant to be frequently engaged.	7	17	18	5	2	3.42	0.98

Source: (Field study;2025)

Distribution

Table 13: Distribution

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
ERP system makes it easy to track your supply chain.	15	23	10	0	2	4.06	0.83
To be effective, the ERP system should be able to link the organisation's customs data in order to reduce clearance time and processes.	14	19	14	1	2	4.00	0.83
Having Container RFID as part of the templates on the ERP system streamlines the process.	9	13	25	2	1	3.34	0.98

Source: (Field study;2025)

Regulatory compliance

Table 14: Regulatory Compliance

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
When employing an ERP system, different International regulations are considered.	13	13	18	4	1	3.62	0.82
It is important for the ERP system to be connected to Government Tax compliance network.	13	17	16	2	2	3.70	0.84
Regular audit of the ERP should be conducted.	17	19	11	1	2	3.84	0.81

Source: (Field study;2025)

Information flow

Table 15: Information Flow

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
Information monitoring for changes on the global market is easier with an ERP system.	14	14	17	5	0	3.76	0.66
ERP systems enhance electronic data interchange with business partners.	14	18	16	1	1	3.74	0.77
ERP systems assist organisations to have clear audit trails.	15	23	10	1	1	3.84	0.73
Warehouse Management System is very effective using an ERP system.	18	19	10	2	1	4.00	0.68
ERP system makes EDI possible with international clients.	12	19	16	3	0	3.66	0.70

Source: (Field study;2025)

- Supplier Selection data indicates that majority of the respondents agreeing to the organisation vendor selection and maintenance being better using ERP.
- Quality Control data indicates that majority of the respondents agreeing to the organisation facing Quality control issues on ERP and hence agree to frequent ERP updating.
- Distribution data indicates that majority of the respondents agreeing to the distribution management being better using an ERP system.
- Regulatory Compliance data indicates that majority of the respondents agreeing to the organisation ensuring all regulations are followed as they employ an ERP system.
- Information flow data indicates that majority of the respondents agreeing to the information flow being better using an ERP system.

Qualitative Themes

Theme 1: Risk Mitigation and Supply Chain Disruption; an ERP system could help manage supply chain risks by providing real-time data on pricing trends and inventory levels.

Theme 2: Cost control and Financial Management; the integration provided by an ERP system can facilitate better financial oversight and control, ultimately leading to more informed sourcing decisions.

Inferential Statistics

Table 16: Model Summary

Model Summary					
Model	R	R Square	Adjusted R Square	R	Std. Error of the Estimate
1	.781 ^a	.609	.564		.654
a. Predictors: (Constant), Customer Relationship Management, Finance/Accounting, Human resource Management, Logistics Management, Supply Chain Management					

Source: (Field study;2025)

The model summary shows a strong linear relationship between the predictors—Customer Relationship Management, Finance/Accounting, Human Resource Management, Logistics Management, and Supply Chain Management—and the dependent variable, international sourcing efforts. An R value of 0.781 suggests a substantial correlation, with an R-Squared value of 0.609 indicating that approximately 60.9% of the variance in international sourcing efforts can be explained by these five predictors. This finding aligns with previous studies that emphasize the importance of integrated management practices in enhancing sourcing efficiency (Katuri, 2025; Lysons & Farrington, 2020).

ANOVA

Table 17: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.682	5	5.736	13.421	.000 ^b
	Residual	18.379	43	.427		
	Total	47.061	48			
a. Dependent Variable: International sourcing efforts						
b. Predictors: (Constant), Customer Relationship Management, Finance/Accounting, Human resource Management, Logistics Management, Supply Chain Management						

Source: (Field study;2025)

The ANOVA results support the significance of the regression model, with an F-statistic of 13.421 and a p-value of less than 0.001. This indicates that at least one of the predictors reliably predicts international sourcing efforts. The substantial F-statistic suggests that the model explains a meaningful portion of the variance in the outcome beyond what would be expected by chance. This reinforces the notion that the management domains included in the model are critical for understanding and improving international sourcing practices (Fischer-Preßler, Eismann, Pietrowski, & Fischbach, 2020). This also reaffirms the recommendation by the TAM that emphasizes that management needs to be able to make decisions on a system in the early stages of implementation.

Regression Coefficients

Table 18: Regression Coefficients

Model		Coefficients ^a		Standardized Coefficients Beta	t	Sig.	Tolerance	VIF
		Unstandardized Coefficients	Std. Error					
1	(Constant)	.558	.507		1.100	.277		
	Customer Relationship Management	.178	.107	.200	1.655	.105	0.41	2.439
	Finance/Accounting	.310	.114	.320	2.720	.009	0.421	2.375
	Human resource Management	.107	.124	.116	.860	.395	0.442	2.262
	Logistics Management	.508	.117	.528	4.342	.000	0.405	2.469
	Supply Chain Management	.332	.118	.314	2.803	.008	0.398	2.512

a. Dependent Variable: International sourcing efforts

Source: (Field study;2025)

Examining the regression coefficients reveals that Logistics Management has the strongest positive association with international sourcing efforts, with an unstandardized coefficient of 0.508 ($p < .001$). This indicates that a one-unit increase in Logistics Management is associated with a 0.508-unit increase in international sourcing efforts, holding other factors constant. The importance of logistics in international sourcing is well-documented in the literature, highlighting its role in ensuring timely and efficient delivery of goods across borders (Skipworth, van Hoek, Aitken, & Harrison, 2025). The findings suggest that HL should prioritize investments in logistics capabilities to enhance their international sourcing outcomes. This is because of their plans of expanding to different regions (in-country and abroad), therefore logistics management will play a central role in the success of the HL School Health program model.

Table 19: Pearson Correlation

		Correlation ^a					
		Customer Relationship Management	Finance/Accounting	Human resource Management	Logistics Management	Supply Chain Management	International sourcing efforts
Customer Relationship Management	Pearson Correlation	1	.415**	.167	.598**	.536**	.280
	Sig. (2-tailed)		.003	.246	.000	.000	.051
	N	50	50	50	50	50	49
Finance/Accounting	Pearson Correlation	.415**	1	.116	.554**	.259	.364*
	Sig. (2-tailed)	.003		.422	.000	.069	.010
	N	50	50	50	50	50	49
Human resource Management	Pearson Correlation	.167	.116	1	.270	.227	.012
	Sig. (2-tailed)	.246	.422		.058	.113	.935
	N	50	50	50	50	50	49
Logistics Management	Pearson Correlation	.598**	.554**	.270	1	.424**	.426**
	Sig. (2-tailed)	.000	.000	.058		.002	.002
	N	50	50	50	50	50	49
Supply Chain Management	Pearson Correlation	.536**	.259	.227	.424**	1	.318*
	Sig. (2-tailed)	.000	.069	.113	.002		.026
	N	50	50	50	50	50	49
International sourcing efforts	Pearson Correlation	.280	.364*	.012	.426**	.318*	1
	Sig. (2-tailed)	.051	.010	.935	.002	.026	
	N	49	49	49	49	49	49

** . Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).

Source: (Field study;2025)

The correlation analysis provides compelling evidence of the relationships between the ERP system and international sourcing efforts. The strong associations identified among logistics, supply chain management, and finance underscore the importance of these domains in enhancing sourcing outcomes. The findings suggest that HL should focus on optimising these areas to improve their international sourcing practices and achieve greater operational efficiency to support their scaling model.

Cronbach Alpha

To assess the reliability the responses from the questionnaire, the data was analysed via SPSS which yielded an overall Cronbach's alpha of 0.941. This indicates a high level of internal consistency across the 25 Likert-scale items measured. This result confirms that the survey instrument was highly reliable and items within each domain closely related and was able to be understood by all the respondents despite the majority not being supply chain experts. This means that there is a consistent measure of the ERP system's effects on Healthy Learner's international sourcing.

Thematic Table Analysis

Below is the summary of the thematic responses.

Table 20: Thematic responses

Theme	Description	Frequency of Similar Responses
Streamlined Order Processing	Respondents indicated that an ERP system could improve order management.	8
Improved Transparency	Many noted that an ERP would enhance transparency in transactions.	7
Supplier Performance Tracking	Respondents emphasized the need for better tracking of supplier metrics.	6
Risk Mitigation	Several highlighted the potential for ERP to manage risks in sourcing.	5
Communication and Relationship Management	Respondents expressed that an ERP could enhance communication with suppliers.	6
Cost Control	Few respondents mentioned that an ERP could help manage costs effectively.	4

Source: (Field study;2025)

Discussion of Findings

Objective i: The Effects of an ERP system adoption on an Organisation's International Sourcing

The findings indicate that ERP system implementation has significant effects on various aspects of an organisation's international sourcing, particularly by streamlining order processing. This finding is supported by literature emphasising the importance of efficient order management in enhancing procurement processes, improving supplier relationships, reducing lead times, and facilitating better order visibility and management (Katuri, 2025;

Venkatraman & Fahd, 2016). This finding is also supported by the ISS theory, which suggests that effective information systems contribute to improved service delivery and enhance operational efficiency and effectiveness.

Additionally, ERP systems enhance transparency and accountability in transaction processes, which are essential for maintaining trust and reliability in business relationships. Transparency in procurement processes is crucial for fostering trust among stakeholders and improving regulatory compliance (Thai, 2017). Nyoro and Paul (2017) similarly argue that by ensuring that transactions are recorded and readily accessible, ERP systems can reduce disputes and misunderstandings, thereby strengthening an organisation's sourcing practices.

The ability to effectively track supplier performance is another important effect of ERP system adoption identified by the respondents. ERP systems can enhance the monitoring of key performance indicators (KPIs), such as delivery times and quality, by providing timely and accurate information. This aligns with the ISS theory, which links effective data input with quality information output. The availability of historical and real-time data can also support pricing analysis and supplier evaluation and selection. This is consistent with Kano et al. (2020), who emphasise the importance of effective supplier performance management in optimising procurement strategies and enabling organisations to respond quickly to market demands. By facilitating assessment of supplier performance, ERP systems can strengthen partnerships, mitigate supplier-related risks, and improve international sourcing strategy (Heizer et al., 2017).

Furthermore, the findings suggest that ERP systems enhance risk management in international sourcing by providing real-time information on pricing trends and inventory levels. This visibility enables organisations to respond more effectively to supply chain disruptions and make informed decisions, which is particularly important where external factors can affect operational stability (Fischer-Preßler et al., 2020). ERP systems also support cost control and financial management by integrating procurement and finance functions, which is essential when managing currency fluctuations and global suppliers (Skipworth et al., 2025). This highlights the importance of Financial Supply Chain Management (FSCM) in international sourcing.

The findings suggest that ERP system implementation has substantial effects on international sourcing, including improved order processing, transparency, supplier performance tracking, risk mitigation, and cost control. Beyond operational efficiency, these benefits can support strategic decision-making and strengthen supplier relationships. Senior management commitment is also identified as a critical success factor for effective ERP implementation (Akeel & Wynn, 2015).

Objective ii: Correlation between an ERP system and International Sourcing

The correlation analysis reveals significant relationships between the management domains and international sourcing efforts, indicating a positive association with ERP system implementation. The model summary shows a strong relationship between

Customer Relationship Management, Finance/Accounting, Human Resource Management, Logistics Management, and Supply Chain Management and international sourcing efforts. An R value of 0.781 indicates a strong correlation, while an R-squared value of 0.609 shows that these five predictors explain approximately 60.9% of the variance in international sourcing efforts. This finding aligns with previous studies highlighting the importance of integrated management practices in improving sourcing efficiency (Katuri, 2025; Lysons & Farrington, 2020).

The ANOVA results further support the significance of the regression model, with an F-statistic of 13.421 and a p-value below 0.001, indicating that at least one predictor significantly predicts international sourcing efforts. The F-statistic also suggests that the model explains a meaningful proportion of variance beyond chance, reinforcing the importance of the management domains in understanding international sourcing practices (Fischer-Preßler et al., 2020). This finding also supports TAM, which emphasises the importance of management decisions during the early stages of ERP implementation.

Examining the regression coefficients reveals that Logistics Management has the strongest positive association with international sourcing efforts, with an unstandardized coefficient of 0.508 ($p < .001$). This indicates that a one-unit increase in Logistics Management is associated with a 0.508-unit increase in international sourcing efforts, holding other factors constant. The importance of logistics in international sourcing is well documented, particularly in ensuring the timely and efficient delivery of goods across borders (Skipworth et al., 2025). Given HL's plans to expand both locally and internationally, prioritising logistics capabilities will be central to strengthening its international sourcing outcomes and the success of the HL School Health programme.

Supply Chain Management (SCM) also shows a meaningful positive effect on international sourcing efforts, with a coefficient of 0.332 ($p = .008$). This finding aligns with research showing that effective supply chain management is essential for optimising procurement strategies and responding to market demands (Kano et al., 2020). The positive relationship underscores the need for comprehensive supply chain strategies aligned with sourcing objectives. Although SCM has traditionally been a support function at HL, it has emerged as a critical operational function and is increasingly shifting towards strategic demand planning.

Finance/Accounting also contributes positively to international sourcing efforts, with a coefficient of 0.310 ($p = .009$), highlighting its value in managing costs and financial risks. Effective financial management is particularly important in international sourcing for mitigating risks associated with currency fluctuations and ensuring budgetary compliance (Fischer-Preßler et al., 2020). The findings indicate that integrating finance and accounting functions within an ERP system can further strengthen financial management, as reflected in the concept of Financial Supply Chain Management (FSCM). Conversely, Customer Relationship Management and Human Resource Management show smaller, non-significant effects, with coefficients of 0.178 ($p = .105$) and 0.107 ($p = .395$), respectively.

While these functions remain important, their direct influence on international sourcing appears less pronounced than that of logistics, supply chain, and finance functions. This finding is consistent with literature highlighting the critical role of operational functions in sourcing performance while recognising the supportive contribution of CRM and HRM to broader organisational strategies (Gee et al., 2022).

The correlation analysis provides evidence of the relationship between the ERP system and international sourcing efforts. The strong associations among logistics, supply chain management, and finance highlight their importance in improving sourcing outcomes. The findings suggest that HL should optimise these areas to enhance operational efficiency and support its scaling model.

Objective iii: Influence of ERP System on an Organisation's International Sourcing

The influence of an ERP system on international sourcing is multifaceted, particularly in enhancing operational efficiency and strategic decision-making. A key influence identified in the study is the streamlining of sourcing processes, consistent with research highlighting the importance of efficient order management in improving procurement processes and supplier relationships (Katuri, 2025) and with technology advancements under the TAM (Davis & Granić, 2024). By providing a centralised platform for managing orders, ERP systems enhance visibility and coordination, leading to improved sourcing outcomes.

Another significant influence of ERP systems is their ability to provide clearer audit trails and improve order tracking. This aligns with research highlighting the importance of transparency in procurement processes for building stakeholder trust (Thai, 2017). By ensuring that transactions are recorded and readily accessible, ERP systems can reduce disputes and misunderstandings, thereby strengthening sourcing practices.

The ability to track supplier performance is another important influence of ERP systems on international sourcing. The findings indicate that HL's current systems provide insufficient visibility into supplier activities, potentially leading to inefficiencies. An ERP system could improve the tracking of key performance indicators (KPIs), such as delivery times and quality, while enabling real-time data analysis to strengthen supplier evaluation and selection. This could foster more strategic partnerships, mitigate supplier-related risks, and highlight the importance of an effective ICT system.

Moreover, the ERP system can influence distribution risk mitigation in international sourcing by providing real-time information on pricing trends and inventory levels. This proactive approach is important for organisations engaged in international sourcing, where external factors can affect operational stability (Fischer-Preßler et al., 2020). By enhancing visibility across the supply chain, an ERP system enables organisations to respond more effectively to disruptions and make informed decisions that align with their sourcing strategies.

Additionally, the ERP system's influence on financial management and cost control in international sourcing is crucial as highlighted by several respondents. The integration of procurement and finance functions within an ERP system will enhance HL's ability to

manage costs associated with international sourcing effectively. This finding aligns with research indicating that effective financial management practices are essential for organizations to thrive in competitive markets (Skipworth, van Hoek, Aitken, & Harrison, 2025).

The ERP system's role in improving communication and relationship management with suppliers is critical for successful international sourcing. This underscores the current gaps in HL's communication that can lead to misunderstandings and delays. An ERP system can streamline communication channels by providing a centralized platform for order management and updates, ensuring that all stakeholders are informed and aligned regarding order specifications and timelines. By improving communication, an ERP system can help organizations build stronger supplier relationships, leading to more effective sourcing outcomes increasing user and user satisfaction as evidenced by the ISS theory.

The findings suggest that the ERP system enhances compliance with international regulations by providing tools for tracking and documenting compliance-related activities. This aligns with research emphasising the importance of regulatory compliance in global sourcing (Kano et al., 2020). By ensuring that sourcing activities comply with relevant regulations, organisations can reduce legal risks and strengthen their reputation in international markets. Overall, ERP systems influence international sourcing through improved operational efficiency, risk management, financial oversight, communication, and compliance, enabling organisations to strengthen sourcing practices and align them with strategic goals, consistent with the Technology Acceptance Model (TAM) (Davis, 1985).

Conclusion and Recommendations

Objective i: The Effects of an ERP System Adoption on an Organisation's International Sourcing

The study found that ERP system implementation significantly affects various dimensions of international sourcing. Streamlined order processing emerged as a key effect, enabling the organisation to manage urgent orders more effectively and address challenges associated with short-notice orders, thereby improving operational efficiency. This finding is consistent with literature highlighting the role of efficient order management systems in improving procurement processes and supplier relationships (Katuri, 2025). The study also found that ERP enhances transparency and accountability in transaction processes through clearer audit trails and improved tracking of orders and supplier performance. This can strengthen trust in business relationships, reduce misunderstandings, and ensure that key performance indicators (KPIs) are clearly defined.

This capability fosters strategic partnerships, mitigates supplier-related risks, and strengthens the organisation's international sourcing strategy. Overall, the findings suggest that ERP systems enhance operational efficiency and effectiveness in international sourcing, providing a strong foundation for the organisation's procurement activities.

Objective ii: Correlation between an ERP System and International Sourcing

The findings reveal a strong relationship between Customer Relationship Management, Finance/Accounting, Human Resource Management, Logistics Management, Supply Chain Management, and international sourcing efforts. An R value of 0.781 and an R-squared value of 0.609 indicate that the five predictors explain 60.9% of the variance in international sourcing efforts, highlighting the importance of integrated management practices in supporting effective sourcing strategies.

Further, the ANOVA results confirmed the statistical significance of the regression model, indicating that at least one predictor significantly predicts international sourcing efforts. The significant F-statistic and p-value show that the model explains a meaningful proportion of the variance in sourcing outcomes beyond chance. These findings highlight the need for organisations to optimise these areas to strengthen their international sourcing capabilities.

Objective iii: Influence of ERP System on an Organisation International Sourcing

The study found that ERP systems significantly streamline sourcing processes by enhancing visibility and coordination in order management. Respondents indicated that ERP systems could reduce challenges associated with urgent orders, thereby improving overall sourcing efficiency. This finding is consistent with research highlighting the importance of efficient order management systems in improving procurement processes (Katuri, 2025).

Additionally, ERP systems enhance transparency and accountability in sourcing transactions through improved order tracking and clearer audit trails. This is important for maintaining stakeholder trust and ensuring regulatory compliance (Thai, 2017). The ability to track supplier performance and manage supply chain disruption risks further demonstrates the influence of ERP on international sourcing. Overall, the findings indicate that ERP systems can improve sourcing practices, support strategic alignment, and enable organisations to manage the complexities of international procurement more effectively.

Recommendations

Based on the findings and conclusions drawn from this research, the following recommendations are proposed for start-up organisations and NGOs wishing to expand to new locations:

1. Earmark a dedicated capital budget for the expansion of digital infrastructure: At feasibility planning stage, Organisations should adequately budget for the digital infrastructure implementation i.e ERP system.
2. Understand the Business environment in the new global market: Organisations sourcing Internationally should put into consideration all the market dynamics and regulatory laws of the countries they are sourcing or setting up operations in. A comprehensive SWOT analysis is to be carried out.

3. **Strengthen Supplier Relationship Management:** It is recommended that organizations implement strategies within the ERP system to facilitate better communication and relationship management with suppliers.
4. **Improve Risk Management Mitigation Capabilities:** Organizations should prioritize enhancing the risk management functionalities of their ERP systems. This includes implementing tools for real-time monitoring of supply chain disruptions and developing contingency plans to mitigate risks effectively. This will resolve the problems of manual processes and delayed report processing.
5. **Integrate Financial Management with Procurement and Logistics:** To improve cost control and financial oversight, organizations should ensure that their ERP systems integrate finance and procurement functions.
6. **Regularly Update the ERP System and Training:** Organizations should commit to regular maintenance and update of their ERP systems to keep pace with technological advancements and market changes. This will ensure that the system remains effective in supporting international sourcing efforts and compliance with relevant regulations. Therefore, organisations will have to invest to frequent employee training.

Limitations of the Study

A few challenges were faced by the researcher during this study. The biggest limitation of this study as mentioned in chapter one is that the study conducted mainly on the Healthy learner's head office in Lusaka because that is the location of the organisation's central warehouse. Another limitation to this study pertains to the fact that the core business of Healthy Learners is to give primary healthcare training to schoolteachers for school-aged children. Therefore, most of the HL employees are field workers (as trainers) as shown from the demographic information (i.e Programs and M&E) which left the researcher with a small sample for the qualitative data respondents. Additionally, the supply chain department is made up of a total of 10 personnel meaning that only 8.9% of the Zambian office has the supply chain and sourcing expertise.

Areas of Future Research

For future research, it is recommended that future studies should:

Explore the operational impacts of ERP system implementation on organizational performance for Third-party procurement (3PP) organisations or Commission agents.

Examine the role of organizational culture in the successful adoption and utilization of ERP systems could yield valuable findings that inform best practices for implementation.

Expand this scope by conducting a comparative analysis of the food-for-education supply chain. This study can provide insights to whether ERP systems offer efficiencies and benefits in the sourcing of perishable commodities for large-scale nutritional programs.

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Declaration

The authors declare that the work in this study is original work and has not been published previously and is not under consideration for publishing elsewhere. All data and analysis presented in this manuscript are authentic and have been conducted per relevant ethical standards. Citations and references have been made appropriate where other people's work has been used. The resources used and institutional support are duly acknowledged and approved for submission.

Conflict of Interest

The authors declare that they have no conflicting interest related to this study.

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Ethical Considerations

The study followed all ethical standards for this kind of research.

AI Declaration Usage

The authors used Gemini for language editing and grammar correction. This was approved and verified by the authors who take full responsibility for the content of this article.

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