IT implementation in developing countries
An exploration of cost-effective methods of integrating IT systems in small-scale businesses in Zambia.

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Abstract
Not only is IT under deployed in developing countries, it also has not been utilised to considerable benefits. Of paramount importance is the productivity growth that can be attributed to IT investment that follows the concept that automation due to IT integration in business management systems increases labour productivity and that organisational process improvements increase multi-factor productivity. Objectively, IT investment can also be made for the purpose of increasing profitability. Empirical studies (Dedrick et al, 2003) show inconsistent and insignificant correlations between IT investment and growth in both labour productivity and multi-factor productivity in developing countries. But IT implementation relative to small-scale businesses contextually in developing countries where the availability of investment resources is of profound scarcity is a high tension tussle for such firms to bridge the alternative positions especially when clarity of such investments yielding tangible benefits is still not definitive. 

Further, growth and development of small-scale firms in developing countries, especially those in sub-Saharan Africa where they make a significant contribution to sustainable activity, has shown the importance of the socio-economic role these organisations play (Liedholm, 2002; Trulsson, 2001; Liedholm & Mead, 1999). Generally, IT does not only make business processes and tasks more efficient but it also enables the creation of products, services, distribution channels, and links with customers, suppliers and other stakeholders (Van der Zee and de Jong, 1999). From this aggregation of situations, strategic alliances in IT-enabled business systems are the suggested solution to the problem question and the path taken contextually by organisations to reach this final stage is to be outlined in this study.

Keywords: Strategic IT Management, IT integration, Business Process Management, eCommerce, Supply Chain Management

Article Type: Research paper
# Table of Contents

Abstract ......................................................................................................................... i
Declaration ..................................................................................................................... ii
Confidentiality Statement .......................................................................................... ii
Acknowledgements ....................................................................................................... iv
Glossary ......................................................................................................................... v

1. **Introduction** ........................................................................................................... 1
   1.1 Disposition ........................................................................................................... 2

2. **Research Objectives** ............................................................................................ 5

3. **Literature Review** .................................................................................................. 7
   3.1 Introduction ......................................................................................................... 7
   3.2 Competitive Advantage ...................................................................................... 8
   3.3 Alignment and Integration .................................................................................. 10
   3.4 Strategic Innovation .......................................................................................... 14
   3.5 Benefits of IT integration ................................................................................... 16
   3.6 Barriers of IT implementation ............................................................................ 19

4. **Research Methodology** ........................................................................................ 21
   4.1 Introduction ......................................................................................................... 21
   4.2 Choice of Methodology ...................................................................................... 21
   4.3 Basic Approach to Research .............................................................................. 22
   4.4 Sampling and Size ............................................................................................. 23
   4.5 Limitations and Assumptions ............................................................................ 23

5. **Findings and Discussions** ..................................................................................... 25
   5.1 In-depth Interviews ........................................................................................... 25
   5.2 Findings and Analysis ........................................................................................ 25
   5.3 Internet Service Providers (ISPs) ....................................................................... 27
   5.4 Limitations and Barriers .................................................................................... 28
   5.5 The Zambian Government .................................................................................. 29
   5.6 The ICT Act of 2009 ......................................................................................... 30

6. **Conclusion and Recommendations** ..................................................................... 31
   6.1 Introduction ......................................................................................................... 31
   6.2 Strategic Alliances .............................................................................................. 31
   6.3 Extranets ............................................................................................................. 33
      6.3.1 Introduction .................................................................................................. 33
      6.3.2 Extranets and Supply Chain Management .................................................... 33
      6.3.3 Using Extranets in Supply Chain Management ............................................. 34
1. Introduction

IT has evolved in recent years from a back-office support utensil to a major component of business strategy. As such, organisations through their managers need to be aware of the risks and return on investments (ROI) that comes from IT spending and how business value arises from it. With this growing importance of IT, organisations are required to integrate IT decisions with their common planning and decision-making process. Businesses have to take advantage of the lure of assurances of improved business performance, streamlined business operations, and reduced expenses when they implement initiatives of integrating IT systems into existing business settings.

In any country, small-scale businesses have a key role to play in economic development (Poon and Swatman, 1999) due to their capability to create wealth, jobs and social cohesion. But despite the fact that they are not as competitive as larger and well-established companies, small-scale businesses are still viewed as instruments capable of responding to economic challenges due to their flexibility and quick adaptability to change. In developing countries, growth and success of small-scale businesses are particularly constrained by a lack of financial resources, poor management, poor infrastructure and a lack of demand for products and services. With increasing globalisation, these small-scale businesses have received increased interest because of the arising opportunities. But the competitiveness of these businesses is based on their ability to effectively utilise IT. In spite of a witnessed rise in small-scale businesses in the last 20 years, they still lack the enthusiasm to use IT because they are unaware of its long-term benefits and most probably the cost of IT investment that can curtail an organisation’s longevity. If small-scale businesses in developing countries are to have meaningful participation on the economy, they have to accord themselves a determining role in both local and global markets, and therefore attain a comparable footing with their counterparts in developed countries.

The interest on the effectiveness of IT investment has been growing among researchers, consultants and practitioners due to the large IT investments that businesses make, how the impact of IT on organisational performance has increased in strategic nature, and also the realisation of both efficiency and effectiveness benefits and the lack of an apparent consensus for an authentic definition of IT success (Lubbe, 1999). There are also implementation challenges encountered with IT investments that can be attributed to poor project management made up of a variety of organisational, operational and technical challenges (Bingi et al., 2003; Davison, 2002; Ross and Vitale, 2000; Willocks and Sykes, 2000). As evidenced from the majority of IT implementation projects, they also are usually delayed and more expensive than initially budgeted for. Decreasing the cost of IT investments is therefore becoming an issue of paramount
importance, more so for small-scale businesses. Presenting the problem on a developing country stage, the concept is consequently associated with more limitations.

Apart from the usual significant concerns about how small-scale businesses can benefit from IT and the electronic environment, governments have to implement a wealth of initiatives to provide an enabling platform. Coupled with this, there has been a radical alteration on the business landscape created by the internet thereby implying that organisations need to implement effective strategies to realise benefits from the dynamic and information-rich electronic environment (Downs and Mui, 1998). Most small-scale businesses in developing countries do not have IT systems to manage their business processes but there are problems associated with decisions to ignore opportunities created by IT integration. If large organisations accumulate wealth through the implementation of IT and trading benefits offered by the utilisation of the electronic environment, small-scale businesses can take advantage of this environment that facilitates trading over regional and geographical boundaries at low cost.

Investigations carried out in this study mainly through in-depth interviews (practical) and the analysis of academic literature (theory) have uncovered alternative ways of implementing IT into the management systems of small-scale businesses in Zambia using cost-effective methods. Arriving at this conclusion was based on careful examination of past practices that yielded tangible benefits paralleled with the economic situation of small-scale businesses in developing countries. From this aggregation of situations, strategic alliances in IT-enabled business systems are the suggested answer to the problem question and the path taken contextually by organisations to reach this final stage is to be outlined in this study.

1.1 Disposition

i) Research Objectives
Past studies investigating the value of IT investments have not given a clear indication of tangible payoffs and it is the aim of this chapter to clarify that it is not just the aspect of creating a synergy between two alternative positions of continued prosperity under a traditional management approach and the perceived benefits attributed to IT-enabled management systems, but also structure a foundation that explores ways small-scale businesses can employ cost-effective methods of IT implementation to effectively manage their business processes and thereby experience growth. The objectives are formulated with the help of research questions.
ii) Literature Review
This chapter looks at secondary data pertaining to existing studies on IT implementation from a developing country perspective. It includes observations made in implementing IT-based systems in some parts of Africa. Concepts of benefits of IT and how evaluation of IT investments have been addressed in previous studies are assessed in trying to gain insight into measures that are required to substantiate the value of IT to small-scale businesses. The chapter also looks at the importance of strategic alignment of IT to business goals and objectives during the integration process as a significant determinant for the attainment of competitive advantage. A defined stage-by-stage process that helps organisations in the planning phase in determining IT systems requirements is looked at. Details on how organisations have benefited from IT in the past and how the application of strategic innovation can endure long-term benefits to organisations are examined. Of paramount importance and on which basis this study is conducted, barriers of IT implementation are analysed that help formulate the solution for cost-effective methods of IT investment in small-scale businesses.

iii) Research Methodology
This chapter outlines the overall research design for this study in obtaining the required information to answer the research questions. Basic approach to the study and reasons for the choice of methodology are stipulated as well as clarifications made as to why the methodology was preferred ahead of others available. Limitations and assumptions to the methodology are explained while questions used for face-to-face interviews are also drawn (these have been relocated to Appendix I).

iv) Findings and Discussions
The findings of the research through face-to-face interviews and analysis of secondary data is provided in this chapter. This paints a specific picture of Zambia and the issues faced by small-scale businesses in implementing IT systems in business process management. A discussion is conducted on the general suggestions applicable to the predicament these organisations face. The role of other determining factors in the successful implementation of IT-based systems such as internet service providers (ISPs) and the government are analysed.

v) Conclusion and Recommendations
The chapter provides suggested recommendations based on the current economic situation evident in the small-scale businesses as well as the environmental analysis made to determine what changes need to be implemented to successfully adhere to the research objectives. This
chapter creates a synergy between all necessary players required to implement IT management systems using cost-effective methods. Organisations that want to cut costs and increase revenue can use this chapter as a blue print primarily because it offers detailed recommendations including various cheaper ways of conducting business communication.

vi) References
This section contains all references of information used in the study, mainly contained in the Literature Review.

vii) Appendix I
This section contains interview questions.

viii) Appendix II
This is a copy of the Research Proposal from which this dissertation is developed.