

**TECHNOLOGICAL, ECONOMIC, HUMAN RESOURCE
AND ORGANISATIONAL CHALLENGES
INKNOWLEDGE MANAGEMENT OF SMALL AND
MEDIUM ENTERPRISES (SMEs) IN A SELECTED CITY
IN THE REPUBLIC OF ZAMBIA**

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-Abstract-

In a knowledge economy, knowledge has become the basic form of capital. Economic growth is driven by the accumulation of knowledge. Knowledge is used in organisations to make money. The current study seeks to explore the challenges that SMEs experience when managing their knowledge in a developing country, Zambia that is undergoing radical change. An exploratory and descriptive type of study was conducted because there is little research that has been done on the availability and challenges of Knowledge Management in Small and Medium Enterprises (SMEs) in Zambia. Questionnaires were administered to a sample of SMEs that were drawn randomly across the selected city and those registered with the relevant authorities that is, the Patents and Companies Registration agency (PACRA) of Zambia. Interviews were conducted with some of the supervisors of these SMEs to allow for more probing and insight into the challenges being experienced. It was found out that most SMEs experienced

challenges of competing in the global market more specifically, economic, political and social challenges, human resource challenges, organisational structure challenges and technological challenges.

KeyWords:Explicit Knowledge; Knowledge Management (KM); Small and Medium enterprises (SMEs); Patents and Companies Registration agency (PACRA)

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1. Introduction

Knowledge is an important source for learning new things, solving problems, creating core competencies and establishing new positions for individuals and the organization at present and in the future (Nasimi, Nasimi, Kasmaei, Kasmaei, Basirian & Musapour, 2013). Knowledge as a fundamental principle of competitive advantage has been emphasized in the field of strategic management. To achieve sustainable competitive advantage, an organization should realize how to create, distribute and utilize knowledge (Rahimli, 2012); hence, the need for responsiveness to knowledge in organizations. Furthermore, Paton (2008:303) quotes Kluge Stein & Licht (2001) that 'if a Knowledge programme is to be embraced by the workforce, every individual needs to be thirsty for knowledge. Employees should see Knowledge Management, or to be precise the active application, distribution and cultivation of knowledge throughout the whole organisation, as a fundamental part of their personal success and satisfaction. The Small Medium Enterprise (SME) sector in Zambia contributes to a large proportion of the economy in terms of income and job creation. Ever since the diversification of the Zambian economy in the early 1990s, a lot of Small Medium Enterprises (SMEs) sprung up dealing in a variety of goods and services. A lot of Zambians lost their jobs during this time due to the closure of mines on the Copper belt Province of Zambia and as such had to look for

other means of livelihood. This is what led to the creation of a lot of SMEs.

2. Statement of research problem

SMEs in most countries contribute a lot to the development of a country. SMEs are involved in the manufacturing, hospitality and service industry, trading, transport, agriculture and other economic activities. They create jobs and reduce poverty in many households. In all these activities, there is a lot of knowledge which is created. This knowledge needs to be managed if any value is going to be made out of it. A lot of studies that have been carried out by many scholars show that good and effective Knowledge Management aids in improved practice and performance in organisations. However, most of these studies were carried out in organisations with sufficient resources and capacity to carry out Knowledge Management effectively. Further on, most of these organisations where studies conducted in developed countries. This study seeks to carry out a study in a city in Zambia. The focus of this study is to look at the availability of Knowledge Management in SMEs and try to establish the challenges of Knowledge Management faced by these SMEs in Zambia. This can help in coming up with Knowledge Management models and practices that would be best suited to SMEs alone in the future.

3. Aim of the study

The aim of this research paper is to provide insights on the dynamics of technological, economic, human resource and organisational challenges in knowledge management in small and medium enterprises (SMEs) in a selected city in the Republic of Zambia.

4. Objectives

The main objective of the current study is to explore the availability and challenges of Knowledge Management of Small and Medium Enterprises in a selected city in Zambia.

1. To determine the technological, economic, human resource and organisational structure challenges of Knowledge identification, acquisition, sharing and application in SMEs.
2. To establish what economic, social or political conditions are a challenge in implementing Knowledge in SMEs in a selected city in Zambia and offer recommendations.

5. Research Hypothesis

H₁. Technological, economic, social and political challenges of Knowledge Management in terms of knowledge identification, sharing, acquisition and application have an effect on the growth of small and medium enterprise.

6. Literature review

6.1. Small and Medium Enterprises (SMEs)

According to the Zambia Development Act No. 11 of 2006, Small Enterprises are classified as any business enterprise registered with the Registrar of Companies whose total investment, excluding land and building in the case of manufacturing and processing enterprises is between K81 million and K200 million in plant and machinery. In the case of trading and service providing enterprises total investment excluding land and building must be up to K150 million with an annual turnover between K151 million and K300 million. Furthermore, the business should be employing between 11 and 50 persons.

6.2. Knowledge Management (KM)

Parkinson and McBain (2013:520) define knowledge management as formal and informal organisational attempts to develop, elicit, distribute and make productive the knowledge possessed by its employees.

6.3. Explicit Knowledge

Collectively held and communicable knowledge that is 'out there' and is codified in the form of, for example data, procedures and processes that are written down in books, company manuals etc. according to Parkinson and McBain (2013:518).

7. Literature review

Rasula, Vuksic & Stemberger(2012) states that Knowledge Management is a process that through creating, accumulating, organizing and utilising knowledge helps achieve objectives and enhance organisational performance. For this study, challenges related to technology, organisational structure, economic, social and political conditions shall remain the main focus. These challenges are experienced by both big organisations with sufficient funds for Knowledge Management implementation and organisations like SMES who may not have sufficient funds for Knowledge Management implementation. Whatever the case, Knowledge Management has its own challenges. A look at a study that was done at International Business Machines (IBM) by McLaughlin & Patton (2008) identified some barriers to Knowledge creation and sharing. Some of the barriers identified were available technology, knowledge implementation strategy, arduous relationships, trust, risk and knowledge cost, amongst others. Paton & McCalman (2008) identified technological, personal and organisational structure as the main barriers to Knowledge Management.

Kluge et al., 2001; Krogh, Nonaka, & Aben, 2000; Szulanski, 1996) all support the view that relationships between employees contribute to knowledge transfer failure. All these studies indicate the barriers of knowledge transfer in studies conducted in big organisations. On the other hand, a study by Bowen Morara & Mureith (2009) indicates that 90.9 percent of SMEs serve the customers who live and work in the same town or city. In the same study, past experience was indicated as one of the business challenges of SMEs. Results of the study show that 'on

the question of whether they had ever started or owned other businesses that were no longer in operation, only 6 percent of the respondents responded in the affirmative. However, 90 percent have since closed owing to various reasons. Further analysis shows that previous ownership of similar businesses does not guarantee success in future business.' In the same study, results show that 72.7 percent of those who had owned similar businesses in the past still considered their current businesses as being in the process of failing. Considering this finding, one may infer that future business success is not pegged on previous ownership of similar businesses.' Then again, 'it is widely recognized that the external environment plays a critical part in SME growth (Hashi & Kransniqui, 2011).

7.1. Technological Challenges

In the global village of today, Information Technology (IT) may be a challenge to SMEs as most of them may not have the tools and skills to use IT in their work. This could be as a result of insufficient funds to invest in these tools or illiteracy levels of the employees. This may act as limitation to work progress in SMEs in this era of information and communication technologies (ICTs). Megdadi, Al-Sukkar & Hammouri (2012) state that 'Without suitable Information Technology (IT) tools, Knowledge Management can't be practiced because IT is a foremost enabler for Knowledge Management practices.' This is also supported by Wong (2005) and Liebowitz (1999).

7.1.1. Knowledge Identification and Information Technology

In order for the SME to carry out Knowledge Management in its organisation it needs to identify the type of knowledge it requires for its day to day business transactions. Knowledge Management helps to identify the knowledge gaps that exist in the organisation (Wai Yip, Ng & Lau, 2012).

The process of identification and creation of knowledge may pose a challenge to many SMEs as most of the important knowledge is kept in the minds of the owner of the business and

a few other trusted employees who could probably be family members (Durst & Edvardsson, 2012; Bowen et. al., 2009).

7.1.2. Knowledge acquisition and information technology

Wai Yip et al., (2012) state that Knowledge acquisition is quite simply the process of acquiring knowledge that is available somewhere... for an organisation this may entail capturing knowledge from existing documents. It could mean capturing the tacit knowledge its people into its repositories. Or it might mean identifying external sources of either process/technology expertise or market intelligence so that this knowledge can be purchased. In this global village of today, knowledge identification need not be restricted to the company itself but also from outside the company.

7.1.3. Knowledge application and Information technology

Application of the company's knowledge into the company's products, processes and services is an important aspect of Knowledge Management. Mere identification of the company's knowledge without using that knowledge is not enough for Knowledge Management. It is this application that will determine the effects of Knowledge Management. SMEs need to understand and learn how to apply the knowledge acquired into their business for the business to grow.

7.2. Organisational structure challenges

In terms of organisational structure, the structures of SMEs compared to bigger organisations differ. Even though previously conducted studies show positive results of Knowledge Management, these studies were done in bigger organisations with facilities and resources different from SMEs. Organisational structure is important for leveraging technological architecture. Although intended to rationalize individual functions or units within an organisation, structural elements have often had the unintended consequence of inhibiting collaboration and sharing of knowledge across

internal organisational boundaries. In essence, it is important that organisational structures be designed for flexibility (as opposed to rigidity) so that they encourage sharing and collaboration across boundaries within the organisation and across the supply chain (Gold, Malhotra & Segars, 2001).

7.3. Human Resource challenges

Results of a study by Mboniyane & Ladzani (2011) shows that 40 percent of survivalists, 60 percent of micro-enterprises and 0 percent of small businesses reported that no training was provided for their staff. Most SMEs have the characteristics of not having very educated employees. This stems from the fact that most of them do not have sufficient funds to employ educated people.

Further on, most SMEs also tend to have the characteristic of being family owned. This tends to have an impact on the way knowledge is shared in the organisation. Knowledge on its own is not power. Unless it is shared and utilised to create value, then it becomes power. Therefore the saying 'Knowledge is Power' is of no use to anyone if that knowledge is not shared. Knowledge sharing is an important aspect of Knowledge Management. While the size of SMEs often means that the organisational culture is very conducive for knowledge sharing, the informal nature of knowledge sharing and capture can bring risks (Staplehurst & Ragsdell, 2012).

7.4. Economic, Political and Social challenges

SMEs are driving engines of most countries and they play a significant role in the growth of most economies by contributing significantly to Gross Domestic Product (GDP) (Bowen et al., 2009; Chisenga, 2008). In the employment sector SMEs also employ a lot of people. Studies in Knowledge Management so far have shown that application of Knowledge Management in organisations contributes significantly to the growth of an organisation. Yet most of these studies have been done in developed or developing countries with conditions that may be more conducive for conducting business. This study is focused

on looking at the challenges that SMEs in the Zambian experience. A study by Bowen et al (2009) indicates that 90.9 percent of SMEs interviewed serve the customers who live and work in the same town or city. Globalisation is a reality and a challenge that small businesses have to contend with. Globalisation presents both challenges and opportunities. As much as SMEs remain local, they need to think global and target markets beyond their regional boundaries.

8. Research design

An exploratory and descriptive type of study was conducted because there is little research that has been done on the availability and challenges of Knowledge Management in Small and Medium Enterprises in Zambia. Questionnaires were administered to a sample of SMEs that were drawn randomly across the city and those registered with the relevant authorities. Interviews were conducted with some of the supervisors of these SMEs to allow for more probing and insight into the challenges being experienced.

9. Research methodology

The research methods that were used in the collection and analysis of data involved interviews, observation, questionnaires, group discussion and library research. A survey was used as it was appropriate because it looked at the general aspects of the problem which was occurring in a range of SMEs operating in the same city with similar conditions and opportunities.

10. Population

The population of study includes micro and small scale business operators operating in a selected city of Zambia registered with the relevant authorities being the Patents and Companies Registration agency (PACRA) of Zambia. A variety of economic activities happening in the city such as restaurants and lodges in the service industry, carpentry, tailoring, manufacturing industry, beauty hair salons/barbershops and retail shops were

selected. In order to obtain a sample size from the population from selected micro and small scale business operators from selected locations in the selected city, and through a random sampling exercise had 10 metropolitan assemblies selected for the study. The paper had these selected areas obtain a sample elements of 100 respondents which also means 10 respondents (i.e. micro and small scale business operators) from each selected area through a probabilistic sampling techniques. The primary data was acquired through the use of a questionnaire, personal observation and interview.

11. Data analysis

Data analysis is the process of running various tests on data that one has obtained at the end of a research study. Therefore, it involves decisions concerning tests to be made and the data to be used in these tests. In the final analysis, the end result is formation of conclusions that can be used for future decision making.

12. Instruments and Data analysis

The primary instrument used for gathering data for the study was the questionnaire. The questionnaire was designed with open and close ended patterns and administered directly on the operators of the micro and small scale enterprises. The data obtained was presented in tables and analyzed using non-parametric simple percentages and the Z-test statistical technique was applied in order to confirm the stated hypothesis. A total of 90 of the questionnaire were returned out of which 85 was found to be valid and useful for our study. This represents 85% which is good enough, as it is reliable and generalizable. The questionnaire was analyzed after which the stated hypothesis were further analyzed for confirmations. The statistical program that was used for the analysis of data was Microsoft Excel 2013.

13. Research findings

In the duration of this study, 100 questionnaires were distributed to micro and small business operators in their business centers in order to gain insights on the dynamics of technological, economic, human resource and organisational challenges in knowledge management in small and medium enterprises (SMEs) in a selected city in the Republic of Zambia. The result of the general evaluation shows that people (45 %) and production (39 %) are the most invested areas. Such a result is not pleasant but on the other hand it is necessary to realize that managers understand investment into people in a very wide range. For example, investments into development ordered by law at specific occupations are not so important for this study's evaluation. Information technologies (36%) were number two priority in used investments and then people again (33%). The third option in the investment sequence were different areas chosen by people, however, the most being marketing (50%) and logistics (29%). All the process of development is on consideration and abilities of local managers, of course while fulfilment of business financial criteria. It has been proven in discussions with the managers that the amount of investments is significantly affected by the fact that the managers do not know suitable methods of how to approach to measurement of return on funds invested into development of employees, which is a subject-matter of the study.

Table 1: Analysis of Hypothesis 1: Technological, economic, social and political challenges of Knowledge Management in terms of knowledge identification, sharing, acquisition and application have an affect the growth of small and medium enterprise.

Challenges	Frequency	Percentage
Technological challenges	15	17.6
Economic challenges	45	52.9
Social challenges	10	11.8
Political challenges	10	11.8
Organisational structure	5	5.9
Total	85	100

Source: Field Survey 2015.

In testing this hypothesis, Table 1 was drawn. It was discovered that the calculated $Z= 4.28$ is lesser than the critical $Z = 1.97$. This accepts the hypothesis that Technological, economic, social and political challenges of Knowledge Management in terms of knowledge identification, sharing, acquisition and application have an affect the growth of small and medium enterprise.

14. Discussions

It is becoming a paradox of the information society that computers are able to do complicated mathematical calculations but creativity remains a domain of people and their brains. Some countries have realized this problem and they build their economic models on educated and creative people. An idea of brain-drain is frequently used as an argument against investment into human capital. However, examples from practice show that it is necessary to take care of satisfaction of the people and to help them achieve happiness and then they will have no reason to look for their happiness anywhere else. From the long-term point of view looking at the survival of a company through the prism of human capital, several important elements occur. First of all it is a culture which is oriented on performance and performance management approach. Then they are low fluctuation of employees particularly regarding to the key groups of employees, high level of employee satisfaction, and readiness of a group of qualified personnel reserves, efficiently set remuneration system, investments into human capital development and using the company system of competences at selection and performance assessment of employees. Most of the participants had considerable experience before moving to self-employment. These include the interactions between human capital and social capital, through specific contacts and networks; their motivations and if these relate to economic, self-fulfillment or lifestyle reasons; resources for start-up and if these influenced where and how they provided their services; and if they have aspirations to grow their businesses. Looking at table 1 which revealed that 17.9 percent of the respondents indicate that

technological challenges are a challenge, economic challenges accounted for 52.9 percent of the challenges, interestingly social and political challenges both scored 18.8 percent and organisational structure challenges accounted for 5.9 percent.

15. Recommendations

This paper has determined the technological economic, human resource and organisational challenges of Knowledge identification, acquisition, sharing and application in SMEs. Identifying the challenges will help in establishing a course of action. The recommendations here would be to first, have Public Private Partnerships (PPP) so that the issues of finance (economic aspect) could be solved. Government should ensure that SMEs get the necessary support on the political and social front by offering a good operating business environment by putting in place good legislation that help with SMEs. To establish whether or not the organisational structure of SMEs is a challenge to Knowledge Management was also a challenge identified by the SME operators so helping the startup SMEs with skills in the form of workshops and conferences on how to organize their affairs would be one way of helping. The teaching of basic business skills should also be a priority so that the SME operators know some soft skills. Additionally, to counter economic, social or political conditions that are a challenge in implementing Knowledge in SMEs in a selected city in Zambia, government should introduce the small business credit schemes so that beneficiaries can use them to run the small and medium enterprises (SMEs) and if there are difficulties in sourcing funds, government may partner with private organisations in Public Private Partnerships as mentioned earlier. Government, Ministry of Commerce, Trade and Industry and other non-governmental organizations should regularly organize seminars for potential and actual small and medium enterprise operators where they should be educated and have knowledge managed on how to plan, organize, direct and control their businesses.

16. Conclusions

The results of Knowledge Management in big organisations may not necessarily be equalled to smaller organisations or companies like SMEs. SMEs may experience some challenges in effectively carrying out Knowledge Management thereby not necessarily yielding the same results as those in bigger organisations. The study may further assist in the field of Knowledge Management by showing that the area where the organisation where Knowledge Management could be implemented and the conditions and the environment of the organisation may affect the results of Knowledge Management. The study may assist scholars of Knowledge Management by coming up with structures of Knowledge Management that may be fitting to SMEs as opposed to those being used by big organisations.

17. References

- Bowen, M., Morara, M. & Mureith, S. (2009). The Management of business challenges among small and micro business enterprises in Nairobi, Kenya, *KCA Journal of Business Management*: vol 2, No 1 2009, and pp.16-31.
- Chisala, V. (2007). Economic policies for growth, employment and poverty reduction: case study of Zambia, UNDP, Lusaka.
- Chisala, BS. 1994. The downfall of President Kaunda. Lusaka: Steliza.
- Durst, S. & Edvardsson, I.R., 2012. Knowledge management in SMEs: a literature review. *Journal of Knowledge Management*, 16(6), 879-903.
- Gold AH, Malhotra A and Segars AH (2001) Knowledge management: an organizational capabilities perspective. *Journal of Management Information Systems* 18(1), 185–214.
- Hashi, I & Krasniqi, B.A (2011). Entrepreneurship and SME growth: evidence from advanced and laggard transition

economics. *International Journal of Entrepreneurial Behaviour & Research* Vol. 17 No 5, 2011 pp.456-487.

Kluge, J., Stein, W. & Licht, T. (2001) *Knowledge Unplugged*, Palgrave, Basingstoke, Hampshire.

Krogh, G., Nonaka, I. & Aben, M. (2001). Making the most of your company's knowledge: *A strategic framework. Long Range Planning*, 34:421-439.

Liebowitz, J. (1999), "Key ingredients to the success of an organization's knowledge management strategy", *Knowledge and Process Management*, Vol. 6 No. 1, pp. 37-40.

Megdadi, Y.A.A, Al-Sukkar, A.S.M.& Hammouri, M.A.J. (2012) "Factors and Benefits of Knowledge Management Practices by SMEs in Irbed District of Jordan: An Empirical Study", *International Journal of Business and Social Science* Vol. 3 No. 16 [Special Issue – August 2012].

McLaughlin, S. and Paton, R. A. (2008) Identifying Barriers that Impact Knowledge Creation and Transfer within complex organisations. *Journal of Knowledge Management* 12 (4).

Mbonyane, B & Ladzani, W (2011). Factors that hinder the growth of small businesses in South African Townships. *European Business Review* Vol. 23 No 6, 2011 pp.550-560.

Nasimi, M.H., Nasimi, S., Kasmaei, M.S., Kasmaei, H.S., Basirian, F. & Musapour, H. (2013). Knowledge management and competitive advantage for organizations. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 2(5), 56-64.

Parkinson, A & McBain, R. (Eds). (2013). *Managing People*. London. Sage Publications Ltd.

Paton, R.A & McCalman, J. (2008). Change management: a guide to effective implementation. Sage. Los Angeles. No 5, 2009 pp. 257-270.

Rahimli, A. (2012). Knowledge management and competitive management. *Information and Knowledge Management*, 2(7), 37-43.

Rasula, J., Vuksic, V. B.& Stemberger, M. I. (2012). The Impact of Knowledge Management on Organisational Performance. *Economic and Business Review*, 14 (2): 147-168.

Szulanski, G. *Strategic Management Journal*, Vol. 17, Special Issue: Knowledge and the Firm (Winter, 1996), pp. 27-43.

The Zambia Development Act No. 11 of 2006, 69. Government Printers.

Tiwana, A. (2002). The knowledge management toolkit: orchestrating IT, strategy and knowledge platforms. Prentice Hall. USA.

Wai Yip, M, Ng, A.H.H & Lau, D.H.C. (2012). Employee Participation: Success Factor of Knowledge Management. *International Journal of Information and Education Technology*, Vol. 2, No. 3.

Wong, K.Y. (2005), Critical success factors for implementing knowledge management in small and medium enterprises, *Industrial Management & Data Systems*, Vol. 95(3), 261-279.