A Spider-Web Re-engineering Methodology for the Development of Agrarian SMEs in Zimbabwe

N Munyawarara[a] and K K Govender[b]

[a] School of Management, UKZN, South Africa

[b]School of Management, IT and Governance, University of KwaZulu-Natal

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Abstract: The truncated development of agrarian SMEs in Zimbabwe has compelled researchers to come up with effective strategic management frameworks that promote their development.The broad objective is to determine the extent to which a spider web re-engineering methodology (SWRM) develops agrarian SMEs in Zimbabwe. A survey was conducted using a questionnaire to gather data from 100 agrarian SMEs, using purposive sampling technique. The findings revealed that there is positive relationship between a spider web re-engineering methodology and the development of agrarian SMEs. It was ascertained that agricultural SMEs are under performing due to lack of effective strategic management approaches which stimulate their radical development. Thus, the findings reveal that the development of SMEs is highly dependent on an effective SME re-engineering methodology which would contribute to transforming the SMEs into transnational companies.

Keywords: Agriculture, SMEs, Re-engineering, Development

1. Introduction

In management science evolution, there are various re-engineering workflow approaches which are used to influence the growth of businesses. Hence, there is need to develop an SME re-engineering methodology specifically to catalyse their development (Aldakhil, 2016). This claim is consistent with several studies which were undertaken over the years on re-engineering processes which can be applied to stimulate radical growth (Rizal, 2017). In this view, however agricultural SMEs in the developing world lack an effective re-engineering methodology which can be applied to stimulate their sustainable development (AGRA, .2016). This study therefore finds it proper to develop a proper re-engineering methodology suitable to sustain their development. In this study, the ideation of a re-engineering framework was first introduced by Hammer (1990) in seeking to revamp companies so that they overcome stiff competition dominating the business world every day (Irungu & Arasa, 2017).This strategic management approach is more appropriate and will drive businesses to survive into the foreseeable future (Aldakhil, 2016; Verboncu, 2013; Moyo & Mandizwidza-Moyo, 2017; Meyer & Meyer, 2017).

Mahjoor (2016) opines that a re-engineering process generally revolves around redesigning to revitalize SME workflows, to eliminate poor and traditional operating systems which fetter their growth and in a way it improves their performance (Verboncu,2013;Nnamseh & Akpan,2015; Cant & Wiid, 2016; Bokor,2017). From this perspective, the major aim of a re-engineering process is therefore to make SMEs think up new ways of organizing their operations so that they realize sustainable development (Bokor, 2017).The objective of this study is to develop an SME re-engineering methodology and determine its relevance for the development of agrarian SMEs.This is prudent because the Zimbabwean agrarian SMEs need to be exposed to emerging and effective modern management approaches (Chikere & Nwoka, 2015).

In light of the above, it is hypothesized that:

H1: A spider web re-engineering methodology has significant relationship with agrarian SME development.

2. Literature Review

Theoretical Framework

In this study, the re-engineering process involves a conceptual dimension of recreating a SME to radically grow and develop. The studies done by Rizal (2017) and Amin, Majid & Farzad (2016) argue that a re-engineering process paradoxically is a collection of activities that take one or more kind of inputs to create an output that is of value to customers. This re-engineering strategic management thrust challenges old assumptions and encourages SMEs to break away from conventional operating methods and drives their vision into reality, since this workflow process is structured to produce for a particular sector in the economy and breakeven, to realise profitable returns (Martinsons, Davison & Huang, 2017 ; Dzinotizei,2019). In this study, it is a modeling tool that seeks to improve agricultural SME competencies associated with their survival and positive growth trends (Amin, Majid & Farzad, 2016; Aldakhil, 2016; Ifekwem &Adedamola, 2016; Anicic, Vukotic & Krstic, 2016; Irungu & Arasa, 2017). Thus, a re-engineering methodology for agrarian SMEs involves innovativeness, effective management and risk-taking abilities which are essential in revamping their activities to be competent to grow into transnational companies (Moyo & Mandizwidza-Moyo, 2017; Meyer & Meyer, 2017; Bokor, 2017).

Conceptual Framework

This study resulted in the development of a spider web re-engineering methodology/framework, supported by Rizal (2017) and Amin, Majid & Farzad (2016), so that the researcher is able to investigate the extent to which it influences the development of agricultural SMEs in Burma Valley, Zimbabwe. Its main concern is to revamp agrarian SMEs using a twin pronged re-engineering methodology, so that they improve their internal and external environments and are able to increase their performance and realise their radical development (Durendez, Ruiz-Palomo, Garcia-Perez-de-Lema & Dieguez-Soto, 2016). It is against this background that SME re-engineering involves rigorous structural transformation in order for them to improve work flow systems and be productive. The conceptual framework is indicated in Figure 1 below presenting how the main variables are related (Dzinotizei, 2019).

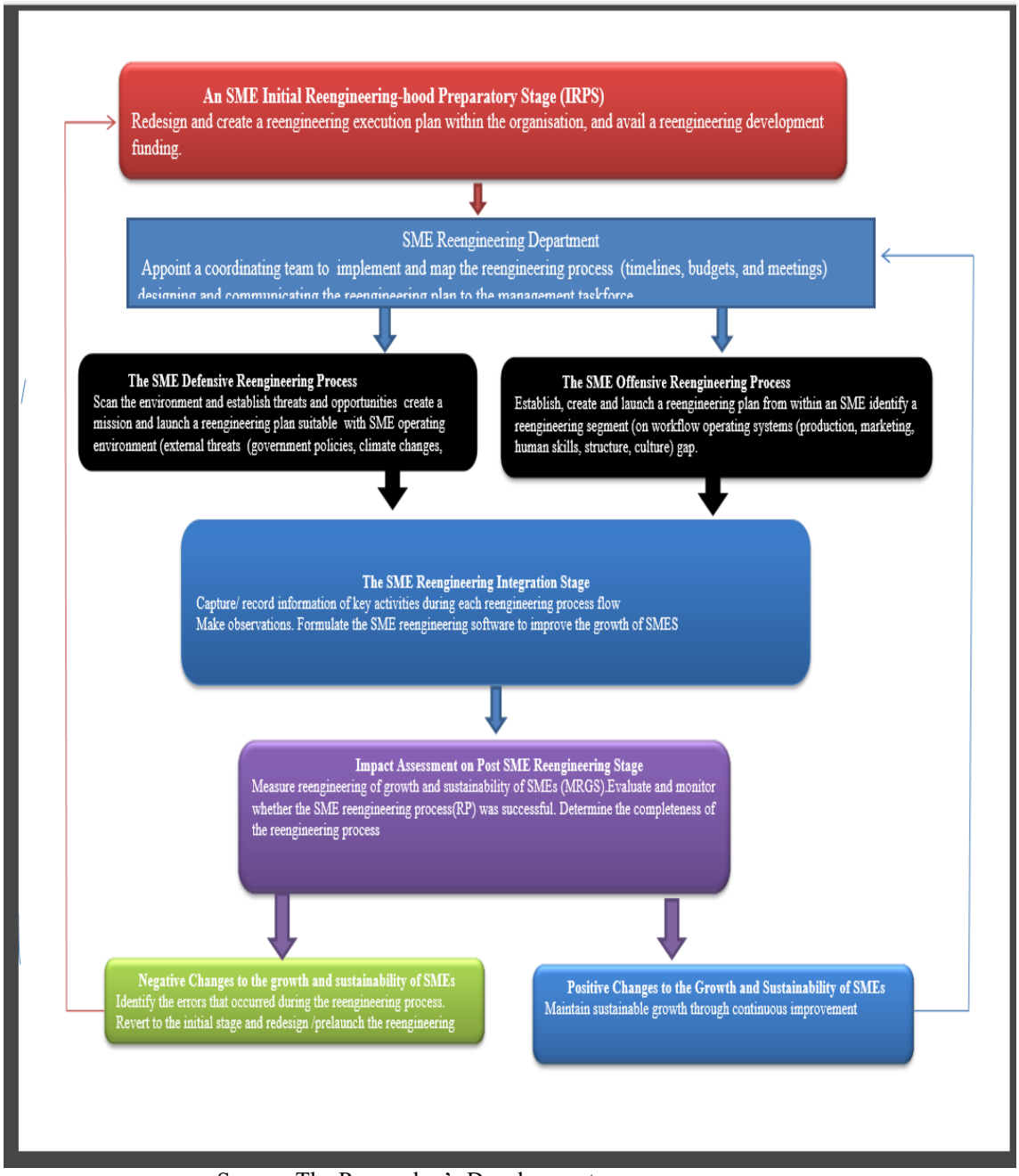
Figure 1: A Spider Web Re-engineering Framework

Spider Web Re-engineering Methodology

The spider web re-engineering methodology is a strategy which encompasses improving existing operations through disruptive SME innovations (Martinsons, Davison & Huang, 2017). It highlights the Hammer and Champy, Davenport and the Enterprise ontology re-engineering processes through disrupting illegal SME activities, promotes SME formalization and encourages effective management systems (Moyo & Mandizwidza-Moyo, 2017). Its building blocks transform SMEs into transnational companies and promote consistency in workflow systems.

As depicted in Figure1, this spider web re-engineering methodology is a twinned (defensive and offensive) re-engineering process which promotes internal and external re-engineering approaches to turnaround the growth and sustainability of agrarian SMEs (Rizal ,2017) as indicated in the Figure 2 below.

Figure 2: A Spider Web Re-engineering Process Flow



Source: The Researcher's Development

In the field of management, it is a strategic fit considered critical and valuable in stimulating the development of agrarian SMEs. This is briefly discussed below.

As reflected in Figure 2, the re-engineering framework comprise of an initial re-engineering preparatory stage, where a re-engineering vision is born and a plan is drawn to create a re-engineering department within the SME structure. Once set up, a re-engineering taskforce (team) draws (timelines, budgets, and meetings) designing, implementing and communicating the re-engineering strategy to be applied through coordination and support of the entire re-engineering program (Bokor, 2017; Aquila, 2017).

The taskforce simultaneously runs the re-engineering department using two distinctive re-engineering processes, which are defensive and offensive re-engineering strategies (Ifekwem, & Adedamola, 2016). The defensive re-engineering process scans the environment to establish threats and turn them into SME opportunities. This is done by creating the mission, vision and plans in the re-engineering department in tandem with the prevailing operating environment (government policies, climate changes, banks, regulating authorities, consumers and challenges) (Saberi & Hamdan, 2019).

The defensive re-engineering strategy is insulated by the offensive re-engineering process (an internal process of re-engineering), which helps to identify a re-engineering segment within the SME, by analysing workflows and operating systems (inputs, production, marketing, human skills, structure and culture. The weaknesses are eliminated to buttress workflow systems as a measure to improve the development of SMEs. According to Rizal (2017) and Bhaskar (2016), the re-engineering integration stage is important in capturing and recording information and other key activities to be completed during each re-engineering phase. The key to this,

is to make critical observations of any changes that might take place during re-engineering, to assist in the crafting of agrarian SME re-engineering software suitable for implementing the re-engineering process to be successful (Ighiebembe, 2016; Aquila, 2017).

The post SME re-engineering assessment stage measures the impact of re-engineering on the growth and sustainability of SMEs (Rizal,2017). This is done by evaluating and monitoring whether the SME re-engineering twined processes were successful or not. All this is done to determine the completeness and effectiveness of the re-engineering process. From this assessment criteria, if any positive changes are identified, it is therefore critical to maintain a continuous improvement system to further grow, sustain and develop SMEs. In contrast to this noble approach, if there is a negative or no changes realised during the re-engineering process, it is highly advised that the re-engineering taskforce identify errors that occurred during the re-engineering phases (Ighiebembe, 2016).

If issues are raised, it is recommended that the department goes back to the pre stage and redesign and re-launch the re-engineering process, until the growth and sustainability of SMEs is realised. This proposed re-engineering methodology is recommended since it is conceived with a variety of answers to SME challenges, and is simple and easily applicable to radically stimulate the growth and sustainability of any organization (Razalli et al., 2015).

SMEs in the Agrarian Sector

The SMEs in the agricultural sector provide for food in poor communities and the agricultural sector classifies an SME as a food provider (Aldakhil, 2016). However, the agrarian SME activities include provision of pesticides, chemicals and particularly mechanization, farming cash crops and cattle poultry rearing. According to FAO (2017), SMEs in the agricultural sector are defined as informal entities offering goods and services, and help to attain food security at household levels. Some countries use the term SMEs differently as small, micro and medium enterprises having varied number of employees, annual sales turnover, agricultural sector sets and capital. The poor development of the agricultural sector led to calls of developing an SME re-engineering methodology because these SMEs play an important role in providing decent livelihoods in communities and they contribute about 60% to the economy (Bomani et al., 2015).

In Zimbabwe, in general, SMEs are believed to be the backbone of its economic development. They account over 90% to the economy, implying that Zimbabwe is largely an SME driven economy with agriculture being the leading sector (Cloete, 2013; Anicic et al, 2016; Government of Zimbabwe.2018.). SMEs in the agrarian sector therefore have a huge impact on the economic growth and development of agriculture and industries (Durendez et al., 2016; Anicic et al., 2016; FAO, 2017). The Ministry of the SME sector grouped Zimbabwean SME's into micro, small and medium entities. However, SMEs are those with sales turnover of less than 5000 dollars or less than 5 full-time employees. Given that there have been many developments in the economy, a review of the definition agricultural sector undertaken in 2013 and a new SME definition agricultural sector endorsed by Harare authorities to mean indigenous owned businesses (Government of Zimbabwe, 2018).

It is against this backdrop that the researchers aimed to find out the extent to which the SME spider web re-engineering methodology would influence the development of the SMEs in Burma Valley, Zimbabwe (Anicic et al., 2016). In line with the aim of this paper, the research methodology is presented in the next section.

Research Methodology

Using purposive sampling to target participant for this quantitative study (Bacon-Shone, 2020), 100 questionnaires were distributed to SMEs (Aggarwal & Ranganathan, 2016). For the purpose of achieving the aim of this paper, a survey design was adopted. It should be noted that quantitative analysis have been used in other studies on agrarian SME sector research (Apuke,2017). These include studies on SME management (Moyo & Mandizwidza-Moyo, 2017), and challenges being faced by SMEs (Cant & Wiid, 2013; Aggarwal & Ranganathan, 2016) ,just to mention a few.

Findings and Discussion

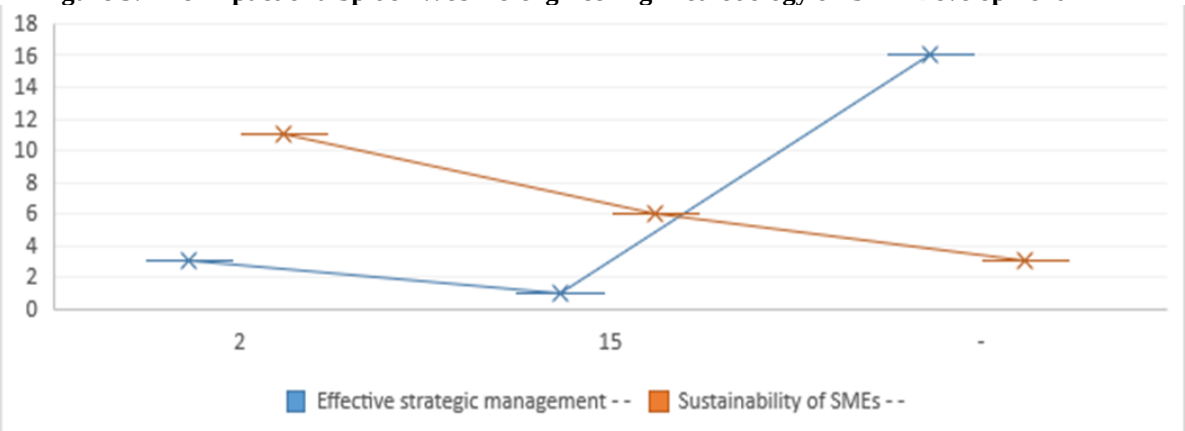
The following findings were made in this study after subjecting the responses elicited from the respondents to statistical analysis (Aggarwal & Ranganathan, 2016). It was ascertained that of the total number of 100 SMEs surveyed, 96 respondents agreed that the spider web re-engineering methodology is suitable in redesigning internal and external workflow operating processes to stimulate the development of agricultural SMEs. However, 43 (38%) of the responses agreed that SMEs are not utilising the re-engineering methodology in stimulating their development. This study reveals that business process re-engineering enhances the performance of SMEs through the use of twined methodology (offensive and defensive re-engineering approaches) in volatile environments, as it encourages their imminent growth (Mahjoor, 2016; Durendez et al., 2016).

This finding is supported by findings by Bhaskar (2016) and Bokor (2017), who reported that the re-engineering methodology is an effective instrument for change management to effect business development and of particular are associated with SME workflows to achieve dramatic improvement in their performance (Ighiebembe, 2016; Durendez et al., 2016; Moyo & Mandizwidza-Moyo, 2017). Irungu and Arasa (2017) concurred that re-engineering has become a useful weapon for SMEs that seek to improve their operations to achieve competitiveness and market share growth.

Influence of a Spider Web Re-engineering Methodology on SME Development

The results of a review of existing literature shows that SME development, in terms of success or failure (Moyo & Mandizwidza-Moyo, 2017) in agricultural sector, would depend on a spider web depend on a spider web re-engineering methodology as illustrated in Figure 3.

Figure 3: The Impact of a Spider Web Re-engineering Methodology on SME Development



The results indicate that SMEs in the agrarian sector would positively respond to the proposed SME re-engineering methodology resulting in their sustainable growth (Veronica, 2013; Rizal, 2017).

A Test of the Hypothesis

According to Aggarwal and Ranganathan (2016), the test of this hypothesis revealed that the spider web re-engineering methodology has a significant influence on the development of SMEs in the agrarian sector. This implies that if the spider web re-engineering methodology is utilized, drastically change the SME operating structures so that they become more flexible and competent be able to strategically adapt to internal and external challenges (Cant & Wiid, 2013).This finding is in line with the assertion made by Ighiebembe (2016) who noted that change management using the re-engineering methodology has a p value of 0.05, which is a level of significance suitable to enhance their development (Wangombe,2013).

Discussion

According to Bhaskar (2016), re-engineering is multidimensional in nature as it integrates different operating systems to improve performance and it is more beneficial in empirical studies. Therefore in this study, re-engineering process of SMEs reveals unique and important information on how it has positive impact on growing small businesses. Thus, the combination of the re-engineering spider web methodology provides a detailed description of agricultural sector development. Most importantly since SMEs vary in size, it is important to understand why a spider web re-engineering methodology is needed at different stages of SME development. Many researchers have developed different re-engineering frameworks to examine businesses but these were criticized, due to their limitations in stimulating the development of SMEs. The previous re-engineering processes were deemed to be inappropriate for SMEs due to the fact that that they are suitable more for large companies, whereas this re-engineering methodology characterizes SME development (Mahjoor, 2016; Rizal, 2017). Due to suitability of this framework in re-engineering SMEs, this research investigated the impact of a spider web re-engineering methodology in influencing the development of SMEs.

Conclusion

From a discussion of the findings, the following conclusions are drawn, namely, that the development of SMEs depends greatly on internal and external re-engineering methodologies. The study concludes that previous academic research on the impact of re-engineering SMEs is very limited or non-existent. The main theoretical contribution of this paper is the spider web re-engineering methodology which after a careful assessment, is recommended for Zimbabwean agrarian SMEs if they want to grow their businesses. This is derived from the fact that the framework is a twin-double spiked approach that effectively deals with both offensive and defensive tactics which are ideal in radically growing SMEs in a contracting or expanding economy. Moreso, the framework shows that it will sustain SMEs through effective strategic management.

Recommendations

Having discussed the findings and drawn some conclusions therefrom, the following recommendations are made:

- SMEs are encouraged to use the proposed SME re-engineering methodology which will improve their performance and productivity leading to their radical growth.
- It is recommended that the spider web re-engineering framework be used by the Zimbabwean start-ups in championing the internal and external restructuring of SMEs to positively grow.
- Management of these organizations should focus their attention on rewarding and recognizing the employees; involving them in decision making process; creating promotion and opportunity for developing while redesigning process will enhance their satisfaction and retention.

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