

# **Assessment of Strategic Management Practices in Small Agribusiness Firms in Tanzania**

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## List of Abbreviations

AGE	Firm age variable
AVE	Average Variance Extracted
BRC	British Retail Consortium
CR	Composite Reliability
CSDI	Center for Sustainable Development Initiative
EXP	Level of managerial skills and expertise - variable
FIMIX-PLS	Finite Mixture Partial Least Squares Approach
FORM	Formalization status of a business firm -variable
FUNDS	Access to external funds - variable
GLIMPSE	Government, Losses and wastage, Infrastructure, Markets, Politics and policies, Science and innovation; and Environment.
GLOBALG.A.P	Independent certification system for Good Agricultural Practice
HCM	Hierarchical Component Model
HODECT	The Horticultural Development Council of Tanzania
IFAMR	The International Food and Agribusiness Management Review
INFO	Access to market information – variable
INFRA	Access to public infrastructure - variable
INPUT	Extent of input availability
INVEST	Level of firm investment - variable
IPMA	The Importance–Performance Matrix Analysis
MAP	Monitoring Agri-trade Policy
MoFEA	Ministry of Finance and Economic Affairs
NBS	National Bureau of Statistics
NSGRP	National Strategy for Growth and Reduction of Poverty
PERF	Firm performance variable
PLS	Partial Least Squares
PLS-SEM	Partial Least Squares Structural Equation Modeling
RBT	Resource Based View
RBV	Resource Based Theory
SEM	Structural Equation Modeling

SIDO	Small Industries Development Organizations
SIZE	Firm size - variable
SMEs	Small and Medium sized Enterprises
STM	Strategic Management
TZ	Tanzania
TZS	Tanzanian Shillings (currency)
URT	United Republic of Tanzania
USD	United States Dollars (currency)
VAF	Variance Accounted For
VIF	Variance Inflation Factor

## Summary

Strategic management (STM) is recognized as an important element for firms' success; however, small firms, especially in agribusiness, have widely been overlooked because it is often thought that a systematic STM is exclusively for large corporate firms. Firms engage in STM practices such as environmental analysis, formulation of mission and vision statements, strategic planning, implementation, evaluation, etc., regardless of their size. The firms need to work out strategic plans to exploit the existing market, but past research shows that they differ in their capacity to implement and manage strategies. Whether or not they implement, the ability depends on the features of the firm itself, its resources and the conditions in the external environment. However, the need of STM practices for small firms is not well understood and the determinants for its successful application in small firms are not evidently known. With regard to African agribusiness firms, there is scant research on how the environmental factors determine the application of STM practices. Hence, using empirical data from 229 firms in Tanzania, the study conducts partial least squares structural equation modelling (PLS-SEM) analyses to estimate a model of the determinants of STM application that leads to firm performance, a mediating effect of STM application and a multigroup analysis by application of finite mixture PLS technique (FIMIX-PLS). Lastly, a case study is given to demonstrate challenges facing agribusiness firms in Tanzania.

In the first part of the analysis (Chapter two), the study explores to what extent the application of STM practices is affected by internal and external factors of the firms. Ideas from resource-based theory (RBT) and industrial organization (I/O) are used to build a conceptual model and formulation of hypotheses. Results show significantly that better strategic actions reside in the capabilities of firm managers, whereas many external factors, such as access to public infrastructure, did not turn out to have a significant influence. Application of STM was more prevalent in firms with extra access to funds. Hence the study calls on policymakers to accelerate, promote and advocate for more supportive services such as accessible financial services as well as managerial training programmes. Impacts of other factors are explained in detail. The findings have interesting implications for the management of agribusiness firms in African countries and other developing and emerging economies.

In the second part of the analysis (Chapter three), a mediation analysis is performed to demonstrate the role of strategic management in facilitating effective use of resources to achieve performance. Using ‘level of managerial expertise’ and ‘access to market information’ as primary resources, this research presents various arguments about their contribution to firm performance. Results indicate that the investigated resources alone do not directly contribute to firm performance unless there is an application of strategic management. Further investigation based on multigroup analysis shows three groups of firms which differ in their resources-performance relationship. The results imply that the small firms’ paths to achieve performance are different hence managers ought to identify a fit between their resources and strategic actions in order to improve the firm performance. The study provides manifold managerial implications for small firms that seek to improve firm performance. It is useful for small firm managers to apply modern management techniques of firm operations in order to make timely strategic decisions depending on the available resources.

Lastly, the case study explains challenges that can affect achievement of firms’ strategies for agribusiness firms in Tanzania (Chapter four). Some of these challenges include: stringent business regulations, poor availability of storage facilities, poor infrastructure, inability to penetrate international markets, poor progress in the implementation of policy recommendations and poor collaboration between scientist, researchers and actors in food supply chains. Considering the challenges, the firms should focus on improving their business skills, engage in public-private partnership programs and communicate policy shortfalls to the government.

Overall, this study provides an early inquiry into small firms’ STM application. More progress surrounding the application can be further explained with the help of in-depth case studies and analyses of longitudinal data.

# Chapter One

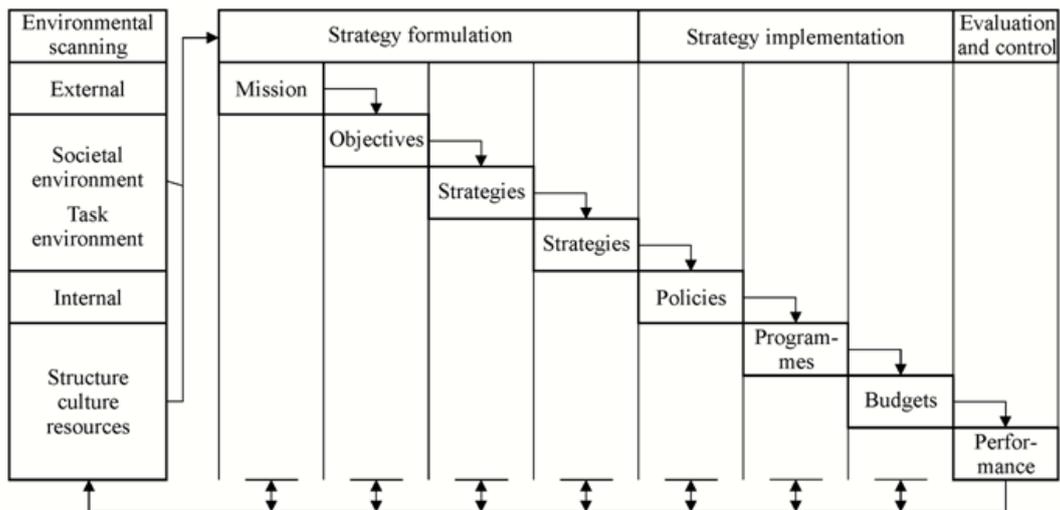
## 1 General Introduction

### 1.1 Background Information

#### 1.1.1 Role of Strategic Management and its Role on Attainment of Firm Objectives

Strategic management (STM) has become an essential managerial tool for business firms in today's competitive environments (Grant, 2013). It involves a set of decisions and actions that determine the long run performance of a firm. Its practices include environmental analysis, strategy planning, implementation, evaluation and control (Wheelen & Hunger, 2012) (Figure 1-1). The strategic management process helps managers to focus on opportunities for growth, react to competitors' actions and better utilize firm resources. STM also provides firms and employees with a clear direction for future developments to achieve performance goals. Moreover, it reduces risks of unforeseen problems around firms' environment.

**Figure 1-1: Wheelen and Hunger's Strategic Management Model**



(Wheelen & Hunger, 2006)

The value and importance of STM practices has been recognized and comparatively appreciated. Since its evolution strategic management has been directed towards facilitating organizational responses to the environment (Andrews, 1971; BCG, 1968). Firm managers are encouraged to develop a certain way of thinking that enables them to understand opportunities from environmental situations, and eventually make decisions that lead to performance (Steiner & Miner, 1977). In later and current years, many researchers have looked at the link between STM practices and firm performance (Andrews et al., 2006; Beaver 2002; Bracker & Pearson 1986; Chen, 2005; Dibrell et al. 2014; Georgellis et al., 2000; Stacey, 2011) while indicating a positive link and suggesting several contributing factors.

### ***1.1.2 Strategic Management in Small Agribusiness Firms in Developing Countries***

Many research studies have focused on the performance of small agribusiness firms in developing economies. This is mainly due to the firms' important impact on net employment, welfare development and poverty reduction (Doern, 2009; Kinda & Loening, 2010). However, current practices on how small firms' managers operate are insufficient to improve overall firm performance. Using an example of food processors<sup>1</sup> in Tanzania, the firms' contribution to the economy of the country is relevant because the food processing industry in the country consists of a large number of small and micro firms<sup>2</sup> operating in both a formal and an informal manner. Several reports indicate that there are weak competitiveness and poor managerial skills (Fafchamps & Quinn, 2012; IFAMR, 2014). Likewise, the firms are faced with several constraints such as poor access to funds, poor public service infrastructure, limited capital availability, poor access to market information, etc. which have imposed challenges for firm managers to achieve their strategies (Dietz et al. 2000; Dinh et al. 2013).

The level of competitiveness of small agribusiness companies in the market is still poor and not improving, despite the fact that the markets for processed food products have been expanding and the demand for food is expected to double within the next 30

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<sup>1</sup> Actors (agribusiness traders) in food supply chains dealing with purchase of raw produce from farmers, food manufacturing, packing, labelling and marketing.

<sup>2</sup> Capital less than 12000 US-Dollars

years (Dietz et al., 2000; Dinh et al., 2013). Furthermore, there are large trade deficits in the agro processing sector and a poor improvement of agro products' quality (Dinh et al., 2013; World Bank, 2012). Several efforts have been made by the governments and private institutions to improve the capacity of managers by providing supporting services such as financial capital, credit guarantees, micro insurance, training, etc. (Dietz et al., 2000; MoFEA, 2010). However, the route of how the managers drive their firm organizations to survive in the markets is not well understood (URT 2007). With this regard, there is a need to investigate in more detail agribusiness management and how the resources are controlled and utilized for the future development of small agribusiness firms (Conforte, 2011). There is a need to take a closer look inside firm operations in order to assess the capability of the firms to plan, implement, evaluate and control their strategies. Specifically, it is essential to examine the factors that enable a firm's capacity to do so.

Strategic management practices are often assumed to be exclusively utilized by large corporate firms and considered irrelevant for small business firms. However, previous studies indicate its importance to small firms as well (W. Anderson, 2012; Biggs & Shah, 2006; Doern, 2009; Edelman, Brush, & Manolova, 2005; Edelman & Brush, 2001; Kinda & Loening, 2010). The studies highlighted the huge importance of 'strategy' to enhance small business growth. The applicability of strategic management to small firms was found to be scanty and small firm managers refuse to embrace the strategic management process due to the following reasons:

- (1) It is a time consuming process compared to the day to day firm operations activities;
- (2) The managers are not well enough educated to know the terms used in STM tools such as business plans, balance sheets, cash flow, profit and loss statements, etc.
- (3) There is a negative perception in paying for extra interventions such as business consultants or training programs (considering the limited resources and capital availability of small firms) (Beaver, 2007).

As a result, the firms fail to perform due to their inability to manage, for instance, growth and accounting procedures. Furthermore, many companies are characterized by a poor strategy to reach the customer due to a lack of transparency of the exchange of

business information between managers and employees, a wide-spread failure to develop control systems, and many more. Contemporary research has indicated repeatedly that strategic thinking and planning are strongly related to small firm business performance (Beaver, 2002, 2007).

In Tanzania, there are large numbers of small processing enterprises that are either registered or not registered and mostly invisible to statisticians. The food production premises are ever-changing. For example small firm workers may sort, pack, label and sell fruits, vegetables, rice, maize and other cereals in the owners' backyards, in a temporary (half-built) production facility or in a permanent production facility (Dietz et al., 2000). The situation has not changed much over the years and is quite similar to other developing economies in Sub-Saharan Africa (Byerlee et al., 2013; World Bank, 2012). The firms sell their products primarily to domestic markets while trying to meet customers' demands and at the same time attempting to penetrate global markets. Despite their efforts, these firms encounter challenges in implementing strategies due to limited capital compared to larger companies. These challenges are related to their limited firm size and experience. Other challenges are due to limited availability of resources such as low investment level, limited access to market information and low level of managers' expertise. Moreover, pressures from the external environment such as input availability, access to funds, and access to public service infrastructure are factors that can push or hinder firms' ability to strategize. Considering the industrial organization and resource-based views in the strategic management literature (Grant, 2013), these factors are critical links to implementation of firm strategies and attainment of firm performance.

For the purpose of identifying research gaps, several studies show contradicting arguments for each of the factor's contribution to the effective implementation of firm strategies. But, there is no clear explanation on why some firms of the same nature perform better than others in achieving their strategies while operating in a similar environment. The truth is that we know very little so far about management practices of agribusiness firms (Conforte, 2011) and how they differ in their capacity to implement and manage strategies. All in all, our current understanding of the small firms' attainment of strategies is limited, especially with regard to small agribusiness firms in developing economies.

## 1.2 Research Objective

The first research objective is to explore strategic management practices of agribusiness firms (using a sample of *food manufacturers and processors*) in order to understand to what extent their application is affected by internal and external factors of the firm environments. The study (see Chapter two) employs ideas from the resource-based theory (RBT) and industrial organization to create a conceptual framework<sup>3</sup> and bring out critical factors that enhance a fit between a firm's internal and external situation, its STM practices and firm performance. Since existing literature shows contradicting arguments about the determinants of the successful application of STM practices, several hypotheses are formulated and tested. The findings will provide practical knowledge for agribusiness firms in managing their daily operations, especially now that with constant emergence of new markets there is much more exposure to competition. The firm managers will be informed on better STM tools applicable in their environment, as many of them have limited experience in running an enterprise. Furthermore, the country of research is now focusing on the transformation of small and medium-sized enterprises (SMEs) from traditional into modern professional commercial firms (URT, 2010).

The second research objective is to perform further analysis to demonstrate the role of strategic management in facilitating an effective use of resources to achieve performance (see Chapter three). This is because previous studies have shown the critical link between resources and success but other studies indicate that resources alone cannot contribute towards firms' success; instead they highlight the connection between the availability of resources and firm strategy and its management. Technically, we will apply mediation analysis to investigate the relationship between firm resources, strategic management practices and firm performance. The analysis will further reveal differences among firms regarding the deployment of firm resources such as managerial skills and market information. Due to the fact that the small firms and their paths to achieve sustainable growth are different, the findings will suggest alternative paths to sustainable success. Therefore, managers are encouraged to carefully utilize the strengths of their resources and develop related strategies to gain high returns. Since the food processing sub-sector is a large component of the manufacturing industry, especially in the

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<sup>3</sup> See Figure 2-1 Chapter two.

developing economies, any improvement will have an important impact on the competitiveness of the agribusiness sector as a whole.

The third research objective is to identify challenges facing agribusiness firms in Africa in achieving their strategies. An empirical example is given by demonstrating a short case study from Tanzania (Chapter four).

## **1.3 The Sample**

### ***1.3.1 Descriptive Statistics of the Sample***

The sample consists of 229 firms dealing with food processing of cereals (65.9%), vegetables (16.4%) and fruits (11.5%), located in Arusha, Dodoma and Tanga regions in Tanzania<sup>4</sup>. It was collected between May and August, 2013 through a cross sectional survey. Data was collected through interviews with firm owners and managers with an aid of a structured questionnaire. The selection of food processors followed a random sampling technique. In general, the firms have a mean capital investment of 26.94 million TZS ( $\approx$  16,600 US\$<sup>5</sup>) and an average of 7<sup>1/2</sup> years of business operations. The respondents of this study were both owners and managers of the firm or a manager in charge. They were knowledgeable about general overview of the firms and cornerstones of their strategies. The respondents' ages ranged from 18 to 78 years (average: 43 years), with an average of 11.05 years of school education.

Table 1-1 indicates further details of the characteristics of the interviewer (i.e. the firm owner-manager) and the firm. The data presents a brief summary of our raw data. It does not however indicate whether these differences have statistical significance.

### ***1.3.2 Status of Strategic Management (STM) Practices***

The application of strategic management (STM) practices is indicated as a key variable in all structural model analyses performed in Chapters two and three. The variable includes a total of 17 statements that are condensed to four categories of STM practices; (1) environmental analysis, (2) strategy planning, (3) strategy implementation

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<sup>4</sup> See Appendix 1-2: Study Area

<sup>5</sup> 1USD=1,623TZS exchange rate prevailing on 1<sup>st</sup> August 2013 [www.bot-tz.org](http://www.bot-tz.org)

and (4) strategy evaluation and control. The managers were asked to rate the application of these STM practices on five point Likert scales of 1 to 5.

**Table 1-1: Descriptive Statistics**

Variables	Application of STM practices $\bar{x}$ (s)					Total STM score $\bar{x}$ (s)
	% of full sample	Environmental analysis	Strategy planning	Strategy implementation.	Strategy control & evaluation	
Overall	100%	3.47 (1.19)	3.28 (1.14)	3.21 (1.09)	3.31 (1.22)	<b>3.32</b> (1.09)
<b>Firm location</b>						
Region 1 (Arusha)	27.1%	3.28 (1.02)	3.19 (0.98)	3.19 (0.96)	3.28 (1.07)	3.21 (0.95)
Region 2 (Dodoma)	45.9%	3.91 (1.03)	3.65 (0.98)	3.60 (0.94)	0.82 (17.23)	3.72 (0.91)
Region 3 (Tanga)	27.1%	2.92 (1.35)	2.76 (1.29)	2.57 (1.17)	2.65 (1.33)	2.75 (1.22)
<b>Education level (3 groups)</b>						
Years of education ; Low (below 11 years)	34.5%	3.03 (1.24)	2.86 (1.12)	2.76 (1.09)	0.35 (16.16)	2.88 (1.09)
Middle (between 11 and 12 years)	34.1%	3.79 (1.02)	3.53 (1.02)	3.51 (0.99)	3.60 (1.14)	3.61 (0.95)
High (above 12 years of education )	31.4%	3.61 (1.19)	3.48 (1.14)	3.39 (1.05)	2.01 (12.13)	3.49 (1.09)
<b>Age of owner manager</b>						
Young managers _38 years and below	36.8%	3.50 (1.03)	3.31 (0.94)	3.28 (0.89)	2.03 (11.34)	3.36 (0.89)
Middle aged managers _ 39 to 47 years	30.9%	3.39 (1.33)	3.14 (1.27)	3.15 (1.20)	0.33 (17.34)	3.23 (1.22)
Older managers_ 48 years and above	32.3%	3.50 (1.25)	3.37 (1.18)	3.20 (1.21)	3.39 (1.26)	3.36 (1.17)
<b>Age of firm (years)</b>						
Young firms_ $\leq 4$ years	36.8%	2.86 (1.27)	2.70 (1.16)	2.51 (1.04)	1.22 (11.95)	2.69 (1.10)
Middle aged firms _ 4 < X $\leq 8$ years	30.9%	3.58 (1.08)	3.39 (1.05)	3.34 (0.97)	3.38 (1.08)	3.44 (0.98)
Old firms_ > 8 years	32.3%	3.95 (0.99)	3.74 (0.96)	3.78 (0.90)	1.05 (17.31)	3.82 (0.89)
<b>Core product category</b>						
Cereals	65.9%	3.56 (1.09)	3.32 (1.07)	3.24 (1.02)	3.37 (1.15)	3.37 (1.00)
Fruits	16.4%	3.19 (1.43)	3.13 (1.29)	3.07 (1.26)	3.15 (1.43)	3.13 (1.29)
Vegetables	11.5%	2.96 (1.33)	2.94 (1.38)	2.89 (1.31)	2.86 (1.38)	2.93 (1.32)

**Notes:**

Mean values are shown with standard deviations in parentheses. Score values of the application of STM practices (4 categories), the mean values range between 1 and 5, where 5 is the highest score.  $\bar{x}$  (s) - Mean (standard deviation).

Table 1-1 indicates that the average score on the application of STM is 3.32 (s =1.09), whereby 1 is the lowest and 5 the highest score; however, the scores vary according to the characteristics of the firms as well as of the manager. For example; summary on firm location shows that firms located in Tanga region scored less in the application of STM practices compared to firms located in other regions i.e. Arusha and Dodoma. Summary of other scores are shown with respect to education level, age of the firm, product variety, etc.

Furthermore, we ran a correlation analysis to get a preliminary idea on direction of the relationships between STM practices and factors from the internal and external environments of the firm. The analyses indicate a series of weak and strong relationships between the variables. Therefore, before analyzing our structural equation model (in Chapters two and three), we see that positive correlation exists between STM practices and factors such as; managerial expertise, firm size, formalization status and increase in sales. However, negative association exists with ‘self-financed’ status of the firm ( $r = -0.31$ ), meaning that the firms which generate their growth capital from firm’s income instead of acquiring additional funds from external sources have less ability to apply STM practices. That is why there is a negative correlation with practices such as environmental analysis ( $r = -0.3$ ), strategy planning ( $r = -0.303$ ), strategy implementation ( $r = -0.266$ ) and strategy control ( $r = -0.310$ ). More summary of our data is given in Appendix 1-1.

#### **1.4 Outline of the Dissertation**

The dissertation is structured as follows: Chapter two presents a paper titled ‘*The Impact of External and Internal Factors on Strategic Management Practices of Agribusiness Firms in Tanzania*’. The main research questions are: What is the influence of internal and external factors on the successful implementation of a firm’s strategic management practices? What is the implication of these influences to managerial decisions? In this paper, a conceptual model is developed for the study to test a number of hypothesized relationships by using primary data from the 229 firms in our sample. We apply partial least square – structural equation modeling (PLS-SEM) through *smartPLS 2.0 M3* software (Ringle et al., 2005). Thereafter, an illustration from the importance performance matrix analysis (IPMA) is included in the analysis section to

demonstrate a ‘priority map’ for managerial decisions. The paper was published in the GlobalFood Discussion Paper Series and is currently under review in an international peer-reviewed journal.

Chapter three presents a paper titled ‘*Agribusiness Firm Resources and Performance: The Mediating Role of Strategic Management Practices*’. The paper aims to answer additional research questions: Do strategic management practices mediate the relationship between firm resources and firm performance? Are there significant differences among firms in the role of strategic management practices as a mediating variable? As stated in the previous chapter, we apply partial least square – structural equation modeling (PLS-SEM) to estimate a resource-strategy-performance<sup>6</sup> model for mediation analysis. Thereafter, multigroup analysis is conducted to uncover heterogeneity within the sample by using STM as a mediator variable in the model. We apply FIMIX-PLS technique in conducting the multigroup analysis (Hahn et al., 2002; Sarstedt et al., 2011). The technique is also available in the smartPLS 2.0 M3 software. The paper was published in the GlobalFood Discussion Paper Series and is currently under review for journal submission.

Chapter four presents a paper titled: ‘*HomeVeg Tanzania: Managing a New Strategy amidst GLIMPSE Challenges*’ The paper is written using *case study* research approach. Data was collected primarily by conducting unstructured interviews with the owner and employees of the agribusiness firm under analysis. The production facility of HomeVeg Ltd. was visited between June and July 2013. Basically, the case discusses a journey towards planning and implementing a firm strategy concerning product market entry. Real examples on challenges relating to *Government, losses and wastage, infrastructure, markets, politics and policies, science and innovation, and environment* (GLIMPSE) were given. The case was published in 2014 in the special issue of the International Food and Agribusiness Management Review (IFAMR).

A summary and some concluding remarks follow in the last section of this dissertation. Furthermore, some managerial implications are derived from the empirical results. Limitations of the research approach applied in this thesis and some ideas for future research directions close the dissertation.

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<sup>6</sup> See Figure 3-1 Chapter three.

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**Appendix 1-1: Descriptive and Correlation Statistics**

Variables	$\bar{x}$ (s)	STM practices correlation (sig. 2-tailed)				Total STM
		<i>Environm ental analysis</i>	<i>Strategy planning</i>	<i>Strategy implemen tation</i>	<i>Strategy control</i>	
Managers education (years)	11.05 (3.51)	0.233*** (0.000)	0.272*** (0.000)	0.274*** (0.000)	0.213*** (0.001)	0.283*** (0.000)
Age of owner-manager	43 (10.7)	0.029 (0.670)	0.049 (0.462)	0.004 (0.957)	0.073 (0.280)	0.050 (0.460)
Manager's years of experience in the firm (years.)	6.86 (4.91)	0.376*** (0.000)	0.373*** (0.000)	0.413*** (0.000)	0.416*** (0.000)	0.438*** (0.000)
Proficiency in language of instruction /foreign language (1 = low, 5 = high)	2.93 (1.32)	0.380*** (0.000)	0.391*** (0.000)	0.358*** (0.000)	0.341*** (0.000)	0.418*** (0.000)
Manager's level of expertise (9 = low, 45 = high)	30.69 (7.61)	0.584*** (0.000)	0.513*** (0.000)	0.573*** (0.000)	0.563*** (0.000)	0.612*** (0.000)
Age of firm (years)	7.54 (5.03)	0.401*** (0.000)	0.399*** (0.000)	0.509*** (0.000)	0.499*** (0.000)	0.481*** (0.000)
Number of full time employees	5 (3.41)	0.374*** (0.000)	0.374*** (0.000)	0.359*** (0.000)	0.325*** (0.000)	0.405*** (0.000)
Capital investments (000,000 Tz shillings)	26.94 (51.81)	0.559*** (0.000)	0.505*** (0.000)	0.518*** (0.000)	0.528*** (0.000)	0.545*** (0.000)
Formalization status (4 = low, 20=high)	13.14 (3.60)	0.525*** (0.000)	0.502*** (0.000)	0.562*** (0.000)	0.522*** (0.000)	0.571*** (0.000)
Total number of product varieties	6.61 (1.92)	-0.076 (0.251)	-0.161** (0.015)	-0.079 (0.233)	-0.069 (0.301)	-0.084 (0.205)
Access to production inputs (average score; 1 = low, 5=high)	4.15 (0.75)	0.317*** (0.000)	0.294*** (0.000)	0.324*** (0.000)	0.298*** (0.000)	0.323*** (0.000)
Access to information on raw materials (1 = low, 5 = high)	4.34 (0.94)	0.225*** (0.001)	0.184*** (0.006)	0.138** (0.038)	0.132** (0.049)	0.192*** (0.004)
Self-financed firms (dummy)	0.27 (0.45)	-0.300*** (0.000)	-0.303*** (0.000)	-0.266*** (0.000)	-0.277*** (0.000)	-0.310*** (0.000)
Input availability (average score)	4.12 (0.81)	0.213*** 0.001	0.191*** 0.004	0.224*** 0.001	0.193*** 0.004	0.220*** 0.001
Infrastructure_(availability of power supply) (1 = low, 5=high)	4.40 (0.73)	0.123* (0.064)	0.028 (0.675)	0.002 (0.979)	0.032 (0.634)	0.072 (0.278)
Infrastructure - availability of phone services (1 = low, 5=high)	4.36 (0.80)	0.095 (0.153)	0.018 (0.786)	0.016 (0.806)	-0.039 (0.566)	0.067 (0.316)
Infrastructure - continuous and uninterrupted electricity supply (1 = low, 5=high)	3.11 (1.25)	0.338*** (0.000)	0.263*** (0.000)	0.278*** (0.000)	0.252*** (0.000)	0.328*** (0.000)

Continues on the next page.....

Variables	$\bar{x}$ (s)	STM practices				Total STM
		correlation (sig. 2-tailed)				
		<i>Environm ental analysis</i>	<i>Strategy planning</i>	<i>Strategy implem enta tion</i>	<i>Strategy control</i>	
Infrastructure - continuous and uninterrupted water supply (1 = low, 5=high)	3.21 (1.25)	0.242*** (0.000)	0.204*** (0.002)	0.186*** (0.005)	0.194*** (0.003)	0.238*** (0.000)
Distance from production facility to main road (km)	4.81 (10.9)	0.000 (0.996)	0.058 (0.417)	0.045 (0.527)	0.100 (0.166)	0.049 (0.494)
Access to the main road - travel time from production facility to main road (Mins)	34.39 (130)	0.045 (0.532)	0.095 (0.186)	0.087 (0.225)	0.115 (0.109)	0.096 (0.179)
Distance from production facility to the nearest major market (km)	4.03 (10.6)	0.167** (0.017)	0.140** (0.044)	0.163** (0.019)	0.118* (0.093)	0.186*** (0.007)
Electricity availability (number of interruptions per month)	4.40 (5.44)	-0.067 (0.323)	-0.063 (0.354)	-0.065 (0.336)	-0.002 (0.978)	-0.090 (0.185)
Bureaucracy- number of incidences of changes in business regulations per year	1.65 (1.95)	0.244*** (0.001)	0.159** (0.038)	0.262*** (0.001)	0.282*** (0.000)	0.254*** (0.001)
Convenience of the business license procedure (1=poor, 5=excellent)	3.43 (0.99)	0.199*** (0.003)	0.196*** (0.003)	0.235*** (0.000)	0.191*** (0.004)	0.228*** (0.000)
Bureaucracy - average number of days from initial application to approval	10.76 (11.4)	-0.098 (0.175)	-0.073 (0.309)	-0.074 (0.301)	-0.063 (0.379)	-0.109 (0.130)
Increase in sales (average 3 year trend; 1=decrease , 5=increase)	3.61 (0.84)	0.531*** (0.000)	0.523*** (0.000)	0.532*** (0.000)	0.535*** (0.000)	0.559*** (0.000)
Increase in expenses (average 3 year trend; 1=decrease , 5=increase)	3.78 (0.66)	0.123* (0.063)	0.095 (0.152)	0.172*** (0.009)	0.144** (0.030)	0.131** (0.048)
Increase in number of workers (average 3 year trend; 1=decrease , 5=increase)	3.13 (0.55)	-0.086 (0.197)	-0.066 (0.319)	-0.035 (0.596)	-0.093 (0.166)	-0.079 (0.236)

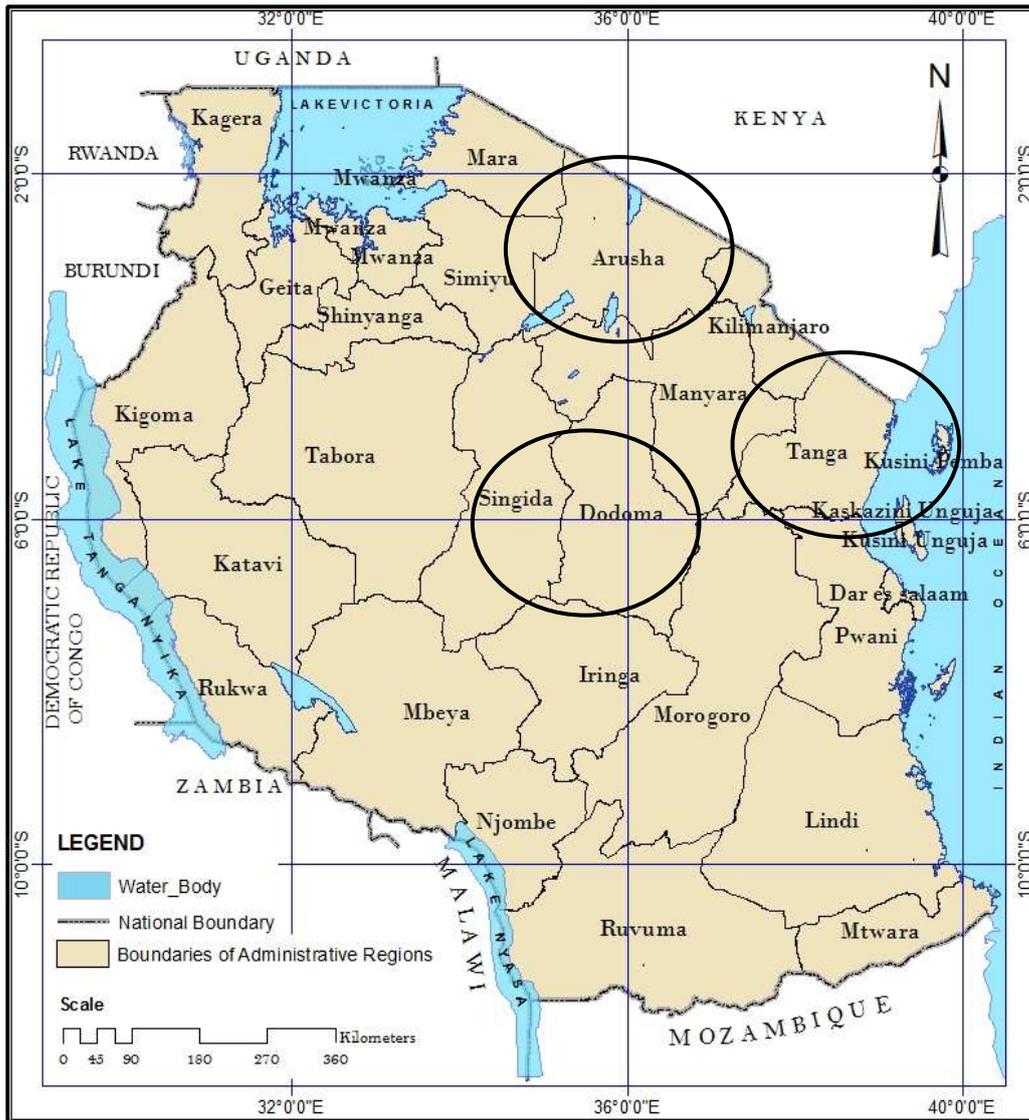
**Notes:**

Spearman rho correlation, (r) Sig. 2-tailed test, significance at \*\*\* p< 0.01; \*\*p < 0.05 and \*p < 0.1.

Strength of correlation between variables: *small* (r= 0.10) *medium* (r= 0.30 to 0.49) and *large* (r=0.50 to 1.00).

$\bar{x}$  (s) – sample mean (standard deviation)

Appendix 1-2: Study Area



## Chapter Two

### 2 The Impact of External and Internal Factors on Strategic Management Practices of Agribusiness Firms in Tanzania

Theresia Dominic and Ludwig Theuvsen

#### Abstract

All firms need to work out strategic plans to exploit the existing market, but they differ in their capacity to implement and manage strategies. Considering the industrial organization and resource-based views in the strategic management literature, we understand that firm attributes, resources and external environmental factors are critical links to strategic practices. With regard to African agribusiness firms, there is scant research on how these factors determine the successful application of strategic management practices. Therefore, this study uses empirical data from 229 agribusiness firms in Tanzania to obtain insights into the determinants of their choice of strategic management practices. The results show significantly that better strategic actions reside in the capabilities of firm managers, whereas many external factors, such as access to public infrastructure, did not turn out to have a significant influence. The findings have interesting implications for the management of agribusiness firms in African countries and other developing and emerging economies.

*This paper has been published in this similar version as a discussion paper within the Global Food Discussion Paper Series.*

## **2.1 Introduction**

Competitiveness in global markets has required firms to think, plan and make decisions strategically. In this case a series of practices such as environmental analysis, strategy formulation, implementation, evaluation and control of strategic plans within firms are applied through strategic management (STM) approaches (Wheelen & Hunger, 2006). Strategic management consists of actions that provide a framework for the long-term development of a company and result in the achievement of a firm's objectives (Hitt, Ireland, & Hoskisson, 2009). Various studies have revealed that small and medium-sized firms differ from large companies with regard to their strategic management practices (Welsh & White, 1981) and often lack strategic awareness (Gibb & Scott, 1985). Several studies of small firms have attempted to link STM and firm performance (R. Andrews et al., 2006; Beaver, 2002; Bracker & Pearson, 1986; Chen, 2005; Georgellis et al., 2000; Stacey, 2011). Schwenk and Shrader (1993) examined 14 research studies and showed a positive, significant link between the planning activities of small firms and their performance. However, success depends on who carries out the planning in a given firm and a proper assessment of the firm's resources and environmental conditions (Stacey, 2011). Since relatively few agribusiness studies discuss firms' strategic management practices, this study seeks to fill that gap by examining STM application in food processing firms (Trienekens, 2011). Greater attention is needed to 'strategic management' explanations of agribusiness firms (Mugera, 2012; Ng and Siebert, 2009) especially in the context of developing and emerging economies since companies from these economies have only rarely been addressed by strategic management research.

STM practices are sometimes considered less relevant for small and medium-sized firms, especially in the agribusiness sector, because it is thought that a systematic STM is necessary only for large corporations (Chen, 2005; Fard et al. 2011; Hitt et al., 2009). In this regard, small firms end up having poor plans on how to get their products to final consumers in food markets (Admassie & Matambalya, 2002; Kinda & Loening, 2010). But in many countries food markets are characterized by a high intensity of competition and increasing internationalization (Rama, 2005; Theuvsen et al., 2010). Theoretically, this means that the firms facing the hardship in the market environment will require more strategic practices than those facing simple environments (Miller & Friesen, 1983)—

regardless of their size. Furthermore, firms in competitive environments should be proactive, foresee changes in their environment and refine their strategies according to market requirements (Sull, 2009).

In Tanzania and other developing and emerging economies, food processing firms have great potential for growth, and their strategic management orientation is progressing. However, despite some progress, strategic management is still in its infancy in many companies and our current understanding of their operating strategies has remained limited. Several explanations are offered for firms' reluctance to implement strategic management practices, including lack of better trading strategies and poor managerial skills (Dinh et al., 2013). Over the years government programs such as the Tanzanian Agricultural Sector Development Program 2006–2013, have been formulated to support the building of better functioning agro processing firms (Dinh et al., 2013). However, firms' abilities to develop their own strategies differ and are not well understood. Some firms are better at implementing management practices than others. Therefore, our research question is this: What is the influence of internal and external factors on the successful implementation of a firm's strategic management practices? The factors investigated here are firm characteristics, its access to resources and the external pressures on the firm from its operating environment.

The remainder of this paper is structured as follows: In Section 2 we clarify the foundation behind specific relationships between various contingency factors and management practices through giving a theoretical background and building a conceptual framework. We also generate research assumptions based on different arguments from the empirical literature. Section 3 describes the sample, measures and analytical techniques. Then results are presented in Section 4, including primary data from interviews with agribusiness firm managers. Finally, in Section 5 we discuss the conclusions and implications of the results and give directions for future research.

## **2.2 Theoretical Framework and Hypotheses**

Due to market competition and other external challenges, firms make efforts to carry out systematic planning and decision making. Strategic management is a management practice that can contribute to these efforts. It contains a full set of actions required for a firm to analyze its external and internal environments; formulate its

corporate, competitive and functional strategies (Hofer & Schendel, 1978); achieve strategic competitiveness; and earn above-average returns (Hitt et al., 2009). The concept demonstrates why some firms consistently perform better while others fail to do so (Nutt, 2004). Furthermore, in their effort to perform better, firms engage with STM practices in order to achieve their objectives and hence satisfy those interest groups which are affected by the achievement of the firm's objectives (according to the stakeholder theory [Freeman, 2010]).

With regard to the relationship between strategic management practices and firm performance, two theoretical strands in the strategic management literature can be distinguished. The first theory—the industrial organization model of above average returns, or I/O theory—suggests that the external environment is the primary determinant of firms' strategic actions (see, for instance, Porter 1980). The environment is assumed to impose pressure and constraints that determine the strategies resulting in the achievement of firm objectives. The key to this theory is identifying these determinants, tailoring strategies accordingly and competing successfully (Collis, 1991). This perspective has also been applied to the analysis of strategic management in the agribusiness sector, including small and medium-sized firms (Niederhut-Bollmann & Theuvsen, 2008).

The second theory—the resource based theory (RBT) in strategic management—views internal organizational resources as the key determinants of strategy and performance, suggesting that a firm's unique resources and capabilities are the critical links to strategic management practices. According to Barney (1991) and Barney and Hesterly (2010), firms must be organized to take advantage of their resources and capabilities in order to remain competitive and realize their potential. With regard to agribusinesses, RBT has not been widely used to explain the differences in performance with regard to small agribusiness firms. Therefore, as suggested by Mugeru (2012), there is a need to apply it in agribusiness studies to come up with more in-depth analyses of resources and capabilities that enhance better strategic management practices and hence performance.

Thus, to engage in STM practices, such as formulating mission and vision statements and planning and implementing strategies, firms use both the industrial organization and resource-based views. The first strand of strategic management theory is concerned with the firm's external environment, which sets the scene for strategic

decisions, while the second theory focuses on the firm's internal environment, i.e., its tangible, intangible and human resources and its capabilities (Hitt et al., 2009). Furthermore, no single strategy would be appropriate for all firms operating in a particular type of environment; rather, the choice of strategies depends on individual firm characteristics, a firm's environment and available resources and capabilities (Grant, 2013).

For the purpose of identifying research gaps, we review studies that have been conducted in relation to the determinants of STM practices, mainly firm characteristics, firm resources and external factors. We also explain studies on firm performance in relation to STM practices to develop the theoretical framework underlying this study.

### **2.2.1 Firm Characteristics**

STM implementation is affected by several firm characteristics, including size, output, sales growth and profitability (Heyder and Theuvsen 2008). The variations of each can affect the choice of STM practices and eventually the overall firm performance. Fajnzylber et al. (2006) analyze variation in firm age and managers' experience, concluding that strategic performance tends to decline as a firm ages because, when a new practice is introduced, younger firms more easily adopt it, while for older firms it may be costly to let go of old strategies and work procedures. Others disagree, saying that old firms easily adapt to new practices due to the staff's greater degree of experience (Hitt et al., 2009). Experienced staff can enhance knowledge transfer from previous strategic challenges (Gary et al., 2012) and hence engage in more adequate strategic practices.

On the matter of firm size, Weinrauch et al. (1991) argue that small firms lack a strategic orientation compared to larger ones and that bigger firms are presumed to be relatively more efficient than smaller ones. In contrast, Coviello et al. (2000) claim that small firms actually have a more strategic orientation because they are driven to develop strategic planning processes as they grow in size, scope and resource base. Furthermore, some studies indicate that firm size does not appear to influence how firms plan their strategies (Miles et al., 2000), but Bigsten and Gebreeyesus (2007) observed that smaller, younger firms are more strategic since they grow faster than larger, older firms.

Another characteristic is degree of formalization, i.e., the extent of written rules, procedures and instructions in a firm (Adler & Borys, 1996), or, more specifically, formality, i.e., the official status of a firm, for instance, for the purpose of paying taxes (McKenzie & Sakho, 2010). There is empirical evidence that firms with a high level of formalization show better application of STM practices, higher revenues or better performance (Fajnzylber et al., 2006; McKenzie and Sakho, 2007). However, Bigsten et al. (2004) identified no significant difference in achieving productivity strategy between small formal and informal firms. Earlier studies described efficient formal organizations as those with a clear division of work and a clear structure of command (Fayol, 1921); recent studies focusing on small businesses indicate the same but with more focus on abiding by business regulations, other written rules, etc. (Robbins & Judge, 2012). Many developing countries recognize the importance of small businesses in economic growth and hence tolerate informal business structures because the informal sector reduces unemployment (Nelson & DeBrujin, 2005). However, regardless of whether these firms operate formally or informally, it is not clear whether they are able to conduct STM practices. Based on these arguments on size, age and formality status, we hypothesize the following:

*H<sub>1</sub>: Firms' distinguishing characteristics have significant effects on successful application of STM practices.*

*H<sub>1a</sub>: The older the firm is, the more common is the application of STM practices.*

*H<sub>1b</sub>: Increase in firm size is associated with increase in the application of STM practices.*

*H<sub>1c</sub>: The formalization status of a firm has a positive effect on its application of STM practices.*

### **2.2.2 Firm's Resources and Capabilities**

Firms' ability to achieve their objectives is closely related to the resources they possess and how they are managed (Bloom & Van Reenen, 2007). Firm resources facilitate successful implementation of strategies as long as they are valuable, rare, imperfectly imitable and imperfectly substitutable (Penrose, 1959; Mugeru, 2012). Availability and management of valuable resources facilitate better strategic practices. However, Ferrier (2001) proposed an opposing explanation by arguing that a lack of resources will actually cause aggressive strategic practices by the firms, as they struggle

to compete to acquire resources; but there are limited studies to support this argument. With reference to resource-based theory as explained earlier, our study looks at helpful resources such as tangible and intangible possessions that are controlled and invested by the firm to implement strategies and attain and sustain competitiveness (Barney, 1991). The small firms' strategic actions are often affected by their low investment capacity due to their tendency to use unsustainable sources of finance, such as their own savings, money from local lenders, or loans from family and friends (Dinh et al., 2013). Hence, low investment might pose a challenge when applying STM practices. Access to market information is also an important factor for STM, especially when conducting environmental analyses (Hitt et al., 2009).

The most discussed resource for large firms is managers' level of expertise. Expertise is associated with better application of strategic management practices as discussed by Boehlje et al. (2011). The authors analyzed the consequences of strategic uncertainty for the agribusiness firm and indicated that managers should be able to reassess the firm's strategy. If firm managers have limited business ability, they will not be able to resolve their firms' strategic positions (Ambrosini & Bowman, 2009; Mugeru, 2012). However, the authors do not specify which expertise works best for small firm operations. Also, there are insufficient programs to help small agribusiness firm owners to improve their skills. More attention has been devoted to seeking external sources of funds, while the issue of managerial expertise has been neglected (Kweka & Fox, 2011). Based on these arguments concerning firm's investment level, access to market information and managers' level of expertise, we hypothesize the following:

*H<sub>2</sub>: Changes in firms' access to internal resources and capabilities are associated with an increase or decrease in the application of STM practices.*

*H<sub>2a</sub>: An increase in firms' investment level is associated with an increase in the application of STM practices.*

*H<sub>2b</sub>: The more firms have access to market information, the more they apply STM practices.*

*H<sub>2c</sub>: An increase in managers' expertise is associated with an increase in the application of STM practices.*

### ***2.2.3 Pressure from the External Environmental***

A number of environmental factors are identified in several studies as determinants of firm strategies. Successful implementation of strategies depends on having adequate information on changing customers' needs, changing technology in one's industry and government regulations and on knowing what competitors are up to and what is occurring in the general economy both domestically and worldwide (Burke, 2011). The external environment of small firms is characterized by several constraints that affect a firm's ability to afford strategic operations (Dobbs & Hamilton, 2007; Kweka & Fox, 2011). Therefore, it is implied that those companies that face these constraints will have a hard time implementing and achieving their strategies. But Smallbone and Wyer (2006) argue that these constraints actually constitute a greater impetus for the firm to perform strategic practices.

For example, Dinh et al. (2013) indicate that unavailability of quality inputs can prevent firms' competitiveness. Better availability of raw agricultural products, food packages, tools, labels, etc., facilitates better strategic actions. Other studies identify specific factors that can benefit small firms, such as access to public infrastructure (e.g., electricity and public transport [Jin and Deininger 2008]), whereas in countries such as Tanzania, poor quality infrastructure causes marketing barriers (Kweka, 2006). Furthermore, in the external environment, access to funds (i.e., bank loans or grants) is a potential factor. Evidence shows that smaller firms with access to external funds are able to make strategic investment plans and grow more quickly than those relying on their own funds (Fafchamps & Quinn, 2012). Therefore, availability of inputs, public infrastructure and access to funds may all have a significant influence on the implementation of firm strategies, simply because they pressurize the firms to develop new and better strategies in order to cope with external changes or may limit a firm's ability to act strategically. In this regard, we formulate the following hypothesis:

*H<sub>3</sub>: Pressure from a firm's external environment will directly affect the application of STM practices.*

*H<sub>3a</sub>: Better availability of inputs will directly affect the application of STM practices.*

*H<sub>3b</sub>: Better access to better public infrastructure services will directly affect the application of STM practices.*

*H<sub>3c</sub>: Better access to external sources of funds will directly affect the application of STM practices.*

#### **2.2.4 Strategic Management Practices**

Understanding the unique elements of small firms' STM practices in agribusiness is critical in this era of food market transformation (Bakker, 2011). Some studies have analyzed STM practices and discussed its pitfalls, but, as noted above, these studies have often concentrated on medium-sized and large corporations (Chen, 2005; Fard et al. 2011; Hitt et al., 2009; Stacey, 2011). For large organizations, the application of STM practices includes sophisticated application of various tools and procedures involving top management executives, professional managers such as planning specialists, other employees and external consultants and stakeholders. But when we study small firms (with capital of less than US\$125,000), we have to look at the very basic details of their ability to perform each step of STM practices as described by Wheelen and Hunger (2006):

- (a) The preliminary step of STM practices includes environmental scanning; we assess whether firms are aware of their internal and external market environment or whether they are informed about potential opportunities of the firm, etc.
- (b) We assess whether there are strategic plans that are listed in terms of firm objectives, in a specific time frame and if so, whether they are regularly updated and known to every employee in the firm.
- (c) The following step involves strategy implementation; we assess whether firms have developed an operating manual for employees, have adequate number of workers who are committed to strategic management practices or whether they can finance these activities.
- (d) The last step involves strategy evaluation; we assess whether the firms have a tendency to compare actual activities with original plans, have alternative plans in case of unexpected developments or regularly compare their firm's strategy with those of competitors.

Even though strategic management practices may seem suitable at first sight, mainly for large corporate firms, there is a need to establish their relevance for small firms as well. Initially, there is a need to better understand which STM practices small firms actually apply and what determines the application of STM practices.

### **2.2.5 Performance**

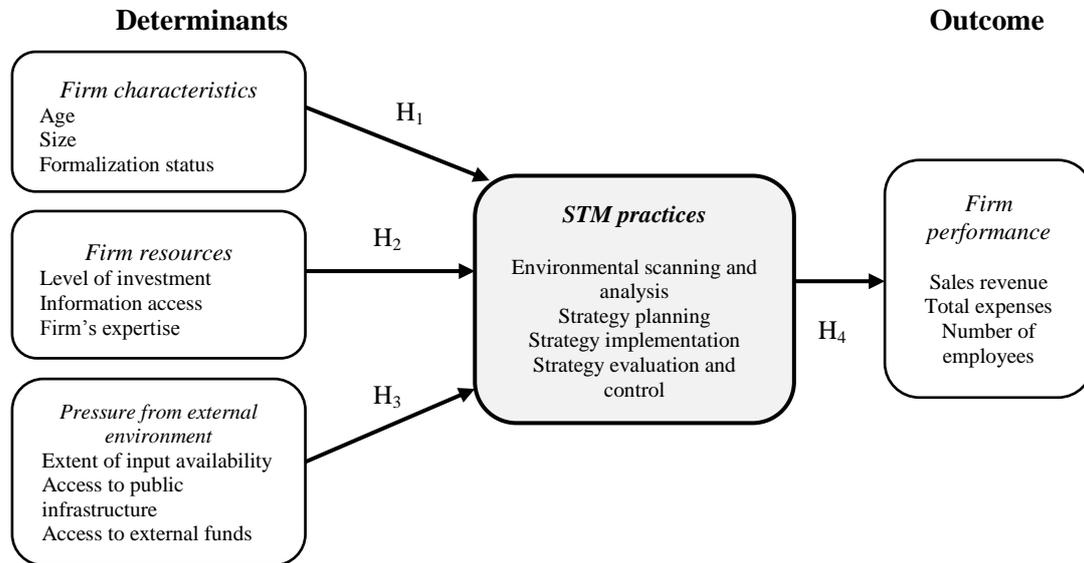
The study by Bakar et al. (2011) of STM application in business firms concluded that STM enables firms to increase their profit by increasing sales and reducing unnecessary expenses. It has repeatedly been argued that practices such as strategy planning and implementation serve the purpose of improving firm performance and that, hence, both constructs are closely linked (Andrews et al. 2009; Boyne and Walker 2004; Andrews Boyne, and Walker 2006; Beaver 2002; Bracker and Pearson 1986; Chen 2005; Georgellis, Joyce, and Woods 2000; Stacey, 2011). Moreover, Woods and Joyce (2003) indicated that firms that were using STM tools achieved rapid growth in performance. However, only a very limited number of studies apply to small agribusiness firms. Some studies that have examined these firms show that those companies which engage in strategic management practices do not do so mainly for reasons of reaching performance goals but for reasons of complying with public pressure and meeting stakeholders' expectations (Heyder and Theuvsen, 2012). Other studies have shown that for agribusiness firms to have a clear strategic position improves their performance (Theuvsen, Heyder, & Niederhut-Bollmann, 2010).

Since specific routes to performance are many, varied and not susceptible to simple generalizations (Cooper et al., 2005), when determining the performance of food processors, we included a variety of questions on revenue growth and sales growth perceived by managers during the past three years, as used in Zhang and Li (2008), and trends in total expenses as used by Van Duren et al. (2003). We also looked at number of employees since the number can correlate highly with sales volume and growth (Beck et al., 2005; Zhang and Li, 2008) and achievement of strategies as possible measures of performance. We therefore propose the following hypothesis:

*H<sub>4</sub>: The greater the extent of strategic management practices, the better the firm's performance.*

To sum up our discussion from the literature, a conceptual framework underlying the empirical analyses (see Figure 2-1) is proposed.

**Figure 2-1: Conceptual Framework**



Source: Authors' illustration

## 2.3 Methodology

### 2.3.1 Data collection and sample description

The hypotheses and conceptual framework outlined above inspired an empirical study of strategic management practices in small Tanzanian agribusiness firms. Between May and August 2013, data was collected through interviews with firm owners and/or managers with the aid of a structured questionnaire. The sample consisted of firms processing cereals, vegetables and fruits located in the Arusha, Dodoma and Tanga regions of Tanzania. The selection of firms followed a random sampling technique from a list of processors in the Small Industries Development Organization (SIDO). SIDO is a parastatal organization for improving the effectiveness of small industries in the country. Over 331 firms were contacted and agreed to participate in the interviews; 229 questionnaires were qualified for analysis after excluding partially completed questionnaires. Sixty-two questionnaires were collected from Arusha, 105 from Dodoma and 62 from Tanga.

The description of the sample is presented in Table 2-1. The firms have an average of 7<sup>1</sup>/<sub>2</sub> years of business operations and process on average three types of food products: cereals, fruits and vegetables. The majority of the firms (98.5%) buy farm produce from local farmers, and the rest (1.5%) import produce from neighboring countries.

**Table 2-1: Descriptive Information about the Sample (N=229)**

<b>Variables</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Min</b>	<b>Max</b>
<i>Information on Firm</i>				
Firm age (yrs.)	7.54	5.03	3	28.58
Full-time employees	5.00	3.41	3	20
Capital investment in million TZS	26.94	51.81	0.3	350
Self-financed firms (dummy)	0.27	0.40	0	1
Total number of products	3.00	1.92	1	11
Non-perishable (dummy)	0.66	0.48	0	1
Family business (dummy)	0.26	0.44	0	1
<i>Products: Cereals (65.9%), fruits (16.4%), vegetables (11.5%), other (6.2%)</i>				
<i>Information on Respondent</i>				
Age	43.00	10.70	18	78
Years of education (yrs.)	11.05	3.51	1	22

The respondents in this study were those who were able to provide a general overview of the firm and the cornerstones of their strategies. Their ages ranged from 18 to 78 years (average: 43 years), with an average of 11.05 years of school education; 61 percent of the respondents were female

### **2.3.2 Model Estimation**

Appendix 2-1 shows the variables and items used for building our model: latent variables (or constructs), items in each construct, means and standard deviations. The formal status of a firm is represented by four items, its access to information by eight items, managers' expertise by nine items, and size and age by one item each. Other constructs are level of investment, which has six items; access to public infrastructure (eight items); availability of inputs (two items); and access to external sources of funds (one item). However, items that loaded less than 0.5 were excluded. We use partial least squares structural equation modelling (PLS-SEM) through Smart PLS 2.0 M3 software to estimate our model. The software has the advantage of dealing with complex explorative models with multiple relationships. Also, our study model measures relationships between eleven constructs together with a mix of reflective, formative and single items,

which can be easily handled without any identification problem by PLS-SEM (Haenlein and Kaplan, 2004; Hair et al., 2014).

We decided to build a hierarchical component model (HCM) and calculate coefficients by using a repeated indicator approach. The approach involves testing second order structures that contain two layers of constructs; this means that items (indicators) used in the first layer are repeated in a second layer. These variables are firm resources (Rs) and pressure from the external environment (EXT); using only two such variables means that the model will have fewer exogenous constructs, thus reducing the number of relationships in the structural model and making the path model easier to grasp.

### ***2.3.3 Quality Assessment of the Model***

We proceed by testing the reliability of our outer model (mode A) through composite reliability (CR) score and construct convergent validity through average variance extracted (AVE) scores and discriminant validity using the Fornell-Larcker criterion as applied in Henseler et al. (2009). Table 2-2, Table 2-3 and Table 2-4 show that all items are reliable, with CR scores above the threshold value of 0.708. Also, all measures of AVE for the first order constructs are above 0.5, which means that the latent variable on average explains more than 50% of the variance in the measured variables; hence, convergent validity is met.

Convergent validity for the second order constructs ‘firm resources’ and ‘pressure from external environment’ show AVE values of 0.462 and 0.43 respectively. The first value is below the threshold of 0.5 but quite close to this threshold. The latter value of 0.43 for the second order construct is not close to the threshold; but its first order constructs (i.e. ‘INPUT’ and ‘INFRA’) have their AVE values above the threshold (Table 2-4) hence we will keep the variable in the model.

**Table 2-2: Quality Criteria for Firm Characteristics Constructs**

Variable	Construct	Loadings	AVE	CR	Cronbach $\alpha$
AGE	Age of the firm (AGE)	1 item			1
SIZE	Size of the firm (SIZE)	1 item			1
FORMAL	Formalization status (Xs)	4 items	0.734	0.917	0.879
FORM_1	You have a picture of an organization structure.	0.84			
FORM_2	You have indicated clearly the division of work for employees.	0.91			
FORM_3	You have written a clear business plan.	0.85			
FORM_4	You are able to abide to all legal business regulations.	0.82			

**Table 2-3: Quality Criteria for Reflective First Order Constructs of Firms' Internal Resources**

Variable	Construct	Loadings	AVE	CR	Cronbach $\alpha$
INVEST	Investment level:		0.81	0.90	0.758
INVEST_1	How much have you invested on the firm's buildings?	0.91			
INVEST_2	How much have you invested on the firm's motor vehicle?	0.89			
INFO	Information Access		0.66	0.85	0.743
INFO_1	Information on where to get raw materials	0.73			
INFO_2	Information access on changes in product prices	0.87			
INFO_3	Information access on where to sell	0.83			
EXP	Manager's level of expertise		0.63	0.94	0.926
EXP_1	Level of expertise in bookkeeping and accounting	0.73			
EXP_2	Level of expertise in managing employees	0.81			
EXP_3	Level of expertise in marketing techniques	0.79			
EXP_4	Level of expertise in financial management	0.83			
EXP_5	Level of expertise in stock taking and record keeping	0.82			
EXP_6	Level of expertise in food quality and safety standards	0.78			
EXP_7	Level of expertise in customer care	0.81			
EXP_8	Level of expertise in product presentation	0.78			
EXP_9	Level of expertise in food processing	0.79			

**Table 2-4: Quality Criteria for the Reflective First Order Constructs of 'Pressure from Firm's External Environment' Variable**

Variable	Construct	Loadings	AVE	CR	Cronbach $\alpha$
INPUT	Input availability		0.68	0.81	0.537
INPUT_1	Availability of agricultural inputs	0.84			
INPUT_2	Availability of non-agricultural inputs	0.81			
INFRA	Access to public infrastructure level		0.68	0.86	0.748
INFRA_2	The firm is in the city center.	0.62			
INFRA_7	There is a continuous and uninterrupted electricity supply.	0.91			
INFRA_8	There is a continuous and uninterrupted water supply.	0.91			
FUNDS	Access to funds (FUNDS) (single item excluded from HCM)	1			1

We use the Fornell-Larcker criterion to check for discriminant validity. The aim is to see whether a construct shares more variance with its measure than it shares with other constructs in a given model. The criterion is met when the AVE scores (see diagonal values in Table 2-5) of each latent construct is higher than the construct's highest squared correlation with any other latent construct (Fornell & Larcker, 1981).

**Table 2-5: Fornell-Larcker Criteria**

	1	2	3	4	5	6	7	8	9	10	11
1. AGE	single item										
2. EXP	0.07	<b>0.63</b>									
3. FORMAL	0.08	0.28	<b>0.73</b>								
4. FUNDS	0.01	0.00	0.02	single item							
5. INFO	0.02	0.18	0.14	0.00	<b>0.66</b>						
6. INFRA	0.06	0.08	0.01	0.10	0.08	<b>0.68</b>					
7. INPUT	0.01	0.07	0.04	0.01	0.10	0.03	<b>0.68</b>				
8. INVEST	0.10	0.16	0.07	0.00	0.02	0.05	0.03	<b>0.81</b>			
9. PERF	0.01	0.14	0.18	0.00	0.10	0.01	0.01	0.01	<b>0.90</b>		
10. SIZE	0.06	0.07	0.16	0.01	0.03	0.01	0.02	0.07	0.10	single item	
11. STM	0.14	0.30	0.29	0.00	0.16	0.05	0.03	0.10	0.35	0.19	0.91

**Note:**

AVE values are positioned on the diagonal, and the correlations between the constructs are in the lower left triangle.

After variable measures have been confirmed as reliable and valid, we then assess the structural model for collinearity because the path coefficients may be biased if the estimation involves significant levels of collinearity among predictor variables. We run three sets of linear regression models on SPSS for the purpose of checking the variance inflation factor (VIF) values.

Appendix 2-2 shows that VIF values are below the threshold value of 5.0, thus indicating no multicollinearity problem. After assessing the quality of our measurements, we run the PLS algorithm to examine key results of the model.

## 2.4 Results

Table 2-6 shows resulting relationships between variables, path coefficients, R-squared, t-statistics for the standardized path coefficients and p-values. The t-statistics were tested by running bootstrap with 5,000 re-samples. Table 2-6 also presents the results of the hypothesized structural model because one path characterizes each hypothesis. The results show that application of STM practices is influenced by a firm's distinguishing characteristics: firm age ( $H_{1a}$ ; 0.135\*\*\*), firm size ( $H_{1b}$ ; 0.231\*\*\*) and formalization status of the firm ( $H_{1c}$ ; 0.227\*\*\*). Moreover, the application of STM practices is greater if there are high investment levels ( $H_{2a}$ ; 0.042\*\*\*), access to market

information ( $H_{2b}$ ; 0.061), increase in managers' level of expertise ( $H_{2c}$ ; 0.284\*\*\*) and better access to funds ( $H_{3c}$ ; 0.089\*). In contrast, the effect of better availability of inputs and access to public infrastructure services do not significantly influence application of STM. Therefore, hypotheses  $H_{3a}$  and  $H_{3b}$  are not supported. Altogether, 48.5 percent of the variance in application of STM practices is explained by the determinant (exogenous) variables in the model, with the highest contribution coming from managers' level of expertise, followed by firm size and the formalization status of the firm.

Hypothesis  $H_4$  was supported. The extent of strategic management practices significantly contributes to firm performance (0.591\*\*\*); however, only 35 percent of the variance is explained.

**Table 2-6: P-values and Hypothesis Testing**

Relationships	Path Coefficient	t-values	p-value	Sig.	Hypothesis	Decision
AGE → STM	0.135	3.189	0.002	***	<b>H1</b> $H_{1a}$	Supported
SIZE → STM	0.231	5.137	0.000	***	$H_{1b}$	Supported
FORMAL → STM	0.227	3.377	0.000	***	$H_{1c}$	Supported
INVEST → STM	0.042	4.398	0.000	***	<b>H2</b> $H_{2a}$	Supported
INFO → STM	0.061	4.577	0.000	***	$H_{2b}$	Supported
EXP → STM	0.284	5.388	0.000	***	$H_{2c}$	Supported
INPUT → STM	0.015	0.990	0.323	NS	<b>H3</b> $H_{3a}$	Not supported
INFRA → STM	0.046	0.974	0.331	NS	$H_{3b}$	Not supported
FUNDS → STM	0.089	1.713	0.088	*	$H_{3c}$	Supported
STM → PERF	0.591	13.175 <sup>1</sup>	0.000	***	<b>H4</b> $H_4$	Supported
<b>R- Squared values:</b>	<b>STM = 0.485</b>					
	<b>PERF = 0.350</b>					

Significance: \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$  <sup>1</sup>One tailed test

Predictive relevance  $Q^2$  is another criterion for the model assessment (Henseler et al., 2009) and values of  $Q^2$  larger than zero verify that our exogenous latent variables have predictive relevance for the endogenous latent variables STM and PERF. The results yield the values 0.337 for STM and 0.237 for PERF (see Appendix 2-3), which confirm the predictive relevance of the associated path model relationships. We then extend our findings of PLS-SEM outcomes by conducting the importance–performance matrix analysis (IPMA) as applied by Martilla and James (1977).

### 2.4.1 Importance–Performance Matrix Analysis (IPMA) for STM Practices

IPMA is useful in extending PLS-SEM findings using latent variable scores. The matrix shows which attribute (i.e., exogenous variable) a manager should focus on in order to apply STM practices successfully. Thus, IPMA provides guidance for strategic development (Slack, 1994). The term *importance* refers to the impact of a latent variable on an endogenous (or target) variable, while *performance* represents responses from the data in a form of latent variable scores or index values. In generating the matrix, we use ‘application of STM practices’ as our target variable; thereafter *total effects* (importance) and *index values* (performance) are determined (Hair et al., 2013). The total effect of a path between two constructs is the sum of all the direct and indirect effects in a structural model derived from a PLS path model estimation. The index values, on the other hand, are derived by means of re-scaling all observation data to a range of 0 and 100 (see, Anderson and Fornell, 2000; Höck and Ringle, 2010) using the formula:

$$X_i^{rescaled} = \frac{(x_i - \text{Minscale}[x])}{(\text{Maxscale}[x] - \text{Minscale}[x])} \cdot 100$$

$X_i$  represents  $i^{\text{th}}$  data (latent variable score),  $\text{Minscale}[x]$  represents the lowest, and  $\text{Maxscale}[x]$  the highest value in the  $x$  data (Höck & Ringle, 2010). The mean values of all latent variable scores are rescaled with the higher values indicating better performance. Table 2-7 shows the resulting total effect and latent variable index values extracted from a smartPLS report. If, for example, the index value of AGE increases by one unit, the index value of the target variable STM will increase by 0.135 points in a static manner of assessment (*ceteris paribus*). For quick interpretation of all variables, a graphic IPMA representation is created by using a Microsoft Excel spreadsheet application (see Figure 2-2).

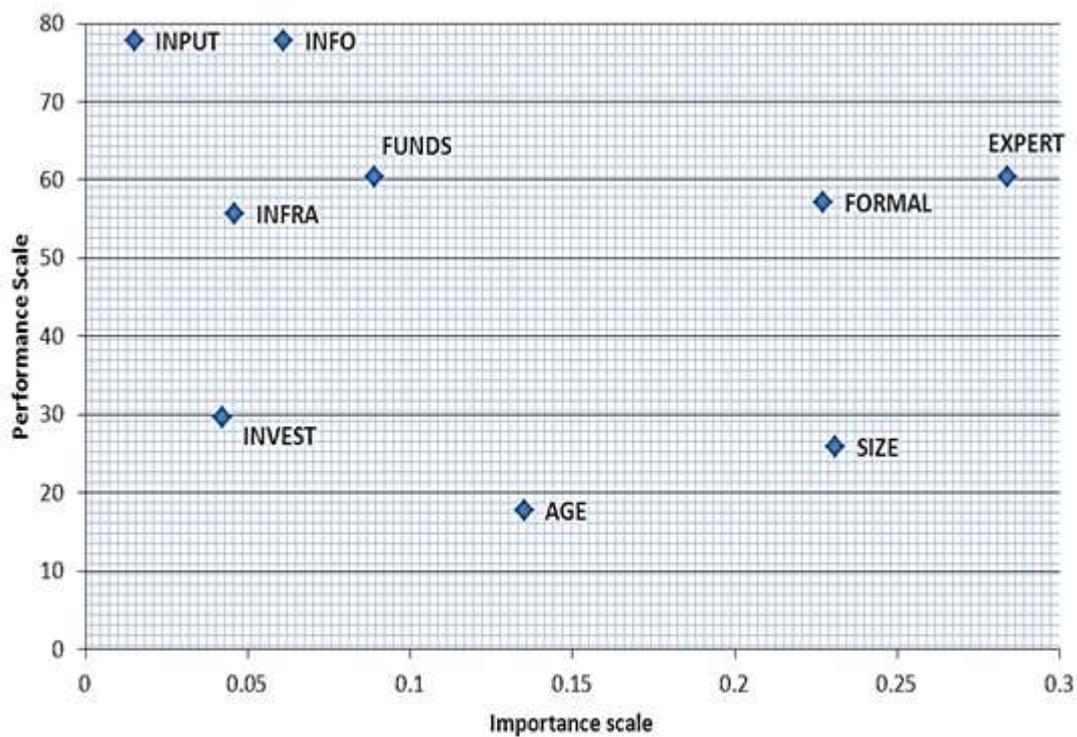
**Table 2-7: IPMA Results**

<b>Variable</b>		<b>Total Effects (Importance)</b>	<b>Index Values (Performance)</b>
Firm age	AGE	0.135	17.76
Firm size	SIZE	0.231	25.97
Formalization status	FORMAL	0.227	57.10
Level of investment	INVEST	0.042	29.71
Access to market information	INFO	0.061	77.77
Managers' level of expertise	EXP	0.284	60.38
Availability of inputs	INPUT	0.015	77.86
Access to public infrastructure	INFRA	0.046	55.66
Access to funds	FUNDS	0.089	60.35

In terms of recognizing priority areas or issues requiring managerial action, attention should be paid to the variables that are positioned high on the  $x$ - and  $y$ -axes in Figure 2-2. Reading from the  $x$ -axis, managers' level of expertise ranks first on the importance scale, followed by firm size and formalization status, whereas availability of inputs ranks lowest. Reading from the  $y$ -axis, availability of inputs ranks first on the performance scale, followed by access to market information; in this case, firm age is the least important variable.

Overall, attention is given to the variables positioned in the top-right corner (see Figure 2-2), which indicates a relatively high share of importance and performance compared to other variables. In this case, managers' level of expertise and the formalization status of the firm are selected as areas of priority for the successful application of STM practices.

Figure 2-2: IPMA Representation of Determinants of STM Practices



## 2.5 Discussion and Conclusions

The results of our analysis demonstrate a positive link ( $H_4$ ; 0.591\*\*\*) between strategic management practices and firm performance. This finding provides justification for the need of STM practices for firm survival in competitive and dynamic markets. Since we surveyed small enterprises, the results provide support for the argument that there is a need for strategic awareness not only in medium-sized and large enterprises but also in small ones (Gibb & Scott, 1985). Furthermore, our empirical findings are in line with earlier studies that have indicated the positive effects of systematic strategic management in small enterprises (Andrews, Boyne and Walker, 2006; Bracker and Pearson, 1986; Georgellis et al., 2000).

Also, our analysis provides support for the notion that firm characteristics have a significant effect on STM practices. Looking at the path coefficient scores and *IPMA* presentation for each variable of firm characteristics separately, a firm's *formalization status* has a greater impact on the application of STM practices than its *age* and *size* (see Figure 2-2). The result is not in line with the study conducted by Bigsten et al. (2004),

which found no high productivity strategy achieved by changing from informal to formal status. After all, developing countries often tolerate the operations of informal businesses due to their contribution to net employment growth. In addition, firms do not see any profit gains by formalizing their businesses. Informal firms usually engage in food processing business on a trial basis, using family members in a part-time position, with no clear structure or direction and no paperwork or financial records. This informal management style is contrary to Max Weber's (1968) assertion that creating formal authority structures in any business enables it to benefit from the so-called "technical superiority" of bureaucratic organization. Our study supports Weber, indicating that greater formalization will enhance firms' successful strategy implementation ( $H_{1c}$ ; 0.227\*\*\*) because they will have more opportunities to make investment efforts and participate in export activities than informal firms. Hence, formal firms will be in a good position to implement their strategies; however, this applies mostly to firms with greater *age* ( $H_{1a}$ ; 0.135\*\*\*) and larger *size* ( $H_{1b}$ ; 0.231\*\*\*). The latter findings parallel early results from a contingency perspective in organization theory, which indicated that older and larger firms tend to become more formalized (Child, 1975). The trend towards increasing formalization and implementation of management systems has more recently been demonstrated for small growing enterprises, as well (Davila, 2005).

Further analysis provides support for the proposed relationship between available firm resources and the application of STM practices. Firm resources including investment level, access to information and management's expertise are positively associated with an increase in STM practices. These are helpful resources that support the implementation of strategies and hence gain and sustain competitiveness. The argument from the literature that firms with fewer resources aggressively engage in strategic practices (Ferrier, 2001) is not supported. The study looked at valuable resources for the food processing firms in this context and found that 'level of expertise' contributes most to STM implementation. Firms with relevant skills are in a good position to strategize well and position their products more easily in the market. The existing literature also indicates the same relationship, with no clear indication of which skills they are referring to (Ambrosini & Bowman, 2009; Mugeru, 2012). Among several skills investigated in this study, knowledge of food quality and safety standards, expertise in food processing and customer care were considered relevant. In contrast, firms with inadequate skills cannot implement their strategies successfully even if they have good

strategic plans in place. From a more general point of view, the findings support the widely shared resource-based view that it is often intangible and human resources that provide a basis for long-term competitive advantages since these resources are often difficult to imitate or replace (Prahalad & Hamel, 1990).

Our findings also show that the degree of a firm's ability to implement STM practices is influenced by better access to information ( $H_{2b}$ ; 0.061\*\*\*). As long as information is accessed and understood, it can be used to unravel market uncertainties and hence formulate and implement strategies and control results. This supports Hitt et al.'s (2009) proposition that access to information is essential for strategic management steps such as environmental analysis, for which firms need to be informed about relevant elements of and changes in the firm's internal and external environments. Thus, firms with better access to information on where to get agricultural produce, produce prices, where to sell their products, customer needs, competitors' actions and other relevant topics have better opportunities to successfully engage in strategic actions than those with poor access. Those with poor access are uninformed about what they need to solve their problems and unable to understand market trends clearly; as a result, they lose focus in goal accomplishment.

Our study shows significant results for the effects of level of investment on STM practices. Firms that invested more on assets such as firm buildings and motor vehicles were able to carry out their regular production plans and transportation in a convenient environment with adequate space for food hygiene and safety. Such firms are able to implement their strategies and realize their potential. Similar arguments have been made in previous studies, which link the poor performance of manufacturing firms to poor investment capacity (Dinh et al., 2013). The resource-based view in strategic management also argues that there is a need for a sufficient resource basis for doing business although most of these resources do not provide competitive advantages (Barney, 1991). Hence, policies should aim to promote private investment in input to resolve one of any small firm's major challenges—how to attract interested venture capitalists to invest in a modern production plant, machinery and food processing equipment.

The results of this study also show that there are significant and insignificant factors in the external environment that affect the application of STM. Better input

availability and access to public infrastructure services do not have a significant effect on the implementation of STM practices. The latter was surprising because we expected that access to public infrastructure would enhance the effective implementation of STM practices. It could be challenging in strategic implementation and monitoring aspects of STM if there is inadequate availability of electrical power, water, communications services, etc. The reason for our finding could be that the firms surveyed are not very exposed to external pressure compared with large firms that deal with complex transport logistics and exporting activities.

The conditions in firms' external environment shape the way they formulate their strategies. Previous studies indicated that pressure from the external environment can push firms to perform certain strategic actions (Heyder and Theuvsen, 2012; Smallbone and Wyer, 2006). Therefore, the only significant external environment factor was access to external sources of funds. Our results showed that the hypothesized positive effect of the access to funds and the implementation of STM practices was confirmed ( $H_{3c}$ ; 0.089\*). STM practices were more prevalent in those firms which have more alternatives for financing current and future activities. Those with a lack of access to loans and complicated bank loan applications claimed that STM practices are expensive, irrelevant and time-consuming in light of the small earnings they make. These firms depend more on their owners' savings, which is often an inadequate and very limited source of finance for business operation and expansion; hence, better access to formal sources of funds, such as bank loans, is needed. This brings us to the essential point of having a strategic plan in place that will convince formal financial institutions to issue loans and attract potential investors. The plan will also motivate firms to work hard towards firm performance (since our  $H_4$  hypothesis is supported). Therefore, if we look at pressure from external environment factors, the greater focus is on access to external sources of funds.

The study provides manifold starting points for future research. For instance, it does not imply that there is a best resource or capability for all firms but rather that there are skills that are valid for the effective application of STM in this context. Scholars may further pursue studies of STM practices that focus on the entire portfolio of skills (e.g., marketing, finance, human resources and logistics) possessed by agribusiness managers. Such studies may further demonstrate the link between managerial skills, application of

STM practices and firm performance. The analysis opens up another research path to explain the sphere of knowledge that determines effective strategic management practices. Overall, the conceptual model explains 48.5 percent of the variations in STM practices and 35 percent of the variation in firm performance. Obviously, there are other factors that have yet to be explored in order to explain the variability in our conceptual model.

We based our research on the fact that proper strategic plans and skills are needed to exploit food markets. Results support the view that internal organization resources are a critical link to strategic practices (Barney & Hesterly, 2010) by discussing specific items in the study area context. The study contributes to the literature by providing a clarified categorization of important and relevant items for quick managerial actions. Thus, the findings provide various starting points for improving management practices and political and administrative actions. Since Tanzania has targeted the country's manufacturing sector to increase its contribution to GDP from 8 to 15 percent between 2009 and 2015 (MoFEA, 2010), knowledge and skills should be promoted, and research findings translated into productive actions. Overall, this research is an early inquiry into the strategic management process for firms of this nature in an emerging African economy. Much needs to be accomplished if it is to serve agribusinesses in the years ahead. Therefore, deeper qualitative and quantitative explorations are required in the future.

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## Appendix 2-1: Descriptive Statistics of Variable Items

Item	Statement/Question	Mean	Std. Dev
AGE	Number of years since firm establishment (yrs)	43	10.699
SIZE	Capital investments in Tanzanian shillings (5 groups) Size of the Firm (SIZE): Scale: 1=below 5 mil TZS, 2=5 to 25 mil TZS 3=25 to 50 mil TZS; 4=50 to 100 mil TZS; 5=above 100 mil TZS	2.04	1.112
Formal status (FORMAL): Formalization status of the firm (scale from 1=strongly disagree to 5=strongly agree)			
FORM_1	You have a picture of an organization structure.	3.11	1.060
FORM_2	You have indicated clearly the division of work for employees.	3.39	1.035
FORM_3	You have written a clear business plan.	3.17	1.035
FORM_4	You are able to abide by all legal business regulations.	3.47	1.066
Investment Level (INVEST): 1=Very low, 2=Low (25%), 3=Average (50%), 4=High (75%) 5=Very high (up to 100%)			
INVEST_1	How much have you invested in firm buildings?	2.38	1.385
INVEST_2	How much have you invested in firm's motor vehicles?	2.04	1.165
INVEST_3	How much have you invested in employee training?	2.50	1.211
INVEST_4	How much have you invested in production technology?	3.41	1.028
INVEST_5	How much have you invested in office tools (raw materials, salary, water and electricity tools)?	2.82	1.332
INVEST_6	How much have you invested in marketing activities?	2.95	1.211
Firm's access to information (INFO) Scale: 1=Completely inaccessible 2=Inaccessible, 3= Average access, 4=Accessible and 5=Highly accessible			
INFO_1	Information on where to get raw materials	4.34	0.941
INFO_2	Information on changes in product prices	4.04	1.049
INFO_3	Information on where to sell	3.97	0.993
INFO_4	Information concerning customers' whereabouts	3.89	1.014
INFO_5	Information about when to sell	3.92	1.013
INFO_6	Information on competitors	3.70	1.128
INFO_7	Information on tax rates	3.38	1.286
INFO_8	Information on trade associations	3.61	1.177
Level of manager's expertise (EXP) scale from 1=strongly disagree to 5=strongly agree			
EXP_1	Level of expertise in bookkeeping and accounting	3.03	1.094
EXP_2	Level of expertise in managing employees	3.45	1.053
EXP_3	Level of expertise in marketing techniques	3.26	1.056
EXP_4	Level of expertise in financial management	3.21	1.107
EXP_5	Level of expertise in stocktaking & recordkeeping	3.36	1.081
EXP_6	Level of expertise in food quality & safety standards	3.56	1.056
EXP_7	Level of expertise in customer care	3.72	1.006
EXP_8	Level of expertise in product presentation	3.37	1.074
EXP_9	Level of expertise in food processing	3.73	1.070
Input availability (INPUT) Scale: 1=Not available 3=Available 5=Easily available			
INPUT_1	Availability of Agricultural Inputs	4.34	0.870
INPUT_2	Availability of Non-Agricultural Inputs	3.85	1.014

*Chapter Two: The Impact of External and Internal Factors on Strategic Management Practices of Agribusiness Firms in Tanzania*

Item	Statement/Question	Mean	Std. Dev
Access to public infrastructure level (INFRA): scale from 1=strongly disagree to 5=strongly agree			
INFRA_1	The firm is located along the regional highway.	3.41	1.273
INFRA_2	The firm is in the city center.	3.42	1.265
INFRA_3	There is access to telephone services.	4.42	0.695
INFRA_4	There is access to electricity.	4.40	0.730
INFRA_5	There is access to water.	4.37	0.749
INFRA_6	There is continuous phone service.	4.36	0.799
INFRA_7	There is a continuous and uninterrupted electricity supply.	3.11	1.246
INFRA_8	There is a continuous and uninterrupted water supply.	3.21	1.254
Access to Funds (FUNDS): Scale: 1=Very poor 2=Poor 3=Fair 4=Good 5=Very good			
FUNDS	Access to funds aggregate mean score	3.4	0.79
Strategic management practices (STM) practices (scale from 1=Strongly disagree to 5=Strongly agree)			
STM_1	You have developed a list of strengths and weaknesses (of the firm).	3.32	1.301
STM_2	You are informed about all opportunities that are good for firm development.	3.39	1.298
STM_3	You understand your customers and what products they need.	3.70	1.304
STM_4	You have visualized what your firm might be like five to ten years from now.	3.38	1.271
STM_5	You have developed a list of the firm's objectives.	3.37	1.252
STM_6	The objectives are regularly updated.	3.14	1.261
STM_7	The objectives are known to every employee.	3.24	1.318
STM_8	You have a fully developed operational procedures manual.	2.91	1.354
STM_9	Work procedures are fully communicated.	3.24	1.320
STM_10	The procedures are fully understood by every employee.	3.42	1.353
STM_11	The firm can afford to finance actual implementation of strategies.	3.16	1.247
STM_12	Employees are fully committed to the implementation of strategies.	3.47	1.293
STM_13	There is an adequate number of staff to implement firm strategies.	3.19	1.303
STM_14	There are enough competencies to implement the strategies.	3.10	1.254
STM_15	You regularly compare your activities to your plans.	3.41	1.273
STM_16	You develop alternative plans.	3.24	1.279
STM_17	You regularly compare your strategies with those of your competitors.	3.33	1.331
Performance (PERF) 1=Decrease 2=Slight decrease 3=The same as in the preceding year 4=Slight increase 5=Increase			
Rev_1a	Sales revenue this year (2013)	3.73	1.082
Rev_1b	Sales revenue last year (2012)	3.60	0.971
Rev_1c	Sales revenue in 2011	3.50	0.991

### Appendix 2-2: Collinearity Assessment

<i>Model 1:</i>	<i>Model 2:</i>	<i>Model 3:</i>	
INFO (1.23)	INPUT (1.028)	FORMAL (1.601)	AGE (1.200)
EXP (1.44)	INFRA (1.028)	SIZE (1.263)	Rs (1.694)
INVEST (1.12)		EXT (1.344)	FUNDS (1.302)
(as predictors of Rs)	(as predictors of EXT)	(as predictors of STM)	

**Note:** VIF values in Parentheses. VIF is a metric for multicollinearity

### Appendix 2-3: Effect Sizes ( $f^2$ and $q^2$ values)

Path Relationships	Path Coeff.	t-values	p-value	Sig.	$f^2$ Effect Size	$q^2$ Effect Size
SIZE → STM	0.231	5.126	0.000	***	0.07 Small	0.05
AGE → STM	0.135	3.211	0.002	***	0.03 Small	0.02
FORMAL→STM	0.227	3.464	0.000	***	0.06 Small	0.03
RS → STM	0.334	5.366	0.000	***	0.11 Small	0.06
EXT → STM	0.051	0.964	0.168	NS	0.004 Small	0.004
FUNDS → STM	0.089	1.716	0.086	*	0.01 Small	0.01
STM → PERF	0.591	13.786	0.000	***	0.31 Medium	0.08
<b>Endogenous latent variables</b>						
STM	<b>Q<sup>2</sup> values</b>		0.337			
PERF			0.237			

**Note:**

$Q^2 > 0$  means there is predictive relevance.  $Q^2 < 0$  indicates there's no predictive relevance. "q-squared" ( $q^2$ ) values represent the effect sizes. Values of 0.02, 0.15 and 0.35 indicate that the independent variable has a small (S), medium (M) and large (L) predictive size for our dependent variable.

## Chapter Three

### 3 Agribusiness Firm Resources and Performance: The Mediation Role of Strategic Management Practices

Theresia Dominic and Ludwig Theuvsen

#### Abstract

This study investigates the relationship between firm resources, strategic management practices and firm performance of small agribusiness firms. Looking at level of managerial expertise and access to market information as primary resources, this research presents various arguments about their contribution to firm performance. The objective is to demonstrate the role of strategic management practices in facilitating the effective use of these resources to achieve agribusiness firm performance. Results from a structural equation model using a sample of 229 agribusiness firms from Tanzania indicate that the investigated resources alone do not directly contribute to firm performance unless there is application of strategic management as a potential mediator. Further investigation based on multigroup analysis shows contingency effects in the resources-performance relationship but significant influence of application of strategic management practices on performance across all groups of firms. The results imply that managers ought to identify a fit between their resources and strategic actions in order to enhance firm performance. The study provides manifold managerial implications for small firms that seek to improve firm performance.

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### **3.1 Introduction**

The relationships between firm resources, corporate and competitive strategies and firm performance are at the focus of strategic management (for instance, Grant, 2013) as well as agribusiness management research (e.g., Theuvsen et al., 2010). Many researchers have also looked at firm resources, strategic management (STM) practices and performance in small agribusiness firms. First, it is because of small firms' challenges in utilizing resources to improve firm performance (Bloom & Van Reenen, 2007; Edelman et al., 2005), for instance due to a lack of sufficient management capabilities (Beaver, 2007; Hatten, 2012). Furthermore, small firms' potential for growth strongly depends on improvement of their strategic behavior (Bakker, 2011).

Performance of small agribusiness firms has also been the focus of developing economies such as Tanzania (Dinh et al., 2013; HODECT, 2010). Development programs in developing countries often make efforts to commercialize the food sector; hence new pathways to enhance firm performance are needed, especially with regard to small and medium-sized firms (Byerlee et al., 2013). But, current practices are often insufficient, especially in African agribusiness firms, in embracing essential management tools (Dinh et al., 2013; IFAMR, 2014) such as strategic management practices as indicated in Beaver (2007)'s study. The truth is that we know very little about STM practices of small agribusiness firms. Due to this lack of knowledge, practices such as setting performance goals and analyzing a firm's environment are wrongly considered to be irrelevant for these firms. Instead, the STM process is thought to be exclusively applicable to large corporate firms. In this regard, lack of strategic practices causes difficulties for small firm managers to market their products (Admassie & Matambalya, 2002; Kinda & Loening, 2010). In Tanzania, for instance, the essence of improved firm competitiveness is not seen even though managerial training for managers of small firms is conducted to improve strategic firm operations. This is evidenced by weak entrepreneurial and workers' skills as well as increasingly unprofitable transactions among agribusinesses in Tanzania (Dinh et al., 2013; Fafchamps & Quinn, 2012). The insufficient focus on STM practices is also evidenced in other African countries by, for instance, production of low quality of food products, selling of products without processing, poor application of value adding activities, lack of good quality packaging materials compared to imported share, and inadequate capacity to secure loans from

financial institutions as a result of poor business planning and record keeping (IFAMR, 2014)

In this context the role and importance of resources have been researched extensively (Barney, 1991; Mugeru, 2012; Penrose, 1959). Managerial expertise and capabilities are key resources to organizations as long as they are strategically positioned to enhance performance (Ambrosini & Bowman, 2009; Mugeru, 2012; Pansiri & Temtime, 2008). They are also considered as primary resources in the development of food value chain structures (Mikkola, 2008). Nevertheless, some studies which analyzed the effect of human capital on performance indicate that the link can be both direct and indirect (Hitt et al., 2001), meaning that a certain level of expertise might not guarantee overall firm performance especially if there is insufficient ability to apply the skills or if the skills are not valuable for firm-specific operations (Barney, 2001). Several cases of agribusiness firms in Africa have shown poor managerial expertise in business operations (IFAMR, 2014) and those that succeeded have indicated different styles of management and strategy. This supports earlier findings from Chan et al. (2006) that small firms are heterogeneous in their strategy as they develop. Hence, the relationship between managerial expertise and firm performance as well as differences in the influence of managerial expertise on performance needs to be examined in more detail.

Access to market information is another resource that is crucial to agribusiness firms because it enhances better positioning in competitive markets (Byerlee et al., 2013; Lwoga et al., 2011). Small firms operating in a competitive environment may be unable to process information to their own advantage due to a lack of preliminary strategic goals and an unwillingness to plan properly (Beaver, 2007). When food processors are unaware of market information, they remain at a mercy of other actors in a value chain who might dictate unfair business terms (HODECT, 2010). In this case, information access such as knowledge about the availability of raw materials, prices, competitors' actions, trade associations, suppliers and amount of demand may have an impact on strategy planning and hence firm performance (Byerlee et al., 2013). Moreover, the style of using information could differ among firms due to the premise that firms' journeys of attaining performance are heterogeneous (Chan et al., 2006). Therefore, the relationship between access to market information and firm performance as well as differences in the influence of the information on performance also need to be examined more thoroughly.

Even though level of managerial expertise and access to market information are key resources to firms, there are variables that intervene in determining firm performance; therefore, as indicated earlier, their direct contribution to performance is not always the case. For example Penrose (2009) in her latest reviewed work argues that resources themselves are not adequate for successful operations, rather it is the way these resources are used. Therefore, we posit that the application of STM practices is among such intervening variables. One of the methods for examining the role of STM practices as an intervening variable is through mediation analysis. The analysis specifies the existence of a significant intervening mechanism between an independent and dependent variable, which might not exist in the absence of a mediator (Baron & Kenny, 1986).

Against this background, our general research objective is to demonstrate the pivotal role of STM practices in facilitating effective use of potential resources to increase firms' performance. More specifically, we want to analyze whether both managerial expertise and access to market information link directly to firm performance or whether this relationship is mediated by application of STM practices. Further analysis will uncover group differences in deployment of firm resources such as managerial skills and access to market information in achieving firm performance through application of strategic management practices. In doing so we take a deeper look into segments of firms that are homogenous in the contribution of STM practices as a mediator. The results could help to motivate small firm managers to utilize essential managerial tools for firm operations.

The remainder of this paper is organized as follows: In Section 3.2 we present the literature on the concept of strategic management in an agribusiness context, our hypotheses and conceptual framework. In Section 3.3, we describe the research design and data used for our model estimation. Section 3.4 presents results of a survey of 229 Tanzanian agribusiness firms using partial least squares methodology to evaluate our structural equation model. Further analyses are conducted to detect the mediating effect of STM practices. A multigroup analysis of our sample reveals differences between different segments of small agribusiness firms with regard to the relationships between firm resources, STM practices and firm performance. Section 3.5 provides a discussion on managerial implications and some concluding remarks.

## **3.2 Literature Review**

### **3.2.1 Role of Strategic Management Practices (STM)**

Based on earlier writings in the 1950s and 1960s, the field of strategic management (STM) emerged mainly during the 1970s and early 1980s from the social and administrative sciences because of a growing interest to understand the principles driving organizations to sustainable performance (for an excellent review, see Hoskisson et al., 1999). The field is distinguished from other managerial activities which are concerned with day-to-day, short term and tactical activities. The STM process of a firm starts by the definition of clear vision, mission and objectives, defined by using information from environmental analysis and a thorough analysis of firm resources. The process is followed by strategy planning, strategy implementation, strategy evaluation and control (Grant, 2013; Hitt et al., 2009). STM practices bring a long-term and big picture perspective and give a clear purpose of an organization and the direction it intends to go (Andrews, Boyne, & Walker, 2006; Stacey, 2011). The targeted audiences are managers, managers-to-be and policy-makers whom should be reached for influence, while shaping both training institutions and markets (Mahoney & McGahan, 2007). However, the users, mostly of small firms often view STM as being unnecessarily theoretical and refrain from engaging in STM practices because it is either a complex or a demanding process considering the firms' limited capital and other resources (Beaver, 2007).

With the development of the resource-based view in strategic management (RBV) (Barney, 1991; Wernerfelt, 1984), the STM field has increased its emphasis on identifying valuable firm resources in achieving sustainable competitive advantage and above-average financial returns. Since firms have a bundle of specialized resources that wait to be utilized effectively, the view posits that with well managed resources, firms will have the potential to create economic value. The potential is realized when the resources are aligned with the overall firm strategy (Barney & Hesterly, 2010; Mugeru, 2012; Wernerfelt, 1984). Its framework is adopted for analyzing performance because RBV emphasizes strategic actions for managers to plan and deploy these resources to maximize returns. Also, Edelman et al. (2005) imply that the theory incorporates application of strategic actions as a mediating variable between resources and firm performance. The aim of the RBV is to enable firms to leverage those rare, valuable,

non-imitable, non-substitutable and durable resources that only contribute to firm performance (Barney, 2001).

In the process of leveraging the resources, depending too much on tangible resources such as machinery and equipment is not as beneficial to firm's survival. Ability and knowledge to use it are more decisive. Therefore, we include managerial expertise and access to information as critical resources in our conceptual model (see Figure 3-1) because they guarantee a firm's survival. For example, a firm that has lost its tangible resources but kept the skills and knowledge of its workforce could continue its operations relatively quickly (Becker et al., 2001). Thus, the strategic management field calls for competency based competition in order for small firms to respond to existing challenges and opportunities. The view calls for firm managers to expand their skills, competences and information base in order to face competition (Prahalad & Hamel, 1990; Sanchez, 2004); after all, these resources are more difficult for competitors to detect or copy (Gorman & Thomas, 1997).

Penrose (2009) indicates that resources themselves are not enough inputs for firm operations but it is the way that these resources are used. Regarding managerial skills as a primary resource for firms (Wright et al., 2001) and a target area of development in food sector policy reforms (Dinh et al., 2013; HODECT, 2010), the skills can contribute to firm performance as long as they are in line with a firm's strategy (Edelman et al., 2005) and adequately used for designing and implementing firm strategies that properly reflect a firm's external situation and its internal resources (Grant, 2013). Therefore, we argue that direct relationship is not plausible unless there are strategic practices that play a key role in ensuring better utilization of resources to achieve performance. Therefore we hypothesize:

*H<sub>1</sub>: Application of STM practices positively mediates the relationship between level of managerial expertise and firm performance.*

As the firms operate in a dynamic competitive environment, there is more focus on developing human capital because it can sustain growth of the firm over time (McWilliams et al., 2001; Wright & McMahan, 2011). Thus, there is a significant contribution to firm performance. In the agribusiness value chain, research shows that effect of manager/owners' level of skills is a crucial resource for firms (Boehlje et al.,

2011) as well as for firm performance (Cooper et al., 1994). Moreover, Hatten (2012) indicated that one of the factors causing a business failure is a lack of expertise of the owner and mostly in firm management. And in small firms, the managers are usually generalists because they have limited specialized management. He also explained, "...they (i.e. the managers) may not be able to afford to hire full-time experts who could help avert costly mistakes. On the other hand, their limited resources will not permit them to make mistakes and stay in business" (p. 16). Due to the fact that there is a considerable amount of literature that shows similar situations in small firm performance, there are strategies that call for management training programmes suitable for the needs of food processors (see HODECT, 2010).

*H<sub>2</sub>: In small firms, level of managerial skills is positively associated with firm performance.*

There is a growing acceptance that people are strategically important among internal resources of firms (Wright et al., 2001). This is because their level of skills and expertise plays an important role in the achievement of firms' strategies (Barney, 1991; Díaz-Fernández et al., 2014). In small firms with a low number of employees, the manager's level of skills is crucial to the achievement of firms' strategies (Boehlje et al., 2011; Dominic & Theuvsen, 2015). As top managers, they are solely responsible for the strategic direction of the firms (Grant, 2013). However, research indicates that managers from small food processing firms have poor ability to engage in strategic actions such as to calculate and anticipate cost of production to analyze the market conditions and consumer needs to set strategic prices etc. (Dietz et al., 2000). Some managers do not engage in the strategic management practices due to lack of skills and knowledge to engage themselves in the STM process (Beaver, 2007). Thus, if the managers receive more training in general firm operations, the firms are likely to increase the application of STM practices and improve the precondition for achieving their strategic objectives.

*H<sub>3</sub>: An increase in managers' expertise is associated with an increase in the application of STM practices.*

Access to market information in terms of data and knowledge can allow firms to understand competitors' actions, learn about customers' preferences and react effectively in order to have a smooth flow of their products (Hough & White, 2004). However, access to information does not guarantee firm success; again, the ability to use it is

crucial. The reason is that, even though human beings are intendedly rational, there are some limits to their abilities to process and use the information (Simon, 1957). Strategic behavior is also needed to improve the systematic use of information for decision making within a firm (Lieberman & Asaba, 2006). In this case, we argue that the application of strategic management practices has a role in explaining the relationship between access to market information and firm performance.

*H<sub>4</sub>: Application of STM practices positively mediates the relationship between access to market information and firm performance.*

Contrary to that, other studies establish a direct link between access to information and agribusiness firm performance (Lwoga et al., 2011; Robert et al., 2011). The findings also indicate that quick and easy access to information satisfies the needs of the actors in the food supply chain. Other studies added that firms can improve their performance by just exploiting relevant information for the concerned market (Siyao, 2012). On the other side, poor access to information has been referred to as a potential constraint in agribusiness sector development (Elly & Silayo, 2013; Siyao, 2012) particularly in small firms which are vulnerable to large competitors' actions. Therefore, firms that have more access to information can obtain competitive advantage over firms that do not (Nichter & Goldmark, 2009).

*H<sub>5</sub>: In small firms, access to market information is positively associated with firm performance.*

Furthermore, firms are in a good position to understand the environment when they acquire information about raw materials, prices, competitors, customers, etc. As a result the firms may formulate strategies to buffer themselves against any threat that could cause trouble for the business (Hitt et al., 2009). Also the information can help firms to seek ways to respond to new opportunities (Nichter & Goldmark, 2009). Through the information firms are more likely to be aware of existing products from other firms and come up with effective strategies to avoid falling behind their rivals (Lieberman & Asaba, 2006).

*H<sub>6</sub>: The more firms have access to market information, the more they apply STM practices.*

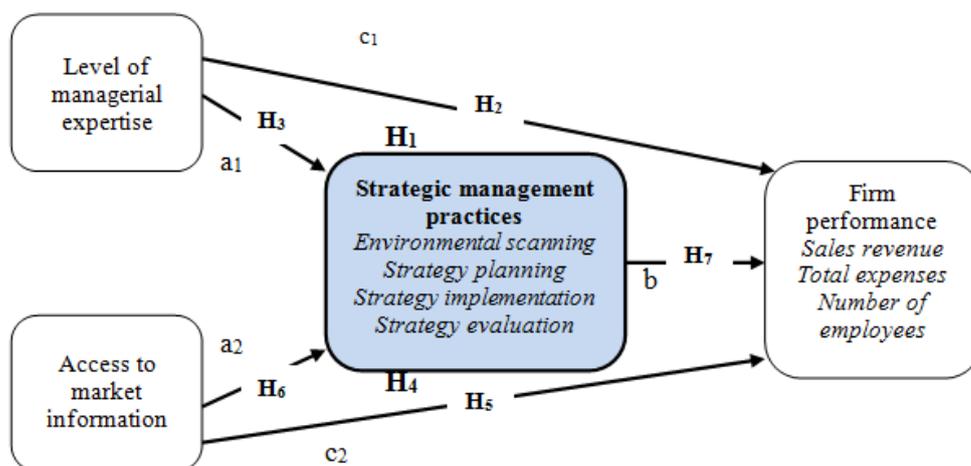
Firms have a chance of improving their performance levels through application of STM practices, for example through engaging in formulation of strategic plans, strategy implementation (Rudd et al., 2008) and environmental scanning (Bakar et al., 2011) just to mention a few. Other studies indicated that firms using STM tools achieved rapid growth in performance (Woods & Joyce, 2003) and increase in sales and revenue (Andrews et al., 2009; Andrews et al., 2006; Beaver, 2002; Bracker & Pearson, 1986; Georgellis et al., 2000). Hence including STM process in day to day business activities can help ensure firm survival and success (Stacey, 2011).

*H<sub>7</sub>: The greater the extent of strategic management practices, the better the firm's performance.*

Unfortunately, small firms have a tendency to avoid engaging in strategic planning due to their limited capital and poor knowledge of the process (Beaver, 2002). For example reports concerning agribusiness challenges have indicated that agribusiness firms in Tanzania fail to perform well in food markets due to poor utilization of market information, limited entrepreneurial capabilities and technical and managerial knowledge on manufacturing, low worker skills, poor operations logistics (Dinh et al., 2013) and a lack of ability to attract investors (Katera, 2009). Therefore, the reports imply that there is poor engagement in planning, implementation and control of firm strategies.

Our model as demonstrated in Figure 3-1 summarizes our review and discussion of the existing literature.

**Figure 3-1: Conceptual Model**



**a<sub>x</sub>, b<sub>x</sub> and c** denote path coefficients for assessing structural model; **H<sub>x</sub>** denotes research hypotheses

Source: Authors' illustration

The food processing sector includes a large fraction of small businesses (NBS, 2012) which are quite different as they grow and develop. Chan et al. (2006) indicated that small firms have a tendency of developing their own managerial style and strategy as they seek to grow. In the process of achieving performance, the firms do not follow a single progression of development (Delmar et al., 2003). From a dynamic capability perspective, a firm may alter or renew its resources in order to increase its capacity in a rapidly changing environment (Teece, 2007).

Therefore, some firms may utilize a resource that fits its needs at the particular time. For example, a firm may either utilize external information in order to strategize according to competitors' actions; or utilize its skills and expertise in order to strategize against competitors' actions. This reflects the basic idea of equifinality. It says that firms can reach the same final state from different initial conditions and by a variety of paths (Gresov & Drazin, 1997; Sinha & Van de Ven, 2005). Therefore, we expect firms to behave differently regarding their management style, and the study will seek to uncover differences among firms to understand which ones behave differently in the use of firm resources.

### **3.3 Methodology**

#### **3.3.1 Data Collection and Sample Description**

The study is a cross sectional survey conducted between May and August 2013. Data was collected through interviews with firm owner-managers with an aid of a structured questionnaire. The sample consists of firms dealing with food processing of cereals, vegetables and fruits, located in Arusha, Dodoma and Tanga regions in Tanzania. The selection of firms followed a random sampling technique from a list of processors from Small Industries Development Organization (SIDO). The organization deals with improving the effectiveness of small industries in the country. Over 331 firms were contacted and agreed to participate in the interviews; 229 questionnaires were qualified for analysis after excluding half-filled questionnaires. In general, the firms had a mean capital investment of 26.94 million TZS ( $\approx$  16,600 US\$) and an average of  $7\frac{1}{2}$  years of business operations.

In the firms surveyed, there were three major types of products which are sold in processed forms; these were cereal products (65.9%), followed by fruit products (16.4%), vegetable products (11.5%) and other (6.2%). Almost all firms (98.5%) buy farm produce from local farmers and only very few firms (1.5%) import from neighboring countries. The respondents of this study were knowledgeable about general overview of the firm and cornerstones of their strategies. Their ages ranged from 18 to 78 years (average: 43 years), with an average of 11.05 years of school education. Table 3-1 shows additional details about the sample.

**Table 3-1: Descriptive Information about the Sample (N=229)**

<b>Variables</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Min</b>	<b>Max</b>
<i>Information on Firm</i>				
Firm Age (yrs.)	7.54	5.03	3	28.58
Full time employees	5.00	3.41	3	20
Capital investment in million TZS	26.94	51.81	0.3	350
Self-financed firms (d)	0.27	0.40	0	1
Non-perishable products (d)	0.66	0.48	0	1
Family business (d)	0.26	0.44	0	1
<i>Information on Respondent</i>				
Age	43.00	10.70	18	78
Years of education (yrs.)	11.05	3.51	1	22
Gender (1=male 0=Female)	0.39	0.49	1	0

(d) Dummy variable

### **3.3.2 Measurement of Variables**

The study uses the primary data collection questionnaire survey technique to achieve its objective. Four constructs are used for the model estimation and they were measured using five point Likert scales to determine the extent to which respondents agree or disagree to each of the statements in the questionnaire. First, level of managers' expertise (EXP) was represented by 9 items. Second, access to market information (INFO) by 8 items and third, strategic management practices (STM) by 17 items divided into four dimensions, i.e. (a) environmental scanning, (b) strategic planning, (c) strategy implementation and (d) strategy evaluation. The STM measure was adopted from Wheelen and Hunger (2006)'s work. Fourthly, firm performance (PERF) was represented by 9 items in three dimensions, i.e. trends in revenue, total expenses and number of employees as adopted from the work of Remaud and Courdec (2006).

A descriptive analysis of the constructs used for our model estimation is presented in Appendix 3-1, which shows list of items, mean and standard deviation values. The

data were analyzed using a second generation analysis technique referred as partial least square structural equation modelling (PLS-SEM) through smartPLS 2.0 M3 software (Ringle et al., 2005). It is a variance based SEM technique, non-parametric and appropriate for complex structural models. The technique analyses relationships represented in path diagrams that include a web of observed and unobserved variables, whereby a dependent variable in one path can become an independent variable in another path (Hair et al., 2014), whilst in regression models, there exists a clear distinction between dependent and independent variable.

### **3.3.3 Model Estimation**

In estimating the PLS path models, a two-step analysis is carried out to assess the quality of model results: measurement model analysis and structural model analysis. The measurement model is used to assess the relationships between indicators and constructs, while the structural model measures the relationships between the constructs. From the measurement model analysis, we assess the validity and reliability of the items of each construct (see Table 3-2). Regarding the reliability of items, all standardized loadings were significant at the 0.01 level and exceeded the threshold level of 0.708 (Hulland, 1999); however the rule is not rigidly applied to early stages of research hence two items in the 'INFO' construct which were above 0.588 were retained (Hair et al., 2010). Items with low loading below 0.5 were deleted because they were regarded as unreliable.

To check for convergent validity, almost all Average Variance Extracted (AVE) values were above the threshold of 0.5 (Fornell & Larcker, 1981; Hair et al., 2010). The AVE value for INFO variable was kept because it was close to the threshold value. To check for the internal consistency reliability of the items, each latent variable's Composite Reliability (CR) and Cronbach's alpha ( $\alpha$ ) values were evaluated (see Table 3-2); the values were above their thresholds of 0.6 and 0.7 respectively (Nunnally, 1978). In PLS structural equation models CR values provides more robust measures of reliability than the alpha values, however the difference is inconsequential (see the comparison in Peterson & Kim, 2013). Therefore, the measures have adequate levels of convergent validity and internal consistency reliability.

**Table 3-2: PLS Model Quality Criteria**

	Loadings	AVE	CR	Cronbach $\alpha$
EXP (Level of expertise of the manager)		0.642	0.899	0.860
EXP_1	0.749			
EXP_2	0.833			
EXP_3	0.846			
EXP_6	0.787			
EXP_8	0.786			
INFO (Information Access)		0.497	0.830	0.741
INFO_2	0.655			
INFO_4	0.800			
INFO_5	0.794			
INFO_6	0.665			
INFO_7	0.588			
PERF (Firm Performance)		0.680	0.864	0.763
REV_1a	0.770			
REV_1b	0.875			
REV_1c	0.826			
STM (Strategic management practices)		0.867	0.963	0.949
STM_A	0.926			
STM_B	0.930			
STM_C	0.933			
STM_D	0.936			

**Note:** AVE; Average Variance Extracted, CR; Composite Reliability

In addition, in Table 3-3 discriminant validity is confirmed through the application of the Fornell-Larcker criterion (Fornell & Larcker, 1981). The criterion is met when the square root of the AVE of each construct is higher than the construct's highest correlation with any other construct in the model. The cross loadings report is presented in Appendix 3-2. Moving across the rows reveals that each item loads higher on its respective construct than on any other construct. The report further verifies discriminant validity.

**Table 3-3: Fornell-Larcker Criteria**

	EXP	INFO	PERF	STM
EXP	<b>0.801</b>			
INFO	0.494	<b>0.705</b>		
PERF	0.384	0.377	<b>0.825</b>	
STM	0.538	0.478	0.581	<b>0.931</b>

From the structural model analysis, we check if there is a multicollinearity problem. SPSS software is used to run this test to check for the Variance Inflation Factor (VIF) values. Results show that the values are below the threshold value of 5.0 hence indicating no multicollinearity problem among predictor variables (see Appendix 3-3). The variance explained by the model ( $R^2$ ) is also a criterion for evaluating the structural model. The  $R^2$  for STM and PERF constructs are 34.9 and 35.3 per cent respectively,

meaning that the independent variables in the model explain 34.9 percent of the variation in STM and 35.3 percent of the variation in PERF. Moreover, results from  $f^2$  and  $q^2$  values (see Appendix 3-4) indicate that all values are above zero hence there is an impact of the predictor variables on their target variables, as well as predictive relevance.

After the two-step analysis for verifying reliability and validity of our measures, we present results of path relationships in the structural model. Thereafter, the results from the structural model are used to conduct mediation analysis for testing hypotheses H<sub>1</sub> and H<sub>4</sub>. Finally, a multigroup analysis is conducted to uncover heterogeneity within our sample, with the application of FIMIX-PLS technique (Hahn et al., 2002; Sarstedt et al., 2011).

### 3.4 Results

#### 3.4.1 PLS Structural Equation Model Analysis

Figure 3-2 shows the visual results while Table 3-4 shows detailed results of the relationships between variables, path coefficients, R-squared, t-values and p-values. Significance of the path coefficients was determined via a bootstrapping procedure, where the sample size was increased to 5,000. The results show that level of managerial skills and access to market information are positively associated with an application of STM practices (H<sub>3</sub>; 0.399\*\*\* and H<sub>6</sub>; 0.281\*\*\*) and both explain 34.9 percent of the variation in the application of STM practices.

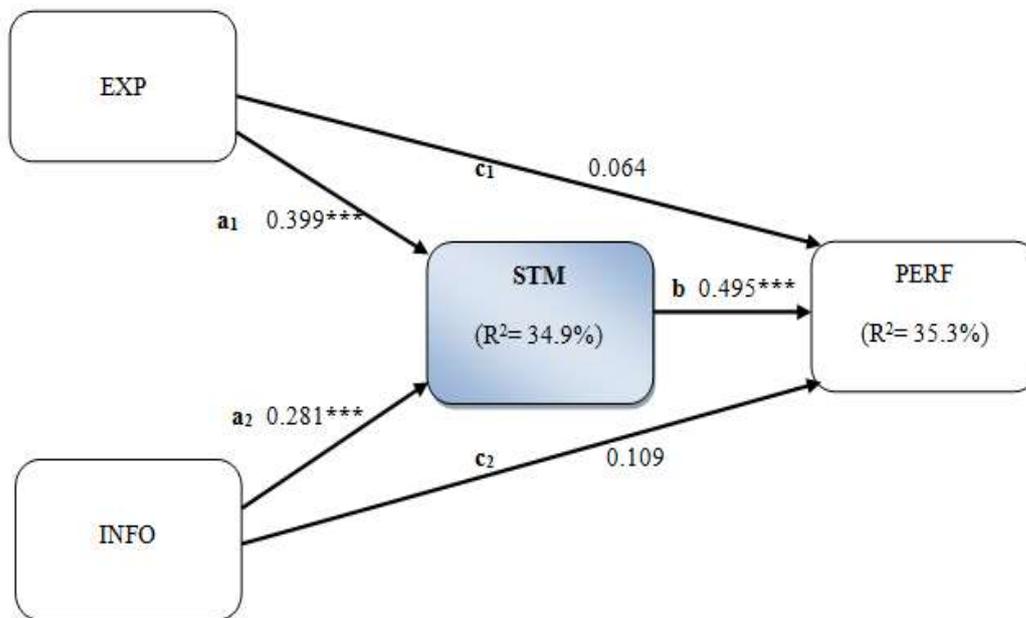
**Table 3-4: Path Coefficients and Significance Testing**

Path Relationships	Path	Path Coeff.	t-Values	p-Values	Sig.	Hypot hesis	Decision
EXP→PERF	<b>c<sub>1</sub></b>	0.064	0.570	0.284		H <sub>2</sub>	Not supported
EXP→STM	<b>a<sub>1</sub></b>	0.399	4.139	0.000	***	H <sub>3</sub>	Supported
INFO →PERF	<b>c<sub>2</sub></b>	0.109	1.115	0.132		H <sub>5</sub>	Not supported
INFO →STM	<b>a<sub>2</sub></b>	0.281	2.917	0.002	***	H <sub>6</sub>	Supported
STM →PERF	<b>b</b>	0.495	5.097	0.000	***	H <sub>7</sub>	Supported
<b>Relationship without STM as a mediator</b>			(Ringle et al., 2012)				
EXP→PERF	<b>c<sub>1x</sub></b>	0.399	5.118	0.000	***		
INFO →PERF	<b>c<sub>2x</sub></b>	0.382	7.130	0.000	***		

\*\*\* p < 0.01, t value > 2.327; \*\*p < 0.05, t value > 1.645; and \*p < 0.1, t value > 1.282

In turn, the greater the extent of STM application the better the firm performance ( $H_7$ ; 0.495\*\*\*). The model explains 35.3 percent of the variation in firm performance. However, the influences of managers' level of expertise and access to information on firm performance were not significant ( $H_2$ ; 0.064 and  $H_5$ ; 0.109) which is contrary to what is frequently indicated in the literature. The influence might be brought by mediation effect hence we proceed with  $H_1$  and  $H_4$  testing in Section 4.2.

**Figure 3-2: Results of the PLS Model**



Source: Authors' calculations

Significance \*\*\*  $p < 0.01$ ,  $t$  value  $> 2.327$ ; \*\* $p < 0.05$ ,  $t$  value  $> 1.645$ ; \* $p < 0.1$  and  $t$  value  $> 1.282$ .

### 3.4.2 Mediator Analysis

Mediation in path models can be assessed by examining the relationship of the direct link between two latent variables and the indirect link via the potential mediator variable. From our model, two paths are assessed: first, EXP→PERF relationship via STM and second, INFO→PERF relationship via STM (see Figure 3-2). In the first case mediation can be assumed if the following conditions are met (see Baron & Kenny, 1986; Hayes, 2012):

- (a) Variations in EXP levels significantly account for variations in the mediator STM, i.e. path  $a_1$ .

(b) Variations in STM as a mediator significantly account for variations in PERF, i.e. path b.

(c) When paths  $a_1$  and b are controlled, path  $c_1$  is no longer significant.

All the conditions in the first case are met because with reference to Table 3-4, path  $a_1$  and path b are significant. When the STM variable is removed from the model, path  $c_1$  has a value of  $\beta=0.399$ ,  $t\text{-value}=5.118$ . Oppositely, when it is included in the model, path  $c_1$  is not significant ( $\beta=0.064$ ,  $t\text{-value}=0.570$ ). Next, we test for significance of the mediation to find support for  $H_1$ . Indirect effect of the relationship between EXP and PERF is 0.198, which is a product of paths  $a_1$  and b (i.e.  $0.399 \times 0.495$ ). Thereafter, the t-value is determined by running a nonparametric bootstrapping procedure (Preacher & Hayes, 2008). The results show that the t-value is 2.955; thus, the mediation effect is significant at the 0.01 level. Therefore,  $H_1$  is supported.

In the second case, all conditions are met because path  $a_2$  and path b are significant but when the STM variable is removed from the model, path  $c_2$  has a value of  $\beta=0.382$ ,  $t\text{-value}=7.130$ . Oppositely, when STM is included again in the model, path  $c_2$  is no longer significant ( $\beta=0.109$ ,  $t\text{-value}=1.115$ ). Next, we test for significance of the mediation in order to test for  $H_4$ . The indirect effect of the relationship between INFO and PERF is 0.139, which is a product of paths  $a_2$  and b ( $0.281 \times 0.495$ ). Next the t-value is determined by again running a nonparametric bootstrapping procedure (Preacher & Hayes, 2008). The results reveal that the t-value is 2.473,  $p=0.013$ , hence that the mediation effect is significant at  $p=0.05$  level. Therefore,  $H_4$  is supported indicating the role of STM as a mediator.

The next step is to check for the strength of mediation in the two relationships in order to convey its practical significance. VAF (Variance Accounted For) is an index that measures the strength by calculating the ratio of an indirect effect through a mediator to a total effect (Shrout & Bolger, 2002). With reference to path coefficients indicated in Figure 3-2 and Table 3-4, the following formula is used:

$$\text{VAF} = (a_x + b) / (a_x b + c_x)$$

**Table 3-5: Strength of Mediation**

Path Relationships (Hypotheses H <sub>1</sub> and H <sub>4</sub> )	VAF	Result
EXP → PERF path via STM	$= \frac{a_1 \cdot b}{a_1 \cdot b + c_1}$	Partial mediation
	$= \frac{0.399 \times 0.495}{0.399 \times 0.495 + 0.064}$	<b>75.4%</b>
INFO → PERF path via STM	$= \frac{a_2 \cdot b}{a_2 \cdot b + c_2}$	Partial mediation
	$= \frac{0.281 \times 0.495}{0.281 \times 0.495 + 0.109}$	<b>56.0%</b>

**Note:**

VAF > 80% = Full Mediation, 20% ≤ VAF ≤ 80% = Partial Mediation and VAF < 20% = No Mediation

Table 3-5 indicates that there is a partial mediation effect, i.e. STM mediates the relationships between EXP and PERF by 75.4 percent and between INFO and PERF by 56 percent. The STM would have to be above 80 percent value to qualify as a full mediator between the relationships. Full mediation would have suggested that the application of STM practices is the only tool or method that helps managers align their resources to achieve firm performance. Since there are several variables (not included in this study) that can help firms to increase performance it is unrealistic to expect that a single mediator would completely explain the effect of firm resources on firm performance.

### 3.4.3 Multigroup Analysis

Our next step is to investigate unobserved differences among firms to see whether different variable estimates occur for each group. Our approach is to apply a latent class analysis technique known as finite mixture PLS technique (FIMIX-PLS) from the smartPLS 2.0 M3 software (Hahn et al., 2002; Sarstedt et al., 2011). The technique is ideal for PLS path models and used to identify unobserved heterogeneity in our sample by producing homogenous segments according to the significant relationships that exist within a segment. FIMIX-PLS algorithm is run sequentially for several models, i.e. K= 2, 3, and 4; the results are presented in Table 3-6.

**Table 3-6: FIMIX-PLS evaluation criteria and relative segment sizes**

Models	AIC	BIC	CAIC	EN	Segments / sample sizes (n <sub>x</sub> )
K=2	1946.135	2045.712	2045.839	0.396	n <sub>1</sub> = 66% n <sub>2</sub> = 34%
<b>K=3</b>	<b>1868.781</b>	<b>1934.022</b>	<b>1934.104</b>	<b>0.504</b>	<b>n<sub>1</sub>= 27% n<sub>2</sub> = 22% n<sub>3</sub> = 51%</b>
K=4	2020.399	2154.314	2154.484	0.444	n <sub>1</sub> = 24% n <sub>2</sub> = 19% n <sub>3</sub> = 25% n <sub>4</sub> = 32%

**Note:**

K= Number of sub-groups or segments.  
 Criteria; Akaike's information criterion (AIC); Consistent AIC (CAIC); and Bayes information criterion (BIC).

The results in Table 3-6 justify a selection of 'K=3' model. Evaluation criteria for this selection involve lowest values of Akaike's information criterion (AIC), consistent AIC (CAIC), Bayesian information criterion (BIC) and highest values of entropy measure (EN) (Ringle et al., 2010; Sarstedt et al., 2011). The selected three segment model (i.e. K=3) indicates segment sizes of n<sub>1</sub>=27%, n<sub>2</sub>= 22% and n<sub>3</sub>= 51%. However, ex-post analysis is carried out and the segment sizes are redistributed to n<sub>1</sub>=22%, n<sub>2</sub>=22% and n<sub>3</sub>=56% according to best probabilities of segment membership. Thereafter, PLS algorithm is run separately for segments 1, 2 and 3 and the results of estimates for each path are presented in Table 3-7.

**Table 3-7: Path Coefficients for each segment**

	Overall (full model)	Classes/segments K=3		
		Segment 1	Segment 2	Segment3
EXP→PERF	0.064	0.685***	-0.573***	0.096 *
EXP→STM	0.400***	-0.177 **	0.314***	0.519***
INFO →PERF	0.109	-0.797***	0.604***	0.219***
INFO →STM	0.281***	0.876***	0.682***	-0.073
<b>STM →PERF</b>	<b>0.495***</b>	<b>0.552 ***</b>	<b>0.716***</b>	<b>0.706***</b>
R <sup>2</sup> (STM)	0.349	0.565	0.822	0.257
R <sup>2</sup> (PERF)	0.353	0.299	0.944	0.649
Sample size	N=229	n <sub>1</sub> =50	n <sub>2</sub> =50	n <sub>3</sub> =29

**Note:**

N=Full model, n= segment size; Path coefficient significant at \*\*\* p< 0.01; \*\*p < 0.05 and \*p < 0.1  
 Discriminant validity and reliability measures are verified for each segment (see Appendix 3-5)  
 Test for significant differences between segments are indicated in Appendix 3-7

Table 3-7 also shows that while level of managers' expertise emerges as the main driver to increasing firm performance in the first segment ( $n_1=50$ ), access to market information looms as the key driver in the second segment ( $n_2=50$ ). However, in the third segment ( $n_3=129$ ), application of STM practices has a stronger effect on firm performance than access to market information and level of managers' expertise. Furthermore, in segment 3 level of managers' expertise and market information are weak drivers of firm performance. Again, mediation analysis was conducted for each subgroup (or segment). Results show that STM was neither a potential mediator in segment 1 nor in segment 2. The mediation effect was only detected in segment 3, with a VAF value of  $0.792 \approx 79\%$  ( $t= 6.395$ ). Therefore, the value provides evidence for a (strong) partial mediation in segment 3 (significant at the 0.01 level). Appendix 3-7 presents details for significance test for groups' differences between the paths coefficients.

The effect of managers' expertise on firm performance is positive ( $0.685^{***}$ ) in segment 1 but negative in segment 2 ( $-0.573^{***}$ ) and weak in segment 3 ( $0.096^*$ ). The results reveal mixed effects of expertise on firm performance as argued earlier in the literature (see Boehlje et al., 2011 and Edelman et al., 2005). Also, the effect of market information on firm performance in segment 1 is strongly negative ( $-0.797^{***}$ ), whereas it is strongly positive in segment 2 ( $0.604^{***}$ ). In segment 3 there is a weak relationship between access to market information and firm performance ( $0.219^{***}$ ). Similar to the findings regarding managerial expertise, the results reveal mixed effects of market information on firm performance. Interestingly, there were no mixed effects regarding the effect of STM application on firm performance, i.e. the application of strategic management practices was strongly positive in segments 1, 2 and 3.

**Table 3-8: Summary of Path Relationships for each Segment**

Path Relationships	Path Coefficients		
	Segment 1 <i>human capital oriented firms</i>	Segment 2 <i>information dependent firms</i>	Segment 3 <i>strategic-oriented firms</i>
Level of managers' expertise → firm performance	Strong positive	Strong negative	Weak
Access to market information → firm performance	Strong negative	Strong positive	Weak
Strategic management practices → firm performance	Strong positive	Strong positive	Strong positive

Table 3-8 shows a summary of characteristics of each segment. The three segments can be depicted as follows:

- (a) Segment 1 consists of agribusiness firms that are characterized by a strong positive relationship between level of managers' expertise and firm performance and a negative relationship between access to market information and firm performance. Since the variable "level of managerial expertise (EXP)" is the major driver of firm performance among the exogenous variables, we name this segment as *human capital oriented firms*. Further details from descriptive statistics indicate that these firms have more years of experience in food processing than firms in segments 2 and 3. Also, the firms are able to make more use of business management tools such as balance sheet, profit and loss statement, cash flow, performance appraisal, risk analysis and SWOT analysis than the firms in segments 2 and 3 (Appendix 3-8).
- (b) Segment 2 consists of agribusiness firms that are characterized by, on the one hand, a strong positive relationship between access to market information and firm performance and, on the other hand, a negative relationship between level of managerial expertise and firm performance. Such firms function best with the collection of information from external sources, such as information on raw materials, sales channels, prices and customers' preferences. The negative link between managerial expertise and performance may imply that firms' revenues decrease as they spend much either on training costs or on hiring skilled labour, hence the firms put more efforts in collecting market information and work best using information databases. In this group, "access to market information" is the major resource that contributes to firm performance; hence we denote this segment as *information dependent firms*. Appendix 3-8 indicates further details on descriptive statistics.
- (c) Segment 3 consists of agribusiness firms that reveal a weak relationship between level of managers' expertise and firm performance as well as a weak relationship between access to market information and firm

performance. The application of STM practices has the strongest effect on firm performance and the contribution from managerial skills to firm performance is mediated by strategic management practices (unlike firms in segments 1 and 2). These firms rely primarily on long term planning with a clear purpose and direction they intend to go. The firms constantly engage in strategy planning, implementation and evaluation activities to ensure that their objectives are achieved (for example, increase in revenues, sales, etc.). Since the variance in firm performance is explained best through the application of STM, this segment is named as *strategic-oriented firms*. Appendix 3-8 gives further details on descriptive statistics.

In general, there were no significant differences found between segments in relation to socio-demographic characteristics such as age of the firm manager, gender of the firm owner, education level, etc. (Appendix 3-8).

### **3.5 Discussion and Conclusions**

Most firms competing within a similar environment are assumed to possess similar types of resources, hence they are challenged to compete with other firms in their pursuit of increasing performance. This study shows that engaging in strategic management practices enables firms to perform better and strengthen its competitive position and financial performance. The findings were established by including an intervening variable in a model by using the mediating analysis procedure suggested by Baron and Kenny (1986). This is because the relationship between access to resources and firm performance could be better justified via the consideration of STM as a mediating variable.

The resources such as level of managerial skills and access to market information are not necessarily directly associated with firm performance ( $H_2$  and  $H_5$  are not supported) but related to firm performance via the application of STM practices ( $H_1$  and  $H_4$  are supported). The results support and explain further the previous studies by Penrose (1959, 2009) that resources are not enough as inputs for firm operations but that it is rather the way that these resources are used. It is even more advantageous when the resources, for instance the capabilities of managers, are in line with a firm's strategy

(Edelman et al., 2005). Moreover, we suggest that the skills achieved from formal education are not essentially translated into practical use on business management tools. It is about going extra miles to create effective strategies. One of the incidences is that the agro-processing sector in the country under analysis, i.e. Tanzania, has been characterized by its inability to gain sustained revenues by constant selling of primary products and its inability to attract venture capitalists as a result of poor plans and poor record keeping (Dinh et al., 2013). A number of firms have been operating without proper business plans and workers literally operate blindly with poor knowledge on future business directions. This situation should alert policy makers to focus more on improving managerial style and capabilities particularly through promoting STM training.

Results also indicate that access to market information as such is not necessarily helpful for firm performance, because human beings have different abilities to process information. The results support Simon's (1957) work on humans' limited ability to process information but differ from other studies such as Lwoga et al. (2011) and Elly and Silayo (2013) which discussed importance of information for farmers while making implications for all actors in the agricultural sector and offered no explanation on what to do with the information. In our study, we involve food processors who are mostly closer to the final consumer and suggest that the information alone might not be significant for a firm's survival, but that information is better utilized if it is aligned with a firm's strategy. In some cases, firms can receive timely information about overall market conditions but the managers require an analytic mind to link the information to their firms' strategic actions. Without doing so, the access to market information alone might not be relevant to achieve firm performance and sustainable competitive advantage as suggested by Barney & Hesterly (2010). Transforming the agribusiness sector commercially is very complex; managers need to have access to information to cope with rapidly changing markets. The study results show that the information should be brought in line with strategic actions to enhance performance, and that is when the role of STM practices comes in.

Furthermore, our findings show the importance of identifying a fit between resources and strategic management practices in the context of small firms. Since small firms operate in a dynamic environment and are faced with severe constraints regarding economic and technical resources (Dinh et al., 2013), the firm managers should keep in

mind that strategic orientation matters. Incorporating strategic management tools is considered as a building block to managerial decisions and actions, which is also consistent with Porter's (1985) view on firm growth and strategy and Barney's (2001) work on finding a relationship between resources and strategies. Managers have to carefully utilize the strengths of their firms' resources and develop related strategies to gain high returns. Our recommendation takes into account recent structural reforms in promoting the agribusiness sector (IFAMR, 2014) and Tanzania's specific initiatives in enhancing specialized managerial training (see Tanzania Integrated Industrial Development Strategy 2025) in MOIT (2011) report. The reason is that small firms which engage in strategic management practices outperform those that do not. In this case, policy makers should take the engagement into consideration while developing an action plan that includes capacity building initiatives on strategic planning and management.

This study has both academic and practical implications. It adds to the academic literature that resources alone are not likely to contribute to firm performance if they are not aligned with firms strategies (Edelman et al., 2005; Edelman & Brush, 2001). The key resources of the firms are effective when balanced with the firms' plans indicated in either mission, vision statement, business plan or firms' objectives. With this regard, managers are encouraged to choose resources that work best for their particular firms. Generally, our work contributes to the development of competency-based competition (Prahalad & Hamel, 1990) which calls for further expansion of specialized knowledge and skills that have 'value' to the firms' objectives. From the practical perspective, the managers can understand in more detail why some firms achieve their objectives while others do not in the presence of the same type of resources and similar business environments. The study implies that promoting strategic behavior is beneficial to small firms as well (Beaver, 2007) and that investing in training programmes for human capital development will have an impact on increase in sales and revenues (Byerlee et al., 2013). It does not mean that the formal class trainings and complex procedures are necessary at all times. The essential element is to develop a strategic plan that is understood and communicated to every worker in the firm. Thus, the firms will be able to employ or develop a person with a desirable skill or collect appropriate information from the external market.

Care must be taken in order to avoid over-generalizing these results because further investigations from multigroup analysis indicate that our recommendations might not fit all types of firms. Small firms are different and their paths to achieve sustainable growth are diverse (Chan et al., 2006). There are firms which depend more on managers' expertise and less on market information to achieve firm performance (human capital oriented firms), whereas other firms rely more heavily on access to relevant information (i.e. information dependent firms). A third type of firms showed that a direct link between resources and performance is weak but the influence of the application of STM practices is strong (strategic-oriented firms). However, in all groups results revealed positive effects of the application of STM on financial performance. This implies that even though the firms are different in their strategies, they end up more similar in the way they achieve performance (equifinality; Gresov & Drazin, 1997; Sinha & Van de Ven, 2005).

Our findings are in line with Chan et al.'s (2006) suggestion that even though there are heterogeneous paths to sustainable growth, firms end up more similar to each other than they were when they started. Therefore, regardless of whether a firm is characterized as human-capital oriented, information-dependent or strategic oriented (see Table 3-8), they follow similarly successful paths to performance as they grow. Furthermore, the differences are regardless of age of the firm manager, gender of the firm owner and other firm characteristics (see Appendix 3-8) which shows that a path of success for one firm might not apply to the other.

This study faced some limitations in terms of scope because it focused mainly on a sample of agribusiness firms dealing with processed food products (cereals, fruits and vegetables) in three regions of Tanzania. An interesting extension would be to include other external resources to examine their influence on firm performance via strategic management practices. For the purpose of generalization, future studies may also want to include both large and small firms in Tanzania and beyond to broaden the scope of the study and improve its representativeness. Finally, the inclusion of resources other than level of managerial expertise and access to information in strategic actions as well as more complex combinations of resources might help to offer a deeper understanding on alternative pathways to improve firm performance.

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### **Appendix 3-1: Descriptive Statistics of Variable Items**

<b>Item</b>	<b>Statement/Question</b>	<b>Mean</b>	<b>Std. Dev</b>
Level of expertise of the manager (EXP) scale from 1=strongly disagree to 5 = strongly agree			
EXP_1	Level of expertise in Bookkeeping and Accounting	3.03	1.094
EXP_2	Level of expertise in Managing employees	3.45	1.053
EXP_3	Level of expertise in Marketing techniques	3.26	1.056
EXP_4	Level of expertise in Financial management	3.21	1.107
EXP_5	Level of expertise in Stock taking & Record keeping	3.36	1.081
EXP_6	Level of expertise in Food quality & Safety standards	3.56	1.056
EXP_7	Level of expertise in Customer care	3.72	1.006
EXP_8	Level of expertise in product presentation	3.37	1.074
EXP_9	Level of expertise in food processing	3.73	1.070
Information access to the firm (INFO)			
Scale: 1=Completely inaccessible 2=Inaccessible, 3= Average access, 4=Accessible and 5=Highly accessible			
INFO_1	Information on where to get raw materials	4.34	0.941
INFO_2	Information access on changes in product prices	4.04	1.049
INFO_3	Information access on where to sell	3.97	0.993
INFO_4	Information access concerning customers' whereabouts	3.89	1.014
INFO_5	Information access about when to sell	3.92	1.013
INFO_6	Information access on competitors	3.70	1.128
INFO_7	Information access on tax rates	3.38	1.286
INFO_8	Information access on trade associations	3.61	1.177
Strategic Management Practices (STM) practices (scale from 1 = Strongly disagree to 5 = Strongly agree)			
STM_A	Environmental scanning activities (3 items)	3.48	1.196
STM_B	Strategy planning activities (4 items)	3.28	1.195
STM_C	Strategic implementation activities (7 items)	3.19	1.195
STM_D	Evaluation and control activities (3 items)	3.31	1.254
Performance (PERF) 1=Decrease 2=A little decrease 3=Stay the same 4=A little increase 5=Increase			
REV_1a	Sales revenue this year in 2013	3.73	1.082
REV_1b	Sales revenue last year in 2012	3.60	0.971
REV_1c	Sales revenue in 2011	3.50	0.991
Cost_2a	Total expenses this year in 2013	3.95	0.928
Cost_2b	Total expenses last year in 2012	3.73	0.841
Cost_2c	Total expenses in 2011	3.64	0.873
Emp_3a	Number of employees this year in 2013	3.21	0.896
Emp_3b	Number of employees last year in 2012	3.08	0.662
Emp_3c	Number of employees in 2011	3.09	0.623

**Appendix 3-2: Cross Loading**

	EXP	INFO	PERF	STM
EXP_1	<b>0.749</b>	0.453	0.179	0.375
EXP_2	<b>0.833</b>	0.344	0.323	0.445
EXP_3	<b>0.846</b>	0.397	0.351	0.463
EXP_6	<b>0.787</b>	0.362	0.286	0.453
EXP_8	<b>0.786</b>	0.424	0.381	0.415
INFO_2	0.35	<b>0.655</b>	0.257	0.316
INFO_4	0.325	<b>0.800</b>	0.261	0.333
INFO_5	0.381	<b>0.794</b>	0.293	0.361
INFO_6	0.34	<b>0.665</b>	0.282	0.329
INFO_7	0.334	<b>0.588</b>	0.227	0.337
REV_1a	0.251	0.337	<b>0.770</b>	0.476
REV_1b	0.374	0.338	<b>0.875</b>	0.503
REV_1c	0.322	0.253	<b>0.826</b>	0.456
STM_A	0.510	0.397	0.544	<b>0.926</b>
STM_B	0.472	0.441	0.537	<b>0.930</b>
STM_C	0.515	0.474	0.544	<b>0.933</b>
STM_D	0.506	0.467	0.540	<b>0.936</b>

**Appendix 3-3: Collinearity Assessment**

<p><i>Linear regression Model 1:</i>                  Independent variables                  EXP (1.322) INFO (1.322)                  (Dependent variable STM)</p>	<p><i>Linear regression Model 2:</i>                  Independent variables                  EXP (1.567) INFO (1.442) STM (1.535)                  (Dependent variable PERF)</p>
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**Note:**

VIF values in Parentheses. VIF is a metric for multicollinearity. Multicollinearity among predictor variables represents an important concern in assessing path model, since it can inflate bootstrap standard errors and therefore trigger type II errors.

**Appendix 3-4: Effect Sizes ( $f^2$  and  $q^2$  Values)**

	STM			PERFORMANCE		
	Path Coefficient	$f^2$ effect size	$q^2$ effect size	Path Coefficient	$f^2$ effect size	$q^2$ effect size
EXP → STM	0.399	0.156L	0.1304S			
INFO → STM	0.281	0.082S	0.1217S			
EXP → PERF				0.064	0.003S	0.0018S
INFO → PERF				0.109	1.012S	0.0083S
STM → PERF				0.495	0.196M	0.1228S

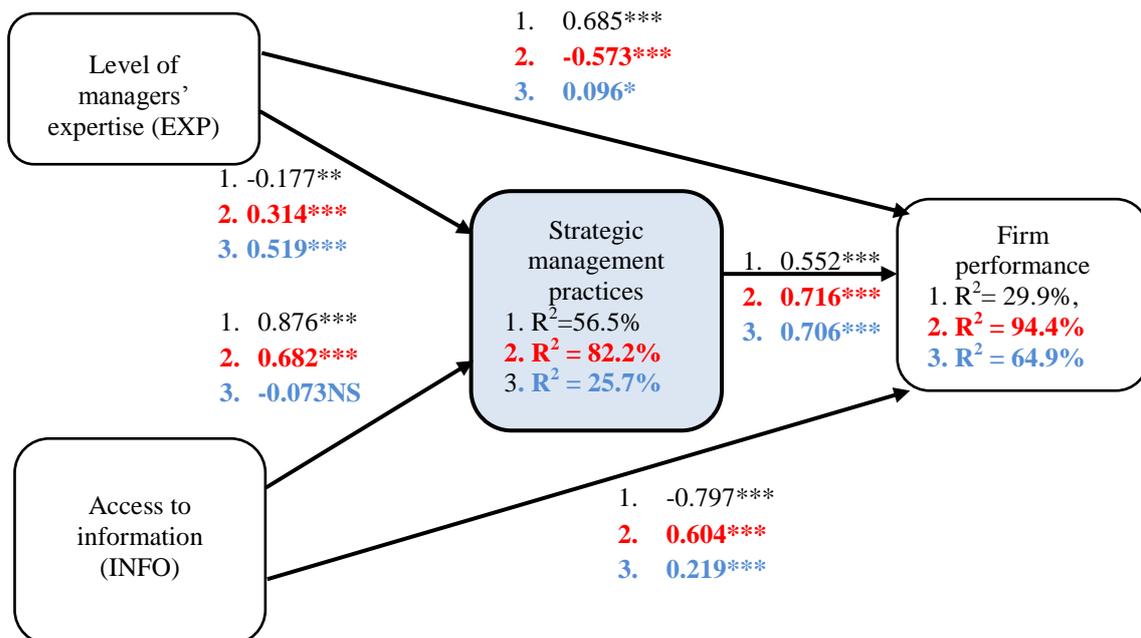
*Note:*  $f^2$  is a measure of the impact of a specific predictor construct on an endogenous construct.  $q^2$  As a relative measure of predictive relevance. The values of **0.02**, **0.15** and **0.35** indicate that an exogenous latent variable has a small (S), medium (M) and large (L) effect respectively.

**Appendix 3-5: Validity and Reliability Measures (Multigroup analysis)**

	Measure	Aggregate			
		(Full Sample)	n = 1	n = 2	n=3
Convergent validity measure	AVE(EXP)	0.642	0.694	0.670	0.614
	AVE (INFO)	0.497	0.517	0.737	0.507
	AVE (STM)	0.867	0.664	0.879	0.902
	AVE (PERF)	0.680	0.808	0.565	0.610
Internal consistency reliability measure	CR (EXP)	0.899	0.919	0.910	0.888
	CR (INFO)	0.830	0.841	0.933	0.835
	CR (STM)	0.963	0.887	0.967	0.974
	CR (PERF)	0.864	0.926	0.794	0.823
Discriminant validity measure	ε EXP	0.801	0.833	0.819	0.784
	ε INFO	0.705	0.719	0.858	0.712
	ε STM	0.825	0.815	0.938	0.950
	ε PERF	0.925	0.899	0.752	0.781
	N	229			
	n		50	50	129

CR, Composite reliability ε, measure for criterion by Fornell and Larcker (Fornell & Larcker, 1981),  
n size of segment, N size of full sample

**Appendix 3-6: PLS Model Multigroup Analysis**



**Appendix 3-7: Three-Segments PLS Analysis (Differences between Path Relationships)**

	Segment 1: N=50	Segment 2: N=50	Segment 3 N=129	Segment 1 Vs Segment 2	Segment 1 Vs Segment 3	Segment 2 Vs Segment 3
	path coefficient (std errors)			path coefficients (t values)		
	$p^{(1)}$	$p^{(2)}$	$p^{(3)}$	$ p^{(1)}-p^{(2)} $	$ p^{(1)}-p^{(3)} $	$ p^{(2)}-p^{(3)} $
EXP→PERF	0.685*** (0.090)	-0.573*** (0.077)	0.096* (0.074)	1.258*** (10.729)	0.589*** (5.094)	0.669*** (6.309)
EXP→STM	-0.177** (0.082)	0.314*** (0.082)	0.519*** (0.081)	0.49*** (4.277)	0.696*** (6.081)	0.205*** (3.364)
INFO→PERF	-0.797*** (0.152)	0.604*** (0.103)	0.219*** (0.089)	1.401*** (7.708)	1.016*** (5.433)	0.385*** (2.849)
INFO→STM	0.876*** (0.072)	0.682*** (0.077)	-0.073 (0.092)	0.194* (1.859)	0.949 (8.206)	0.755*** (6.334)
STM→PERF	0.552*** (0.140)	0.716*** (0.146)	0.706*** (0.059)	0.614 (0.819)	0.154 (1.023)	0.010 (0.064)

Note:  $p^{(1)}$ ,  $p^{(2)}$  and  $p^{(3)}$  are path coefficients for segment 1, 2 and 3 respectively  
Significance at \*\*\*  $p < 0.01$ ; \*\* $p < 0.05$  and \* $p < 0.1$

**Appendix 3-8: Characteristics of the Three Segments**

Variable	Segment 1	Segment 2	Segment 3	Full sample	F score	sig. difference
	Mean (std. dev.)					
Gender of firm manager	0.42	0.34	0.40	0.39	0.361	
Male	(0.499)	(0.479)	(0.491)	(0.489)		
Female	0.58	0.66	0.60	0.61	0.361	
	(0.499)	(0.479)	(0.491)	(0.489)		
Age of the manager (years)	41.91	44.33	42.4	42.72	0.74	
	(10.84)	(9.942)	(10.943)	(10.97)		
Age of the firm (yrs.)	9.75 <sup>1</sup>	6.96	6.89 <sup>3</sup>	7.54	6.478	***
	(6.44)	(4.02)	(4.53)	(5.04)		
Years of working experience in the firm (yrs.)	9.07 <sup>1</sup>	6.54	6.12 <sup>3</sup>	6.86	6.87	***
	(6.40)	(3.79)	(4.39)	(4.91)		
Education	0.44	0.42	0.40	0.41	0.159	
Secondary schooling	(0.501)	(0.499)	(0.491)	(0.493)		
College certificate	0.20	0.16	0.16	0.17	0.268	
	(0.404)	(0.370)	(0.363)	(0.373)		
University	0.08	0.14	0.11	0.11	0.459	
	(0.274)	(0.351)	(0.312)	(0.313)		
Asset management (are you familiar with 'Balance sheet'?)	0.74	0.84 <sup>2</sup>	0.61 <sup>3</sup>	0.69	4.877	***
	(0.443)	(0.37)	(0.489)	(0.464)		
Uses at least 5 other STM tools <sup>d</sup>	0.80 <sup>1</sup>	0.64	0.63 <sup>3</sup>	0.66	2.543	*
	(0.4)	(0.48)	(0.48)	(0.47)		

Note: Superscript numbers 1, 2 and 3 indicate significant different groups based on Scheffe's test where the latter represents a set of group differences. d; other tools listed are profit and loss statement, cash flow, sales trend, cost benefit ratio analysis, performance appraisal, risk analysis, net present values, brainstorming, and SWOT analysis.

## Chapter Four

### 4 HomeVeg Tanzania Managing a New Strategy amidst GLIMPSE Challenges (Case Study)

Theresia Dominic, Ludwig Theuvsen, Mussa Mvungi and Ray Ufunguo

#### Abstract

HomeVeg Tanzania Ltd. is a fresh fruits and vegetables export company in Arusha, Tanzania. Since its inception, five years ago, they have recruited 55 employees, working with 1,600 smallholder farmers. They successfully produce high quality products—up to seven tons per week that meet GLOBALG.A.P. and British Retail Consortium standards. Although sales are rising, production rates are affected by an increasing amount of reject due to product handling and strict export standards. Its next strategy is to add outlets in the domestic market. This case discusses its journey towards accomplishing the opportunity, despite obstacles under the acronym GLIMPSE.

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## **4.1 Introduction**

HomeVeg exports vegetables from Tanzania to Europe. Since its inception in 2009, it has become the leading vegetable exporter in the country with a capacity of 7 tons per week. The company processes high value vegetables by working directly with groups of smallholder farmers with average plot size of 0.2 hectares. As the company grows, success is attributed to its close link with farmers. It has recruited 1,600 farmers who are fully trained to grow products that meet international export standards. Its core activities include capacity building, marketing and finance with a team of 55 employees (15 permanent and 40 temporary). As the success in delivering high value products increases, a challenge in dealing with unsold produce (rejects) increases as well. Several alternative solutions are given, however the optimum decision is yet to be achieved.

## **4.2 Company Background**

Located in Arusha, HomeVeg is a private limited company co-founded by Mussa Mvungi and Machel Tarimo, two young Tanzanian graduates, with sufficient experience in horticulture and international trade. In five years they were able to grow the company by exporting high quality fine beans, peas, chilies and baby corn. From the beginning, they worked closely with a the Center for Sustainable Development Initiative (CSDI); to secure a grant to cover the costs of renting a pack house, cold truck, collection truck and training programs on vegetable processing and international trade. With a mission of promoting the production and marketing of fresh horticultural products, the company was able to supply the UK, Belgium, Germany and the Netherlands—and is searching for more buyers.

HomeVeg quickly gained momentum in 2011 when the number of farmers increased from 1,000 (in year 2009) to 1,200 (2011) and currently 1,600 (2013). The farmers are located in northern and eastern part of the country including collection centers in Arumeru, Simanjiro, Moshi and Lushoto districts in Arusha, Manyara, Kilimanjaro and Tanga regions respectively. HomeVeg's has a formal contract with the farmers and regularly supervises activities such as fertilization, spraying, crop husbandry, harvesting and pre-grading. The farmers are divided into eight groups who receive training in six major areas: safe use of pesticides; good agriculture practice (G.A.P.);

farmers' accountability; cluster management training; and association management training.

Products flow from farms to international wholesale buyers, where HomeVeg collects produce at the farm gate and transports it to its packing house in Arusha, where the product is graded and packaged. The load is then processed for transport and sent to the buyers; Special fruit (Belgium), Fresh to Go (UK), Bud Holland and Nature's Pride. Agents involved in processing and handling the freight include TahaFresh Handling Ltd. (Tanzania) and Kuehne and Nagel Company (International). In the process of capturing the market in Europe, the company strategically facilitated the GLOBALG.A.P and the British Retail Consortium (BRC) certification for the farmers. In 2011, three out of eight groups were certified and the number has increased to seven in 2013.

#### ***4.2.1 Current Management Structure***

Employees are divided into three teams and departments: capacity building and production; marketing; and finance/administration. The top management is comprised of the founding members. Mr. Mvungi is the Managing and Marketing Director. Mr. Tarimo is the Director of Finance and Mr. Mziray is the Director of Production. Middle management level is comprised of unit managers, and lower level employees include secretaries, clerks, storekeepers and production supervisors. The company has a total of 15 permanent and 40 temporary employees.

Mvungi is responsible for establishing the export forecast based on market conditions. He directs the collection of produce, grading, packaging, exporting and market information search. Based upon the current sales capacity of 7 tons per week, he has to accomplish an objective of 20 tons per week of produce by the year 2015 and to increase annual profit from \$15,257 to \$127,593 USD by year 2016. Tarimo directs the financing, administrative and people management, while enforcing HomeVeg core values: Quality, Safety, Reliability and Transparency. Mziray is responsible for developing small scale farmers by providing regular training, contracting and supervision. Major objective is to recruit at least 3,500 farmers and up to 200 hectares of farms by year 2016.

### **4.2.2 Key Success Factors**

Having regular contact with farmers, close control of the supply chain, expertise in quality management system, provision of regular training to farmers, are the HomeVeg key success factors. Also, relationship based on trust was the key between the company and key actors within the chain. For example, HomeVeg has honored past agreement with farmers and process their payments on timely basis because it is at its best interest to build trustworthy and long relationship with the farmers. Hence in future transactions, the farmers have put trust that they will not be exploited.

The demand for fresh produce has increased because over the last decade Europe has recorded a trade deficit in fresh and processed fruits and vegetables, totaling €9.8 billion in 2011 and imports have picked up quite considerably as well (MAP, 2012). In this case there has been a growth in land committed by farmers from 0.3 to 0.94 ha. of harvest per week after introducing a planting program in 2011. The program runs successfully because HomeVeg has invested input resources to the business arrangement and on the other hand the farmers are connected to export markets, get access to technical services and free training sessions.

### **4.3 Strategic Issues for HomeVeg**

Fresh vegetable sector in Tanzania continues to grow with competitors like Serengeti fresh, Tanhort, Arusha bloom, etc. Therefore the challenge for HomeVeg is how to maintain their position as the leading exporter. As they work on seeking more buyers in Europe, they have announced plans to increase number of farmers in order to satisfy the market demand, install a better quality management system in the pack house for speed efficiency in processing, and negotiate with Government and development agencies in installing cold rooms near farm gates. Furthermore, HomeVeg has not only built its own new pack house but also found a strategic location for transport that is spacious.

The management sees a potential on vegetable and fruit cultivation in Tanzania therefore they focus on providing regular training to comply with international standards. As a result, amount of farm produce collection has successfully increased in terms of weight and variety. In addition to that sales volume has escalated from 115.4 tons in year 2010 to 221.2 tons in year 2012 but the sales could have been higher if it wasn't for the

high amount of rejects. The rejects are unsold produce, caused by natural differences in size, shape and color; and breakage during washing and transportation; but fit for consumption.

Alternative strategies are arranged to design a marketing entry strategy for a domestic market. However, if HomeVeg establishes a formal domestic market, some problems will arise such as; supplying substandard quality of produce which might jeopardize the HomeVeg's image, inability to forecast amount of unsold products and rejects, hence making impossible to enforce a contractual agreement with local buyers.

Furthermore, there is a pricing issue whereby, their price might be higher than their competitors in domestic markets. Until late November 2013, the directors are struggling with the pricing, promotion and product decisions for the domestic market. However, as they move forward in creating a strategic market entry to the domestic market, the firm encounters additional challenges in following areas: *Government, losses and wastage, infrastructure, markets, politics and policies, science and innovation; and environment.*

#### *Government*

Costs of landing, handling and aviation fuel are higher at Kilimanjaro International airport than other airports in East Africa, hence indirectly affects HomeVeg's trading charges. Considering that, Tanzania ranks 139 out of 189 countries in the criteria of 'ability to trade across borders' (World Bank, 2013), the Government should assess the source of this problem to resolve high charges and unnecessary port delays. A better solution might reduce freight operational charges and increase HomeVeg revenue by 9.5%.

#### *Losses and Wastage*

A post-harvest loss from the pack house is between 20 to 40 percent. Several efforts have been tried to manage losses along the food chain, but it all comes down to more funding requirements. There's an opportunity to install cold-room facility near farm areas where vegetables and other variety of produces can be stored soon after harvesting.

#### *Infrastructure*

It is unfortunate that roads, power supply, and air/sea ports are in poor condition due to the major economy transformation and expansion process in the country. HomeVeg has to find alternatives. For example, installing standby generators during

periods of power outages and regular financing of auto spares for truck maintenance due to poor road conditions. After British airways pulled its services in 2013, HomeVeg is seeking direct flight services to the UK where their major buyers are located.

### *Markets*

Changes in population structure, customer preferences, and income levels are few of the factors that increase the demand of vegetables all over the world; however the opportunity to grasp more market share, outweighs HomeVeg ability to supply. A program is already set to recruit more farmers, so the challenging part is making decisions on pricing, promotion, product and designing a marketing strategy for domestic market (as discussed earlier).

### *Politics and Policies*

HomeVeg is working on negotiating export subsidies such as tax relief for exporters and getting a rebate on imported manufacturing machines. The outcome will increase competitiveness with other exporters globally.

### *Science and Innovation*

Generally, teamwork between scientists, researchers, farmers and food processors is limited where one part accuses the other of not delivering results that are applicable to the Tanzanian environment. HomeVeg is confronted with lack of up-to-date information on seedling technology, fertilizer, better farming practices and agricultural marketing database. The latter is much needed for developing a plan for domestic market.

### *Environment*

There is a crisis of water pollution while trying to comply with the standards. In this case they have included sensitization program to educate the public on safe discharge of waste. However as it becomes too costly to the company, public-private partnership intervention is encouraged.

## **4.4 Looking Ahead**

Considering the challenges, it seems that recruiting more farmers and increasing export capacity alone will not solve supply gaps and post – harvest losses. The next step is to engage in public-private partnership programs, communicate policy shortfalls with

real evidences and get the government to commit to support horticulture industry. The business by itself has a great opportunity to grow internationally as well as in the domestic markets due to increasing demand of fresh vegetables. Since the company values quality (as a key success factor), the biggest challenge is how to manage unsold product (rejects). The idea of disposing the remaining produce into the domestic market should not be the ultimate solution. Much has to be done in the area of quality control if the company wants to expand the market.

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## Chapter Five

### 5 Summary, Conclusions and Implications

#### 5.1 Summary and Conclusions

This study offers explanations on the effects of firm attributes, internal resources and external environmental factors on the application of strategic management practices. The effects are further explained through statistical hypothesis testing using a structural model analysis. Based on the results from the model analysis several recommendations are made in order to encourage managers to focus on critical factors and take effective managerial actions. Furthermore, the role of strategic management practices in connecting firm resources to firm performance has been empirically justified through the analytical procedure of mediation analysis. Also, investigation based on multigroup analysis shows that the firms are different regarding utilization of resources and their strategies.

##### 5.1.1 Paper 1 (Chapter Two)

From the paper, we can conclude that the application of strategic management practices indeed leads to better performance even in small agribusiness firms. The findings provide justification for the need of strategic management practices in competitive environments for survival of small agribusiness firms. Also, the argument that there is a need for strategic awareness not only in medium-sized and large enterprises but also in small ones (Beaver, 2007) is supported. Furthermore, our empirical findings are in line with earlier studies that have indicated the positive effects of systematic strategic management in small enterprises (R. Andrews et al., 2006; Bracker & Pearson, 1986; Georgellis et al., 2000).

With reference to our research model, several factors from the internal and external environment of firm organizations are hypothesized to link positively with the ability to apply STM practices. These include firm attributes (i.e. firm age, size and formalization status) firms' internal resources (i.e. level of investment; access to market information and managerial expertise), and pressure from the external environment (i.e. level of

production input availability, access to public infrastructure and access to external sources of funds). From the results of our model analysis, we conclude that all firm characteristics have a significant effect on STM practices whereby firm's *formalization status* has a greater impact followed by firm *age* and *size*. We imply that firms which are legally registered, are abiding to rules and procedures of business operations, are older and have high capital investments are more likely to have the ability to apply STM practices. The trend towards increasing formalization and implementation of management systems has been recently demonstrated for small growing enterprises as well (Davila, 2005). However, in the case of improving the formalization status of the firms, we should note that governments in developing countries often tolerate the operations of informal businesses due to their important contribution to net employment growth and poverty reductions (Nelson & DeBruijn, 2005).

The study also indicates that that 'level of managerial expertise' mostly contributes to the application of STM practices. Firm managers and employees with relevant skills are in a good position to strategize well and position their products more easily in the market. The existing literature also indicates the same relationship, but with no clear indication of which skills are referred to (Ambrosini & Bowman, 2009; Mugeru, 2012). From our results we conclude that education on food quality and safety standards, food processing techniques and customer care are relevant for achieving firm strategy. In contrast, firms with inadequate skills cannot produce better strategic plans. The findings support the widely shared resource-based view that the intangible resources such as human resources provide bigger chances for achieving competitive advantages<sup>7</sup> because these resources are often difficult to imitate or replace (Prahalad & Hamel, 1990). Also, better access to information influences application of STM practices because firms with better information on where to purchase agricultural produce, product prices, sales channels, current customer needs, competitors' actions and other relevant topics have better opportunities to successfully engage in strategic actions than those with poor access to this information. Those with poor access to information are uninformed about what they need to solve their problems and unable to clearly understand market trends; as a result, they lose focus in goal accomplishment. Also, firms which have invested more

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<sup>7</sup> A firm has a competitive advantage when it implements a strategy competitor are unable to duplicate or find too costly to try to imitate. If utilized properly, skilled employees can be one way for an organization to create a sustainable competitive advantage (Hitt et al., 2009).

on assets and working equipment are better able to carry out their strategies than those with limited investment.

Similar arguments have been made in previous studies, which link the poor performance of many manufacturing firms to poor investment capacity (Dinh et al., 2013). Policy recommendations should aim to promote private investment and to resolve one of many small firm's major challenges—how to attract interested venture capitalists to allow investments into a modern production plants, machinery and food processing equipment.

Based on the factors from the external environment of the firm we conclude that not all external factors can impose pressure on firm managers to engage in strategic actions. For example access to external sources of funds helps managers to accomplish their strategies and at the same time it is the biggest challenge for those who do not have enough capital and are unable to secure funds from commercial banks. We conclude that small firm managers' improvement of access to loans can tremendously change the efficiency of firm operations. Competitive advantage is more prevalent in firms which have more alternatives for financing current and future activities. Firms with a lack of access to loans and complicated bank loan applications claimed that STM practices are expensive, irrelevant and time-consuming. Therefore, financial products should be improved to ensure that its access is responsive to the needs of small agribusiness firms. Other external factors such as better input availability and access to public infrastructure services do not necessarily impose pressure on firm managers to engage in strategic actions. Even though the relevant literature shows a positive link between access to input and STM practices, there was no statistical evidence in this study to support this conclusion. The reason is that the firms will either engage or fail to engage in strategic actions disregarding the status of road conditions, communication services, availability of harvest from farmers or availability of packaging materials from traders. Also, firms especially those selling in traditional markets are not too exposed to conditions in the external environment compared to large firms that deal with complex transport logistics and exporting.

### **5.1.2 Paper 2 (Chapter Three)**

From the second paper, we can conclude that strategic management has a major role in facilitating effective use of resources to achieve firm performance. Firms'

resources alone do not directly contribute to firm performance unless there is an environmental analysis activity conducted or a strategic plan created before using the resources. Most firms competing within a similar environment are assumed to possess similar types of resources; hence they are challenged to compete with each other in their pursuit of increasing performance.

Findings show that not all resources enhance firm performance. In paper 1, for example, managerial skills and access to market information were the critical resources in enhancing strategic actions. But in further analysis for this paper, the results indicate that managerial skills and access to market information do not significantly increase level of firm performance. The contribution is justified if the resources are paired up in firms' mission and vision statements or firms' commitment to implementation of strategies. That is why the relationship between resources and firm performance was analyzed in more detail through consideration of STM as a mediator. The results support and further explain the previous studies by Penrose (1959, 2009) which show that resources are not enough inputs for firm operations but that it is rather the way that these resources are used. It is even more advantageous when the resources are in line with firm's strategy (Edelman et al., 2005).

Small firms in developing countries such as Tanzania have often been operating without proper business plans. Workers thus operate blindly with poor knowledge on future business directions. The situation and the study analysis should alert policy makers to focus more on improving managerial style and capabilities particularly through promoting strategic management training. In our study we involved food processors which are mostly searching for market information to enhance their firm's survival, but since human beings have different abilities to process information (Simon, 1957), the access to market information alone might not be sufficient to achieve firm performance and sustainable competitive advantage as suggested by Barney & Hesterly (2010). Therefore, this study analyzes the *resources-performance* link through application of STM practices as potential mediators.

### **5.1.3 Case study (Chapter Four)**

The case briefly indicates a struggle from one of the agribusiness firms in Tanzania towards accomplishing a marketing strategy. It discusses several challenges surrounding

business firms in the process of expanding the market for their food products. The typical challenges are based on;

- (a) Stringent business regulations and operational charges imposed by the government.
- (b) Poor availability of facilities to control losses and wastage (e.g. cold truck and cold room facilities) as well as inadequate preservation of fresh produces that are bought from farmers.
- (c) Poor public infrastructure services (availability of electricity, road conditions, freight services, etc.).
- (d) Dynamic market conditions, i.e. ever-changing customer preferences and inability to penetrate markets.
- (e) Poor progress in implementation of policy recommendations for agribusiness development.
- (f) Inadequate initiatives to share research results and transform them into actions. Also, poor collaboration between scientist, researchers and actors in food supply chains is a major challenge.
- (g) Poor public–private partnership in preventing environmental pollution.

Considering the challenges, firms experience obstacles in implementing their strategies. More efforts should be made by firm managers to understand the environment through performing regular environmental analysis. Thereafter, there is the required basis for the design of alternative ways to minimize any risks caused by environmental threats. Also, more efforts should be put by the government into attempts to improve its obligations in managing fair competition in markets, providing better access to public services and market infrastructure, controlling food quality and safety, etc.

## **5.2 Implications**

This study has both academic and practical implications. It adds to the literature that resources alone are not likely to contribute to firm performance if they are not aligned with firms strategy (Edelman et al., 2005; Edelman & Brush, 2001). The firms should use their resources in line with strategies to cope with uncertain and dynamic

environments. The key resources of firms are effective when balanced with the firms' plans indicated in mission, vision statement, business plan or firms' objectives. With this regard, managers are encouraged to choose resources that work best for their firms. Generally, our work contributes to the development of competency based competition (Prahalad & Hamel, 1990) which calls for further expansion of specialized knowledge and skills that have 'value' to the firms' objectives. From the practical perspective, the managers can understand that engaging in strategic actions is beneficial to small firms as well (Beaver, 2007) and that it does not mean that the formal and complex procedure on papers are necessary at all times. The essential element is to develop a strategic plan that is known and communicated to every worker in the firm.

Furthermore, scholars should pursue the development of a portfolio of skills whereby technical skills on food processing should be balanced with the soft(er) marketing and management skills. After all, the products that are re-created from the production facilities are supposed to be sold in the markets. If the products are not successfully sold, then firms will need to reconsider their strategies and concentrate on developing unique skills that are needed to exploit food markets. We do not imply that there is a best skill or capability that matches every firm but rather suggest that a review of environmental analysis and planning can give best choice of essential skills. In this case, policy makers should take the engagement of strategic management skills into considerations while developing a plan of action (e.g., training programmes) that includes capacity building initiatives on organization management.

Care must be taken in order to avoid over-generalizing these results because further investigation from multigroup analysis indicate that our recommendations might not fit all types of agribusiness firms. Small firms are different and their paths to achieve sustainable growth are diverse (Chan et al., 2006). Results from group analysis indicate that we can distinguish between human-capital oriented firms, information dependent firms and strategic-oriented firms. The implication is that even though the firms are different in their strategies on using the available resources, they end up more similar in the way they achieve performance. Our findings are in line with Chan et al.'s (2006) suggestion that even though there are heterogeneous paths to sustainable growth, firms end up more similar to each other than they were when they started. Therefore, efforts should be made by firms to find a fit between their resources and strategic actions in order to enhance firm performance.

In recent years, the development of the agribusiness sector has received much attention from governments. The Tanzanian government has targeted the country's manufacturing sector to increase its contribution to GDP from 8 to 15 percent between 2009 and 2015 (MoFEA 2010). Therefore, knowledge and skills on generating agricultural products of higher added value in a well-managed business firm should be promoted in this highly competitive environment. The research findings provide one of several routes to achieve performance through demonstrating the high importance of strategic management for the success of the agribusiness firms. and research findings translated into productive actions.

### **5.3 Limitations and Further Research**

Overall, this research is an early inquiry into the strategic management process for firms of this nature in an emerging African economy. We based our research on the general fact that proper strategic plans and skills are needed to exploit food markets (Byerlee et al., 2013; Dietz et al., 2000; Dinh et al., 2013). This study faced some limitations in terms of scope because it focused mainly on a sample of agribusiness firms dealing with a limited range of processed food products (i.e. cereals, fruits and vegetables) in three out of 30 regions of Tanzania. For the purpose of generalization, future studies may want to include other regions and countries and both large and small firms in various food processing sub-sectors and beyond to broaden the scope of the study and improve its representativeness. Finally, the inclusion of resources other than level of managerial expertise and access to information in strategic actions as well as more complex combinations of resources might help to offer a deeper understanding on alternative pathways to improve firm performance. More progress surrounding the application of strategic management practices needs to be understood with the help of more in-depth case studies. Therefore, deeper qualitative explorations and analyses of longitudinal data are required in future research.

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Respondent # \_\_\_\_\_

Interviewer ID \_\_\_\_\_

### Part I: Respondent's Profile

**1.01 [ ] Gender**

1. Male
2. Female

**1.02 [ ] Education**

1. Never attended school
2. Primary schooling
3. Secondary schooling
4. College certificate
5. Degree
6. Other

**1.03 [ ] Position in the firm**

1. Owner
2. Managing Director
3. Both 1&2
4. Business Partner
5. Employee
6. Other

**1.04 Total years of education \_\_\_\_\_**

**1.05 What is your age?**

\_\_\_\_\_ years

**1.06 Number of years of working in the firm**

\_\_\_\_\_ years \_\_\_\_\_ months

**1.07 What was your previous work status before working in this firm? [ ]**

1. Employed (Public organization)
2. Employed (Private organization)
3. Student
4. Housewife (for female)
5. Unemployed

**1.08 How many languages are you familiar with? Local \_\_\_\_\_ Foreign \_\_\_\_\_**  
Please choose;

1. Swahili [ ] 2. English [ ] 3. Other \_\_\_\_\_ [ ] 4. Other \_\_\_\_\_ [ ]



1.09 Major foreign language competence		Not very well	Not well	Intermediary	Well	Very well
1.	I can write in English.	<input type="checkbox"/>				
2.	I can understand English.	<input type="checkbox"/>				
3.	I can read English.	<input type="checkbox"/>				
4.	I can speak English.	<input type="checkbox"/>				

1.10 On a scale of 1 to 5, please rate your level of expertise in the following subjects (consider all employees in the firm)	Very poor	Need some improvement	Average	Very good	Excellent	Not applicable
	1	2	3	4	5	
1.	Bookkeeping and accounting	<input type="checkbox"/>				
2.	Managing employees	<input type="checkbox"/>				
3.	Marketing techniques	<input type="checkbox"/>				
4.	Financial management	<input type="checkbox"/>				
5.	Stock taking & Record keeping	<input type="checkbox"/>				
6.	Food quality & Safety standards	<input type="checkbox"/>				
7.	Customer care	<input type="checkbox"/>				
8.	Product presentation	<input type="checkbox"/>				
9.	Food Processing	<input type="checkbox"/>				
10.	Other _____	<input type="checkbox"/>				
11.	Other _____	<input type="checkbox"/>				

**1.11 (if the respondent is not the owner)**  
**Does the owner of the business participate in daily firm operations?** Yes=1 No=0 [ ]

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**Part II: Firm's Profile**

**2.1 What is the location of the firm?** [ ]

1. Major city
2. Secondary City
3. Rural Area

**2.2 Age of the business**  
\_\_\_\_\_ years \_\_\_\_\_ months

**2.4 [ ] Is it a family business?**

1. Yes
2. No

**2.3 [ ] Status of the business**

1. Private Limited
2. Partnership
3. Public limited
4. Others

**2.5 Additional number of owners** \_\_\_\_\_

**Number of workers**

- 2.06 Full time employees \_\_\_\_\_  
2.07 Part time employees \_\_\_\_\_

**2.08 Type of Business Investors [ ]**

1. Foreign involvement
0. No foreign involvement

**2.09 Exporting activity [ ]**

1. Export
0. Do not export

**2.10 Capital Investment** \_\_\_\_\_ TZS



2.11 Statements	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. You have a picture of an organization structure					
b. You have indicated clearly the division of work for employees					
c. You have written a clear business plan					
d. You are able to abide to all legal business regulations					

2.12 Name of product	Product nature (1 = Cereals 2 = Fruits 3 = Vegetables 4 =others )	1= Perishable 2= Non- perishable	Primary raw material 1= Domestic farmers 2= Imported	Remarks
Product 1	_____	[ ]	[ ]	
Product 2	_____	[ ]	[ ]	
Product 3	_____	[ ]	[ ]	
Product 4	_____	[ ]	[ ]	
Product 5	_____	[ ]	[ ]	
Product 6	_____	[ ]	[ ]	

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**Part III: Firm Resources and Internal Environment**

3.01 How high have you invested in the following items	Very Low (up to 0%)	Low (25%)	Average (50%)	High (75%)	Very high (up to 100%)	Not applicable	I don't know
Firm building(s)	<input type="checkbox"/>						
Motor Vehicle(s)	<input type="checkbox"/>						
Employees' training	<input type="checkbox"/>						
Production technology	<input type="checkbox"/>						
Office tools	<input type="checkbox"/>						
Marketing activities	<input type="checkbox"/>						
Others _____	<input type="checkbox"/>						
Others _____	<input type="checkbox"/>						

3.02 Please indicate major raw materials (inputs) for your production facility. Then rate how accessible they are to your firm	Not accessible	Highly accessible	Not applicable	I don't know
1. Agricultural inputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Non-Agricultural inputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.03 Please rate overall level of technology of the production facility. (Use a rating scale, where 1= Not technical, traditional technology and 5 = Very technical, advanced technology).	Not technical, use of outdated technology					Very advanced, use of modern technology				
	1	2	3	4	5	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Note:**

When the facility's technology can be replaced with something newer, better and faster. Then the existing becomes outdated, depending on the version.

Modern facility is energy efficient, portable, faster processing ability and long-lasting

3.04 Please rate the extent of ICT use in your food manufacturing operations	Never	Once a week	2 times a week	3 times a week	Daily	Not applicable
1. Telephones	<input type="checkbox"/>					
2. Desktop computer	<input type="checkbox"/>					
3. Laptop personal computer	<input type="checkbox"/>					
4. Photocopier	<input type="checkbox"/>					
5. The internet (Email)	<input type="checkbox"/>					
6. Scanner	<input type="checkbox"/>					
7. Telefax	<input type="checkbox"/>					
8. Others _____	<input type="checkbox"/>					
9. Others _____	<input type="checkbox"/>					

3.05 Which among the following information is accessible to you?	Completely inaccessible	Highly accessible	Not applicable	I don't know
Where to get raw materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Changes in product prices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Where to sell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Customers' whereabouts	<input type="checkbox"/>						
When to sell	<input type="checkbox"/>						
Competitors' information	<input type="checkbox"/>						
Tax rates	<input type="checkbox"/>						
Trade associations	<input type="checkbox"/>						
Others _____	<input type="checkbox"/>						

3.06 How do you rate the expertise level of your firm the following areas?						Not applicable	I don't know
	Not trained at all				Highly trained		
Bookkeeping	<input type="checkbox"/>						
People management	<input type="checkbox"/>						
Marketing techniques	<input type="checkbox"/>						
Financial management	<input type="checkbox"/>						
Record keeping	<input type="checkbox"/>						
Accounting	<input type="checkbox"/>						
Customer care	<input type="checkbox"/>						
Product presentation	<input type="checkbox"/>						
Food Processing	<input type="checkbox"/>						
Other _____	<input type="checkbox"/>						
Other _____	<input type="checkbox"/>						

**3.07 What are the two most important sources of funds to finance your long term investments?**

- Self-financing = 1 [ ]
- Short term loan (less than 1 year) = 2 [ ]
- Long term loan (more than 1 year) = 3 [ ]
- Funds from a shareholder = 4 [ ]
- Other, specify \_\_\_\_\_ = 5 [ ]

3.08 In the process of applying for a loan, to finance your firm activities and other investments, how do you rate the following sources?						I don't know	N/A
	Very poor	Poor	Fair	Good	Very good		
Individual money lender	<input type="checkbox"/>						
Rural private bank	<input type="checkbox"/>						
Urban private bank	<input type="checkbox"/>						
Cooperative bank	<input type="checkbox"/>						
Community funds	<input type="checkbox"/>						
Government bank	<input type="checkbox"/>						
Private organization	<input type="checkbox"/>						
Other _____	<input type="checkbox"/>						
Other _____	<input type="checkbox"/>						

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**Part IV: External Environment**

4.01 On a scale of 1 to 5, please rate availability of inputs that your production facility will need for future production	Not available		Highly available	Not applicable	I don't know
1. Agricultural inputs	<input type="checkbox"/>				
2. Non-Agricultural inputs	<input type="checkbox"/>				
3. Others	<input type="checkbox"/>				

4.02 Which among the following is an important selling point for your firm?	Not at all important	Not important	Neutral	Important	Very important	I don't know	N/A
1. Neighborhood area	<input type="checkbox"/>						
2. Traditional food market	<input type="checkbox"/>						
3. Grocery stores	<input type="checkbox"/>						
4. Supermarket (all types)	<input type="checkbox"/>						
5. Wholesale markets	<input type="checkbox"/>						
6. Restaurants, schools and workplaces	<input type="checkbox"/>						
7. International markets	<input type="checkbox"/>						
8. Others _____	<input type="checkbox"/>						

4.03 How do you rate the level of competition from;	Very weak	Weak	Average	Strong	Very strong	I don't know	Not applicable
Domestic firms	1	2	3	4	5	0	
Foreign firms in local markets	1	2	3	4	5	0	
Importing firms	1	2	3	4	5	0	
Others	1	2	3	4	5	0	

4.04 Please indicate your attitude towards accessing different public infrastructure & services to the firm	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Not applicable
The firm is located along the regional highway road	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The firm is at the city center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is access to telephone services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is access to electricity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is access to water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is continuous phone services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is continuous and uninterrupted electricity supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is continuous and uninterrupted water supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental conditions	
4.05 Distance from production facility to main road	_____ km
4.06 Travel time	_____ hours _____ minutes
4.07 Distance from production facility to the nearest major market	_____ km
4.08 Electricity interruptions	Occurrence per month _____
4.09 Social violence in community	Number of incidences per month _____

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4.10 Frequency of thefts in the business Incidences per year \_\_\_\_\_

4.11 Frequency of thefts in the community Incidences per year \_\_\_\_\_

4.12 Changes in business regulations from government Incidences per year \_\_\_\_\_

- 1= Never
- 2= Once in five years
- 3= Once a year
- 4= Twice a year
- 5= Monthly

4.13 How convenient is the procedure for getting business license? Average number of days \_\_\_\_\_  
 (from initial application to getting a license)

- 1= Very inconvenient
- 2= Inconvenient
- 3= Neutral
- 4= Convenient
- 5= Very convenient

### Part V: Strategic Management Practices

The following are the statements describing activities that firms perform in managing their strategies. Please rate from 'strongly disagree' to 'strongly agree' and NA if 'not applicable'

5.01 Environmental scanning activities	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	I don't know	N/A
You have developed a list of strengths and weaknesses (of the firm)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You are informed about all opportunities that are good for firm development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You understand your customers and which products they need	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.02 Planning activities	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	I don't know	N/A
You have visualized what your firm might be like 5 to 10 years from now	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You have developed a list of firms' objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The objectives are regularly updated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The objectives are known to every employee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.03 Implementation	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	I don't know	N/A
You have fully developed operational procedures manual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The procedures of work are fully communicated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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The procedures are fully understood by every employee	<input type="checkbox"/>						
The firm can afford to finance actual implementation of strategies	<input type="checkbox"/>						
The employees are fully committed on implementation of strategies	<input type="checkbox"/>						
There is adequate number of staff to implement firm strategies	<input type="checkbox"/>						
There is enough competencies to implement the strategies	<input type="checkbox"/>						

5.04 Evaluation and control	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	I don't know	N/A
You regularly compare your activities to your plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You develop alternative plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You regularly compare your strategies with your competitors'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.05 Are you familiar with the following business tools? (1=Yes 2= No)	5.06 How often do you use them?				
	Never	Seldom	Occasionally	Frequently	Always
a Balance sheet [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Profit and loss statement [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Cash flow [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Sales trend projections [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Cost benefit ratio analysis [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Performance appraisal [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g Risk analysis [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h Net present value (NPV) [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i Brainstorming [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j Analysis of firm's strength, weaknesses, opportunities and threats (SWOT) [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.06 To what extent do you agree or disagree with the following statements;	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	I don't know	N/A
a. You continually redefine your service priorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. You seek to be the first to identify new modes of delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Searching for new opportunities is a major part of your overall strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. You often change your focus to new market areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. You seek to maintain stable service priorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. The service emphasizes efficiency of provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Questionnaire # \_\_\_\_\_  
Respondent # \_\_\_\_\_

Interviewer ID \_\_\_\_\_

g. You focus on your core activities	<input type="checkbox"/>						
h. You have no definite service priorities	<input type="checkbox"/>						
i. You change provision only when under pressure from external agencies	<input type="checkbox"/>						
j. You give little attention to new opportunities for product delivery	<input type="checkbox"/>						
k. You explore new opportunities when under pressure from <i>interest</i> groups	<input type="checkbox"/>						
l. You have no consistent response to external pressure	<input type="checkbox"/>						

### Part VI: Firm Performance

Select all that apply

6.01 Which indicator do you use to see if you have performed? Please rate your favored indicator	Highly unfavorable	Unfavorable	Neutral	Favorable	Highly favorable	I don't know	Not applicable
a. Number of customers	<input type="checkbox"/>						
b. Full capacity of production	<input type="checkbox"/>						
c. Sales growth (number of product)	<input type="checkbox"/>						
d. Sales growth (revenue)	<input type="checkbox"/>						
e. Others _____ (please specify)	<input type="checkbox"/>						

6.02 Over the last 3 years, to what extent has the overall performance of the firm been achieved? It is achieved by\_\_

1. [ ] 100%	2. [ ] Between 50 and 100%	3. [ ] Less than 50%	4. [ ] Very little achieved	5. [ ] Not achieved at all
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6.03 Having in your mind your overall business performance, what is your opinion on changes in sales revenue, total expenses and number of employee?	Decrease	A little decrease	Stay the same	A little increase	Increase
Sales revenue this year in 2013.	<input type="checkbox"/>				
Sales revenue last year in 2012.	<input type="checkbox"/>				
Sales revenue in 2011.	<input type="checkbox"/>				
<b>Total expenses</b>					
Total expenses this year in 2013	<input type="checkbox"/>				
Total expenses last year in 2012	<input type="checkbox"/>				
Total expenses in 2011	<input type="checkbox"/>				
<b>Number of employees</b>					
Number of employees this year in 2013	<input type="checkbox"/>				
Number of employees last year in 2012	<input type="checkbox"/>				
Number of employees in 2011	<input type="checkbox"/>				

Key:

Year 2013 = 1<sup>st</sup> July 2012 → 30<sup>th</sup> June 2013

Year 2012 = 1<sup>st</sup> July 2011 → 30<sup>th</sup> June 2012

Year 2011 = 1<sup>st</sup> July 2010 → 30<sup>th</sup> June 2011

Questionnaire # \_\_\_\_\_  
 Respondent # \_\_\_\_\_

Interviewer ID \_\_\_\_\_

6.04 What is your opinion on future performance of the firm?	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	I don't know	N/A
a. Sales revenue will absolutely increase in the next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Total expenses will absolutely decrease in the next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. The number of employees will increase in the next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. New product varieties and brands will increase in the next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.05 Which among the following is likely to challenge your business?	Most unlikely	Unlikely	Neutral	Likely	Very likely	I don't know	Not applicable
1. Inflation	<input type="checkbox"/>						
2. Taxation	<input type="checkbox"/>						
3. Decrease in product demand	<input type="checkbox"/>						
4. High interest rates	<input type="checkbox"/>						
5. Difficult Access to credit	<input type="checkbox"/>						
6. Corruption	<input type="checkbox"/>						
7. Personnel (recruiting, training and maintaining)	<input type="checkbox"/>						
8. Excessive legal controls	<input type="checkbox"/>						
9. Bureaucracy in government administrative regulations	<input type="checkbox"/>						
10. Competition from food importers	<input type="checkbox"/>						
11. Lack of business support services	<input type="checkbox"/>						
12. Availability of harvest from farmers	<input type="checkbox"/>						
13. Others	<input type="checkbox"/>						

**6.06 What recommendations do you have for better firm management?**

.....

.....

.....

.....

**Thank you for your participation!**



Dodoso # \_\_\_\_\_  
Mhojiwa # \_\_\_\_\_

ID Na. ya Msaili \_\_\_\_\_

**Sehemu ya I: Wasifu wa Mhojiwa**

<b>1.01</b> [ ] <b>Jinsia</b>	<b>1.02</b> [ ] <b>Elimu</b>	<b>1.03</b> [ ] <b>Nafasi katika kampuni</b>
1. Mme 2. Mke	1. Hajawahi kusoma 2. Ana elimu ya msingi 3. Ana elimu ya sekondari 4. Ana cheti cha chuo 5. Ana shahada 6. Nyingine	1. Mmiliki 2. Mkurugenzi 3. Yote 1 na 2 4. Mshirika katika biashara 5. Mwajiriwa 6. Nyingine

**1.04** **Idadi ya miaka uliyotumia katika elimu** \_\_\_\_\_

<b>1.05</b> <b>Una umri gani?</b> miaka _____	<b>1.06</b> <b>Idadi ya miaka uliyokaa katika kampuni hii</b> Miaka _____ Miezi _____	<b>1.07</b> <b>Je hapo awali ulikuwa na wasifu gani kikazi kabla ya kujiunga na kampuni hii? [ ]</b> 1. Mwajiriwa (Shirika la umma) 2. Mwajiriwa (kampuni binafsi) 3. Mwanafunzi 4. Mama wa nyumbani (kwa wanawake) 5. Sikuajiriwa
--	---	---

**1.08** **Je unazungumza lugha ngapi?** Asili/Kienyeji \_\_\_\_\_ Kigeni \_\_\_\_\_  
Chagua;  
1. Kiswahili [ ] 2. Kiingereza [ ] 3. Nyingine \_\_\_\_\_ [ ] 4. Nyingine \_\_\_\_\_ [ ]



<b>1.09</b> <b>Umilisi wa lugha za Kigeni</b>	Sio vizuri sana	Si vizuri	Katikati	Vizuri	Vizuri sana
1. Ninaweza kuandika Kiingereza.	<input type="checkbox"/>				
2. Ninaweza kuelewa Kiingereza.	<input type="checkbox"/>				
3. Ninaweza kusoma Kiingereza.	<input type="checkbox"/>				
4. Ninaweza kuzungumza Kiingereza.	<input type="checkbox"/>				

<b>1.10</b> <b>Kwa kipimo cha kuanzia 1 mpaka 5, jipime uwezo wako wa kiutaalamu katika mambo yafuatayo (linganisha na waajiriwa wote katika kampuni hii)</b>	Sifahamu kabisa 1	Nahitaji marekebisho 2	Wastani 3	Vizuri 4	Vizuri sana 5	Haipo
1. Utunzaji mahesabu na uhasibu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Kusimamia waajiriwa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Mbinu za masoko	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Utawala wa fedha	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Kuhesabu mali na kutunza kumbukumbu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Sifa ya chakula na usalama	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Huduma kwa wateja	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Utangazaji mazao	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Usindikaji chakula	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Nyingine _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Nyingine _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**1.11** (kama mhojiwa sio mmiliki)  
**Je mwenye kampuni anashiriki katika uendeshaji wa kampuni kila siku?** Ndio=1 Hapana=0 [ ]

Dodoso # \_\_\_\_\_  
Mhojiwa # \_\_\_\_\_

ID Na. ya Msaili \_\_\_\_\_

### Sehemu ya II: Sifa za Kampuni

2.1 Je kampuni iko wapi? [ ]

1. Jiji
2. Mji
3. Kijijini

2.2 Umri wa shughuli za kampuni:  
Miaka \_\_\_\_\_ Miezi \_\_\_\_\_

2.4 [ ] Je ni kampuni ya familia?

1. Ndio
2. Hapana

2.3 [ ] Sifa za kampuni

1. Binafsi
2. Ubia/ushirika
3. Umma
4. Nyinginezo

2.5 Idadi ya wamiliki wengine \_\_\_\_\_

**Idadi ya wafanyakazi**

2.06 Waajiriwa wa kudumu \_\_\_\_\_

2.07 Waajiriwa wa mikataba \_\_\_\_\_

2.08 Aina ya wawekezaji biashara [ ]

1. Wawekezaji wa nje
0. Hamna wawekezaji wa nje

2.09 Biashara ya nje [ ]

1. Huuza nje ya nchi
0. Haiuzi nje ya nchi

2.10 Kiasi cha mtaji mkuu shilingi \_\_\_\_\_



2.11 Sentensi	Sikubaliani kabisa	Sikubali	Sikubali wala sikatai	Nakubali	Nakubaliana kabisa
a. Una taswira ya muundo wa kampuni					
b. Umeweka wazi mgawanyo wa kazi kwa wafanyakazi					
c. Umeandika mpango wa biashara unaoeleweka					
d. Una uwezo wa kufuata taratibu zote za biashara kisheria					

2.12	Jina la bidhaa	Aina ya mazao: 1 = Mbegu    2 = Matunda 3 = Mbogamboga 4 = Nyinginezo	1= Za kuharibika haraka 2= Si za kuharibika haraka	Malighafi napata kutoka 1= Wakulima wa ndani 2= Nje ya nchi	Maoni
	Bidhaa ya 1	_____	[ ]	[ ]	
	Bidhaa ya 2	_____	[ ]	[ ]	
	Bidhaa ya 3	_____	[ ]	[ ]	
	Bidhaa ya 4	_____	[ ]	[ ]	
	Bidhaa ya 5	_____	[ ]	[ ]	
	Bidhaa ya 6	_____	[ ]	[ ]	

Dodoso # \_\_\_\_\_  
Mhojiwa # \_\_\_\_\_

ID Na. ya Msaili \_\_\_\_\_

**Sehemu ya III: Maliasili na Mazingira ya Kampuni**

3.01 Ni kwa kiasi gani umewezeza katika mambo yafuatayo?	Kidogo sana (mpaka 0%)	Kidogo (25%)	Wastani (50%)	Juu (75%)	Juu sana (mpaka 100%)	Haipo	Sijui
Majengo ya kampuni	<input type="checkbox"/>						
Magari ya kampuni	<input type="checkbox"/>						
Mafunzo ya waajiriwa	<input type="checkbox"/>						
Teknolojia ya uzalishaji	<input type="checkbox"/>						
Vifaa vya ofisini	<input type="checkbox"/>						
Shughuli za masoko	<input type="checkbox"/>						
Nyingine _____	<input type="checkbox"/>						
Nyingine _____	<input type="checkbox"/>						

3.02 Onesha malighafi unazotumia katika uzalishaji wako. Halafu pima namna zinavyopatikana katika kampuni yako.	Hazipatikani	Zinapatikana sana			Haipo	Sijui
1. Mazao ya kilimo	<input type="checkbox"/>					
2. Mazao yasiyo ya kilimo	<input type="checkbox"/>					
3. Mengineyo	<input type="checkbox"/>					

3.03 Tafadhali pima uwezo wote wa kiteknolojia ya huduma ya uzalishaji. (Tumia vigezo vya 1= Si ya kiteknolojia na 5 = Ya kiteknolojia, ya kisasa zaidi).	Si ya kiteknolojia, Tunatumia teknolojia ya kizamani			Ni Ya teknolojia ya juu, Tunatumia teknolojia ya kisasa zaidi	
	1	2	3	4	5
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Kumbuka:**

Pale teknolojia moja inapitwa na teknolojia mpya, ya kisasa na bora, basi teknolojia ya awali inakuwa imepitwa na wakati, hii inategemea modeli ya teknolojia. Teknolojia ya kisasa hutumia umeme kidogo, ni nyepesi kubeba, ni bora katika uzalishaji, na hudumu.

3.04 Onesha uwezo wa matumizi ya mitandao na kompyuta katika shughuli za usindikaji chakula	Kamwe	Mara moja kwa juma	Mara mbili kwa juma	Mara tatu kwa juma	Kila siku	Haipo
1. Simu	<input type="checkbox"/>					
2. Kompyuta ya mezani	<input type="checkbox"/>					
3. Kompyuta ya kiganjani (laptop)	<input type="checkbox"/>					
4. Mashine ya kutolea nakala	<input type="checkbox"/>					
5. Mtandao (barua pepe)	<input type="checkbox"/>					
6. Skena	<input type="checkbox"/>					
7. Nukunishi/Nukushi (fax)	<input type="checkbox"/>					
8. Nyinginezo _____	<input type="checkbox"/>					
9. Nyinginezo _____	<input type="checkbox"/>					

3.05 Zipi kati ya habari zifuatazo unazipata kirahisi?	Hazipatikani kabisa	Zinapatikana sana			Haipo	Sijui
Sehemu za kupata malighafi	<input type="checkbox"/>					
Mabadiliko ya bei za bidhaa	<input type="checkbox"/>					
Masoko	<input type="checkbox"/>					

Dodoso # \_\_\_\_\_  
Mhojiwa # \_\_\_\_\_

ID Na. ya Msaili \_\_\_\_\_

Habari za wateja	<input type="checkbox"/>						
Wakati muafaka wa kuuza	<input type="checkbox"/>						
Taarifa za washindani wa kibiashara	<input type="checkbox"/>						
Viwango vya kodi	<input type="checkbox"/>						
Washirika kibiashara	<input type="checkbox"/>						
Nyinginezo _____	<input type="checkbox"/>						

3.06 Pima utaalamu wa kampuni yako katika vigezo vifuatavyo	Hajaisome a kabisa 1	2	3	4	Amesomea sana 5	Haipo	Sijui
Utanzaji mahesabu	<input type="checkbox"/>						
Utawala wa watu	<input type="checkbox"/>						
Mbinu za masoko	<input type="checkbox"/>						
Utawala wa fedha	<input type="checkbox"/>						
Utanzaji kumbukumbu	<input type="checkbox"/>						
Uhasibu	<input type="checkbox"/>						
Huduma kwa wateja	<input type="checkbox"/>						
Uwasilishaji wa mazao	<input type="checkbox"/>						
Usindikaji chakula	<input type="checkbox"/>						
Nyingine _____	<input type="checkbox"/>						
Nyingine _____	<input type="checkbox"/>						

3.07 Nini vyanzo vyako vikuu viwili vya pesa kwa ajili ya uwekezaji wa muda mrefu?

Pesa binafsi	= 1	[ ]
Mkopo wa muda mfupi (chini ya mwaka 1)	= 2	[ ]
Mkopo wa muda mrefu (zaidi ya mwaka 1)	= 3	[ ]
Pesa za ubia	= 4	[ ]
Nyinginezo, elezea:	= 5	[ ]

3.08 Wakati wa mchakato wa kuomba mkopo wa kupanua shughuli za kampuni yako na kuwekeza zaidi, unazionaje huduma zifuatazo?					Sijui	Haipo
	Sio nzuri kabisa	Sio nzuri	Wastani	Nzuri	Nzuri sana	
Mkopeshaji binafsi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benki ya binafsi (vijijini)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benki ya binafsi (mjinni)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benki ya ushirika	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fedha za jumuiya	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Benki ya serikali	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kampuni binafsi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nyingine _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nyingine _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Dodoso # \_\_\_\_\_  
Mhojiwa # \_\_\_\_\_

ID Na. ya Msaili \_\_\_\_\_

### Sehemu ya IV: Mazingira ya Nje

4.01 Katika kiwango cha 1 mpaka 5, tafadhali pima kiwango cha upatikanaji wa malighafi utakazohizaji katika uzalishaji	Hazipatikani				Zinapatikana sana		Haipo	Sijui
1. Mazao yatoakanayo na kilimo	<input type="checkbox"/>							
2. Mazao yasiyotokana na kilimo	<input type="checkbox"/>							
3. Mengineyo	<input type="checkbox"/>							

4.02 Je ni sehemu gani kati ya hizi zifuatazo ndio muhimu katika mauzo ya kampuni yako?	Sio muhimu kabisa	Sio muhimu	Katikati	Muhimu	Muhimu sana	Sijui	Haihusiki
a. Maeneo ya jirani	<input type="checkbox"/>						
b. Soko asilia la chakula	<input type="checkbox"/>						
c. Maduka madogomadogo	<input type="checkbox"/>						
d. Maduka makubwa (supamaketi)	<input type="checkbox"/>						
e. Masoko ya jumla (maduka ya jumla)	<input type="checkbox"/>						
f. Hoteli, shule na makazini	<input type="checkbox"/>						
g. Masoko ya kimataifa	<input type="checkbox"/>						
h. Mengineyo _____	<input type="checkbox"/>						

4.03 Je unajipimaje uwezo wako wa ushindani kwa kuangalia;	Hafu sana	Hafifu	Wastani	Imara	Imara sana	Sijui	Haipo
Makampuni ya ndani	1	2	3	4	5	0	
Makampuni ya nje katika masoko ya ndani	1	2	3	4	5	0	
Makampuni yanayoagiza bidhaa toka nje	1	2	3	4	5	0	
Mengineyo	1	2	3	4	5	0	

4.04 Tafadhali onyesha mtazamo wako jinsi kampuni yako inavyopata huduma za miundombinu ya umma na huduma nyingine mbalimbali	Nakataa katukatu	Nakataa	Sikubali wala sikatai	Nakubali	Nakubali kabisa	Haipo
Kampuni ipo katika barabara kuu ya mkoa	<input type="checkbox"/>					
Kampuni ipo katikati ya mji	<input type="checkbox"/>					
Kuna huduma za simu	<input type="checkbox"/>					
Napata huduma za umeme	<input type="checkbox"/>					
Napata huduma za maji	<input type="checkbox"/>					
Kuna huduma za kudumu za simu	<input type="checkbox"/>					
Napata huduma za umeme usiokatikakatika	<input type="checkbox"/>					
Napata huduma za maji yasiyokatikakatika	<input type="checkbox"/>					

Hali ya mazingira	
4.05 Umbali kutoka sehemu ya uzalishaji mpaka barabarani	km _____ 4.06 Muda wa kusafiri Masaa _____ Dakika _____
4.07 Umbali kutoka sehemu ya uzalishaji mpaka soko la karibu	km _____
4.08 Kukatikakatika kwa umeme	Inatokea mara ngapi kwa mwezi _____
4.09 Vurugu katika jamii (mtaani)	Zinatokea mara ngapi kwa mwezi _____

Dodoso # \_\_\_\_\_  
Mhojiwa # \_\_\_\_\_

ID Na. ya Msaili \_\_\_\_\_

- 4.10 Uwizi kutoka katika biashara Inatokea mara ngapi kwa mwaka \_\_\_\_\_
- 4.11 Uwizi katika jamii (mtaani) Inatokea mara ngapi kwa mwaka \_\_\_\_\_
- 
- 4.12 Mabadiliko ya sheria za biashara serikalini Inatokea mara ngapi kwa mwaka \_\_\_\_\_  
 1= Kamwe  
 2= Mara moja ndani ya miaka mitano  
 3= Mara moja kwa mwaka \_\_\_\_\_  
 4= Mara mbili kwa mwaka  
 5= Kila mwezi
- 
- 4.13 Je kuna utaratibu gani wa kupata leseni ya biashara? Idadi ya siku \_\_\_\_\_  
 (Kutoka siku ya kuomba mpaka kupata leseni)
- 1= Sio Mzuri kabisa  
 2= Sio Mzuri  
 3= Katikati  
 4= Mzuri  
 5= Mzuri sana

### Sehemu ya V: Mbinu na Mipango ya Usimamizi

Sentensi zifuatazo ni maelezo juu ya shughuli mbalimbali ambazo makampuni huzifanya ili kutekeleza mipango yao. Tumia kipimo cha 1 mpaka 6; ikiwa 1 ni 'kukataa katukatu' na 6 ni 'kukubali kabisa' 0, kama *hujui* na NA kama '*haiipo*'

5.01 Shughuli za kuyachunguza mazingira	Nakataa katakata	Nakataa	Sikubali wlaa sikatai	Nakubali	Nakubali kabisa	Sijui	Haipo
Umeorodhesha uwezo na mapungufu ya kampuni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Una taarifa juu ya fursa nzuri kwa ajili ya maendeleo ya kampuni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unawaelewa wateja wako na mahitaji yao ya huduma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.02 Mipango na shughuli zake	Nakataa katakata	Nakataa	Sikubali wlaa sikatai	Nakubali	Nakubali kabisa	Sijui	Haipo
Umeshona jinsi kampuni yako itakavyokuwa kuanzia sasa mpaka miaka 5 hadi 10 ijayo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Umeorodhesha malengo ya kampuni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Malengo ya kampuni hurekebishwa mara kwa mara	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Malengo ya kampuni yanajulikana kwa kila mwajiriwa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.03 Utekelezaji	Nakataa katakata	Nakataa	Sikubali wlaa sikatai	Nakubali	Nakubali kabisa	Sijui	Haipo
Umetengeneza vitabu vinayoonesha namna ya undeshaji	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Umewasilisha taratibu za kazi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Dodoso # \_\_\_\_\_  
Mhojiwa # \_\_\_\_\_

ID Na. ya Msaili \_\_\_\_\_

Taratibu zinaeleweka na kila mfanyakazi	<input type="checkbox"/>						
Kampuni inaweza kufadhili utekelezaji wa mipango yake	<input type="checkbox"/>						
Wafanyakazi wana ari ya kutekeleza mipango ya kampuni	<input type="checkbox"/>						
Kuna wafanyakazi wa kutosha kutekeleza mipango ya kampuni	<input type="checkbox"/>						
Kuna uwezo wa kutosha wa kutekeleza mipango hii	<input type="checkbox"/>						

5.04 Tadhmini na udhibiti	Nakataa katakata	Nakataa	Sikubali wala sikatai	Nakubali	Nakubali kabisa	Sijui	Haipo
Unalinganisha shughuli zako na mipango yako mara kwa mara	<input type="checkbox"/>						
Unatengeneza mipango mbadala	<input type="checkbox"/>						
Unalinganisha mipango yako na ile ya washindani wako	<input type="checkbox"/>						

5.05 Je unafahamu nyenzo za kibiashara zifuatazo? (1=Ndio 2= Hapana)	5.06 Je unazitumia mara ngapi?				
	Kamwe	Mara chache	Mara moja moja	Mara nyingi	Wakati wote
a Urari (Uwiano wa mahesabu) [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Akaunti ya faida na hasara [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Mapato ya hela (Mtiririko wa mapato ya hela) [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Maazimia ya mwelekeo wa mauzo [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Uchanganuzi wa maslahi [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f Tathmini ya utendaji [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g Uchambuzi wa vihatarishi [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h Tathmini ya thamani ya sasa [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i Chemshabongo [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j Uchambuzi wa uwezo, mapungufu, fursa na vihatarishi vya kampuni [ ]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.06 Kwa kiasi gani unakubali anaau kukataa kauli zifuatazo;	Nakataa katakata	Nakataa	Sikubali wala sikatai	Nakubali	Nakubali kabisa	Sijui	Haipo
a. Unaelezea vipaumbele vya huduma yako	<input type="checkbox"/>						
b. Unajitahidi kuhakikisha unakuwa wa kwanza kutoa huduma mpya	<input type="checkbox"/>						
c. Kutafuta fursa mpya ni sehemu kubwa ya mikakati yako	<input type="checkbox"/>						
d. Unabadili malengo mara kwa mara wakati wa masoko mapya	<input type="checkbox"/>						
e. Unajitahidi kusimamia vipaumbele imara	<input type="checkbox"/>						
f. Huduma husika hutilia mkazo ufanisi katika utoaji	<input type="checkbox"/>						

Dodoso # \_\_\_\_\_  
Mhojiwa # \_\_\_\_\_

ID Na. ya Msaili \_\_\_\_\_

huduma							
g. Unasimamia shughuli zako kuu	<input type="checkbox"/>						
h. Huna vipaumbele katika shughuli	<input type="checkbox"/>						
i. Unabadili huduma kunapokuwa na shinikizo kutoka kwa mawakala wa nje	<input type="checkbox"/>						
j. Unazipa uzito mdogo fursa mpya katika kutoa huduma	<input type="checkbox"/>						
k. Unatafuta fursa mpya unapopata changamoto kutoka kwa makundi shiriki	<input type="checkbox"/>						
l. Huna majawabu rasmi kwa mashinikizo ya nje	<input type="checkbox"/>						

### Sehemu ya VI: Ufanisi wa Kampuni

Chagua majibu yote yanayofaa

6.01 Ni vigezo gani unatumia kupima kama umefanikiwa? Tafadali pima vigezo vyako	Haifai kabisa	Haifai	Katikati	Inafaa	Inafaa zaidi	Sijui	Haipo
a. Idadi ya wateja	<input type="checkbox"/>						
b. Uzalishaji wa hali ya juu	<input type="checkbox"/>						
c. Kukua kwa mauzo (idadi ya bidhaa)	<input type="checkbox"/>						
d. Kukua kwa mauzo (mapato)	<input type="checkbox"/>						
e. Nyingine _____ (elezea tafadhali)	<input type="checkbox"/>						

6.02 Kwa miaka 3 iliyopita, kwa kiasi gani kampuni hii imefanikiwa? Lengo limetimizwa kwa \_\_\_\_

1. [ ]      2. [ ]      3. [ ]      4. [ ]      5. [ ]  
100%      Kati ya 50 na 100%      Chini ya 50%      Mafanikio kidogo sana      Mafanikio hamna

6.03 Ukizingatia utendaji wa kampuni yako kwa ujumla, nini maoni yako juu ya madadiliko ya mapato ya mauzo, matumizi kwa ujumla, na idadi ya waajiriwa/wafanyakazi? (Kipimo cha 1= Kupungua hadi 5 = Kuongezeka)	Pungua	Pungua kidogo	Hajjabadilika	Imeongezeka kidogo	Imeongezeka
Mapato ya mauzo mwaka huu wa 2013.	<input type="checkbox"/>				
Mapato ya mauzo mwaka uliopita wa 2012.	<input type="checkbox"/>				
Mapato ya mauzo mwaka juzi wa 2011.	<input type="checkbox"/>				
<b>Jumla ya matumizi</b>					
Jumla ya matumizi mwaka huu wa 2013	<input type="checkbox"/>				
Jumla ya matumizi mwaka uliopita wa 2012	<input type="checkbox"/>				
Jumla ya matumizi mwaka juzi wa 2011	<input type="checkbox"/>				
<b>Idadi ya wafanyakazi</b>					
Idadi ya wafanyakazi mwaka huu wa 2013	<input type="checkbox"/>				
Idadi ya wafanyakazi mwaka uliopita wa 2012	<input type="checkbox"/>				
Idadi ya wafanyakazi mwaka juzi wa 2011	<input type="checkbox"/>				

Ufunguo:

Mwaka 2013 = Kuanzia tarehe 1 Julai 2012 mpaka tarehe 30 Juni 2013

Mwaka 2012 = Kuanzia tarehe 1 Julai 2011 mpaka tarehe 30 Juni 2012

Mwaka 2011 = Kuanzia tarehe 1 Julai 2010 mpaka tarehe 30 Juni 2011

Dodoso # \_\_\_\_\_  
Mhojiwa # \_\_\_\_\_

ID Na. ya Msaili \_\_\_\_\_

6.04 Nini maoni yako juu ya utendaji wa kampuni yako siku zijazo?	Nakataa kabisa	Nakataa	Sikatai wala kukubali	Nakubali	Nakubali kabisa	Sijui	Haipo
a. Mapato ya mauzo yataongezeka mwaka ujao	<input type="checkbox"/>						
b. Matumizi yote yataongezeka mwaka ujao	<input type="checkbox"/>						
c. Idadi ya wafanyakazi itaongezeka mwaka ujao	<input type="checkbox"/>						
d. Aina ya bidhaa zitaongezeka mwaka ujao	<input type="checkbox"/>						

6.05 Yapi kati ya haya yanaweza kuwa changamoto kwa kampuni yako?	Nakataa kabisa	Nakataa	Sikatai wala kukubali	Nakubali	Nakubali kabisa	Sijui	Haipo
1. Mfumuko wa bei	<input type="checkbox"/>						
2. Kodi	<input type="checkbox"/>						
3. Kupungua kwa mahitaji wa mazao	<input type="checkbox"/>						
4. Riba kubwa	<input type="checkbox"/>						
5. Ugumu wa kupata mikopo	<input type="checkbox"/>						
6. Rushwa	<input type="checkbox"/>						
7. Wafanyakazi (ajira, mafunzo, kudumu)	<input type="checkbox"/>						
8. Uthibiti wa kisheria uliokithiri	<input type="checkbox"/>						
9. Urasimu katika taratibu za kiutawala serikalini	<input type="checkbox"/>						
10. Ushindani toka kwa waingizaji chakula toka nje	<input type="checkbox"/>						
11. Ukosefu wa huduma saidizi za kibiashara	<input type="checkbox"/>						
12. Upatikanaji wa mavuno toka kwa wakulima	<input type="checkbox"/>						
13. Nyinginezo	<input type="checkbox"/>						

6.06 Je una mapendekezo gani juu ya uendeshaji mzuri wa kampuni?

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.....

.....

Asante sana kwa ushirikiano!

## Curriculum Vitae

### Personal Details

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Name: **Theresia Dominic** (Ms.)  
Gender: Female  
Date of Birth: 08<sup>th</sup> April 1978  
Place of birth: Dar es salaam, Tanzania  
Marital status: Married (two children - \*2007, 2009)  
Nationality: Tanzanian

### Current address

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Goslerstraße 13, PF 114, 37073 Göttingen · Germany

### Academic education and scientific degrees

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2012 – Present *PhD Agricultural Sciences*, Department of Agricultural Economics and Rural Development, University of Goettingen, Goettingen, Germany.

2002 – 2004 *Masters in Business Administration*, University of Dar es Salaam, Dar es Salaam, Tanzania.

1999-2002 *BSc. Agricultural Economics and Agribusiness*, Sokoine University of Agriculture, Morogoro, Tanzania

### Conference papers and publications

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Dominic, T. and Theuvsen, L. (2015) “The impact of external and internal factors on strategic management practices of agribusiness firms in Tanzania”. GlobalFood Discussion Papers No. 55 <http://www.uni-goettingen.de/de/globalfood-discussion-paper-series/213486.html>.

Dominic, T., Theuvsen, L., Mvungi, M. and Ufunguo, R. (2014) “HomeVeg Tanzania Managing a New Strategy Amidst GLIMPSE Challenges”. *International Food and Agribusiness Management Review*, Vol. 17 Special Issue B.

Dominic, T. and Theuvsen, L. (2014), “Strategic management practices of agribusiness firms: The role of firm attributes and firm resources”. Paper presented at the 2nd Global Food Symposium, Göttingen, Germany, 25-26<sup>th</sup> April 2014.

### Research Interests

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Human resources management, strategic management and organization development issues in agribusiness sector

Grants and scholarships

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DAAD/MoEVT, scholarship, Doctoral research position in Global Food RTG, Germany, 2012-2015

Best Paper Award in the 10<sup>th</sup> International Academy of African Business and Development (IAABD) Conference, May 19-23, 2009, Makerere University Business School - Kampala, Uganda

SIDA SAREC, Scholarship, MBA programme at the University of Dar es Salaam, Tanzania (2002 – 2004)

Work experience

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2012 – Present *Doctoral Researcher* – Global Food RTG, Department of Agricultural Economics and Agribusiness, University of Goettingen, Goettingen, Germany

2005 – 2015 *Assistant Lecturer*, Department of General Management, University of Dar es Salaam, Tanzania

2002 – 2004 *Tutorial Assistant*, Department of General Management, University of Dar es Salaam, Tanzania

2002 – 2011 *Associate*, Entrepreneurship Centre, UDEC, Tanzania

2002 *Intern*, Credit Department - Head Office, CRDB Bank, Tanzania

Languages / Hobbies/ Other skills

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Swahili (fluent), English (fluent) and German (intermediate)

Travelling, Cooking and Gardening

Data analysis with MS-Excel, SPSS, STATA; R and SmartPLS 2.0 M3 softwares

Referees

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