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**DYNAMICS OF AGRICULTURAL MICRO, SMALL AND
MEDIUM ENTERPRISES LIFE-CYCLE FINANCING AND IMPLICATIONS
FOR SECTOR DEVELOPMENT IN ZIMBABWE**

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201610668

Thesis submitted in fulfilment of the requirements of the Degree
University of Fort Hare
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DOCTOR OF COMMERCE IN ECONOMICS

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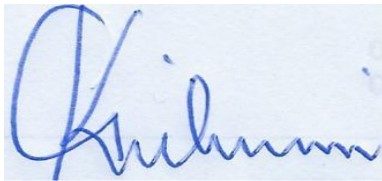
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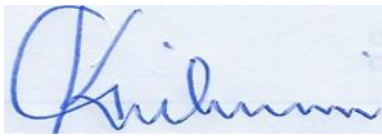
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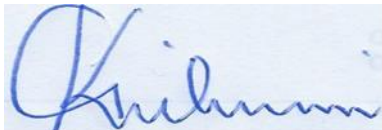


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I, the undersigned, **Gilbert Kichini**, student number **201610668**, hereby declare that I am fully aware of the University of Fort Hare's policy on research ethics, and I have taken every precaution to comply with the rules and regulations of that policy. I understand that my research which involves collection of primary data from many owners and/or managers of agricultural micro, small and medium enterprises as well as from executives in institutions financing the enterprises requires an ethical clearance certificate with a reference number prior to the commencement of a research of this nature. The ethical clearance certificate number SIM031SKIC01 (Appendix D) was issued to me by the University of Fort Hare's Research Ethics Committee (UREC) on 15 December 2016 in respect of this study. I confirm that I have complied with all the ethical codes of conduct as set out in the stated ethical clearance certificate during and after the field work.

In addition, an Informed Consent Form (Appendix C) has been signed by each respondent before participating in the study as proof of consent. The consent Form was prepared as a separate and independent form which is not connected or linked in any way to a particular data collection instrument completed, but for the purposes of consent only.



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DEDICATION

To my wife Ivy and wonderful children Delroy, Delsley and Delvin and the Lord God Almighty for strength and creative inspiration.



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ABSTRACT

Small, micro and medium-scale enterprises (SMMEs) contribute significantly to economic growth, employment and boosting the livelihoods of the poor in Zimbabwe. In the context of the Fast-track Land Reform and Re-distribution programme, agricultural SMMEs are viewed as the main pillar that anchors the recovery of the agricultural sector. Despite the key role they play, these SMMEs operate in a financially constrained environment in which access to funding is limited. In such a context, the ability of the SMMEs to perform their role depends on the strategic use of limited funding. One way to achieve this is to ensure that the funding used at each of the life-cycle stages of the business is the most suitable in addressing the main threats to business success.

Much has been studied about how the supply-side factors have constrained growth and development. However, very limited focus has been placed on how SMME owners use the limited funding secured to address the main operational problems faced. The funding behaviour of the owners has to support the supply-side initiatives if the SMMEs are to survive and fulfil their envisaged role in the economy. This study thus analyses the use of funding by the owners along the business life-cycle based on a six-stage life-cycle model. It further analyses the suitability of such funding given the unique operational needs and challenges per stage as well as best practices. The specific objectives of the study are to identify the level of knowledge that SMME owners have about the financing options available and which ones are mostly used, determine the use and suitability of life-cycle financing focusing on agricultural SMMEs and also determine the most suitable life-cycle funding in terms of best practices for sector development.

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A cross-sectional survey research design was used given the lack of accurate time-series data and it followed a mixed-methods approach. Quantitative and qualitative data were analysed. The owners or managers of agricultural SMMEs and the institutions providing funding constituted the two populations studied. A multiple-stage sampling strategy was used to determine a final sample of 320 owners of agricultural SMMEs while purposive sampling was used to draw a sample of 12 main SMME financing institutions. A semi-structured questionnaire was used to collect data from the owners while an administered semi-structured questionnaire was used for financing institutions. The unit of analysis was the funding used along the business life-cycle. Frequency, binary logistic regression, Chi-Square tests of association and Odds-ratio analysis were used for quantitative data analysis while Qualitative-failure mode, effects and criticality analysis (Q-FMECA) and thematic analysis were used to analyse qualitative data. Results show a persistent rather than transitory reliance on internal funding contrary to theoretical propositions on life-cycle financing. Overall, life-cycle funding used was not in line with best practices for funding SMMEs especially in financially constrained environments where funding should be effectively and efficiently used. The study adds to literature on agricultural SMMEs funding in financially constrained environments and makes offers some policy recommendations to improve financing for development of the key subsector.

Key words and phrases:

Agricultural SMMEs, Life-cycle financing, binary logistic regression, life-cycle financing framework, Zimbabwe.

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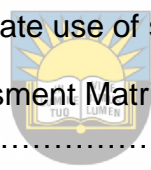


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LIST OF ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
AU	African Union
CAADP	Comprehensive African Agriculture Development Programme
CAPF	Comprehensive Agriculture Policy Framework
CFU	Commercial Farmers' Union
DFID	Department for International Development
DBSA	Development Bank of Southern Africa
FAO	Food and Agriculture Organisation
FNSP	Food and Nutrition Security Policy
FTLRP	Fast Track Land Reform Programme
GMRDC	Govan Mbeki Research Development Centre
GoZ	Government of Zimbabwe
IFC	International Finance Corporation
	International Monetary Fund
IOSCO	International Organization for Securities Commission
SMME	Micro, Small and Medium Enterprises
ODA	Overseas Development Assistance
OECD	Organization for Economic Co-operation and Development
OECD/INFE	Organisation for Economic Co-operation and Development International Network on Financial Education
Q-FMECA	Qualitative Failure Modes, Effects and Criticality Analysis
RBZ	Reserve Bank of Zimbabwe
RPN	Risk Priority Number

SADC	Southern African Development Community
SDGs	Sustainable Development Goals
USAID	United States Agency for International Development
ZAIP	Zimbabwe Agriculture Investment Programme
ZAS	Zimbabwe Agricultural Society
ZCFU	Zimbabwe Commercial Farmers' Union
ZFU	Zimbabwe Farmers' Union
ZIMASSET	Zimbabwe Agenda for Sustainable Socio-Economic Transformation
ZIMRA	Zimbabwe Revenue Authority



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CHAPTER ONE: INTRODUCTION

1.0 Introduction

Small, micro and medium enterprises (SMMEs), particularly those in the agricultural sector, play a crucial role in the development of an economy in Zimbabwe. Their important contributions to gross domestic product (GDP) and job creation have been acknowledged in academic literature (Mutami, 2015, James, 2015). Also sector status reports such as by the Zimbabwe Agricultural Society (ZAS) and government policy documents highlight this contribution (Reserve Bank of Zimbabwe, 2016, ZAS, 2019, Government of Zimbabwe, 2012). They are regarded as the anchors of the recovery of the agricultural sector under the Fast-Track Land Reform programme (FTLRP) implemented in 2000. However, the persisting shortage of funding is acknowledged as a major hurdle in fulfilling their envisaged role (Mutami, 2015). The African Centre for Biodiversity (2015) explains how agricultural financing is at the crossroads and mainly negatively affecting development of SMMEs. In financially constrained environments such as in Zimbabwe, supply-side and demand-side factors contrive to stifle development of SMMEs. As such, any funding accessed has to be efficiently and effectively used by business owners to boost the growth of the SMMEs.

This chapter outlines the study conducted on the funding used by owners of agricultural SMMEs as well as its suitability along the evolutionary phases of the businesses. It briefly describes the background to the study, the statement of the research problem, the specific objectives of the study and research questions. The significance and contributions of the study are also explained. Some concepts at the core of the study are explained in terms of how they are specifically used in this study. The chapter concludes with an outline of the organisation of the study.

1.1 Background to the study

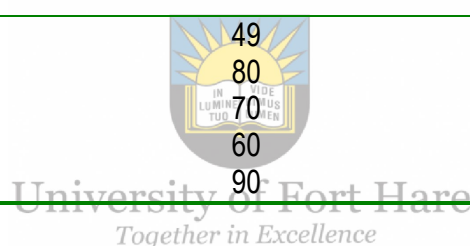
Globally, the important contribution of agricultural SMMEs has been acknowledged by governments, development finance institutions and development agencies. Agricultural SMMEs are small-scale commercial farmers and the small-scale agribusinesses that provide inputs critical for the success of small-scale agriculture. A lot of research work has been done and development funding provided by such

organizations to enhance the contribution of these SMMEs in developing countries. The research has been done both at global and national levels to provide insights on developing the important agricultural subsector. Despite the international support that agricultural SMMEs received with a focus on boosting food security in developing countries, a large financing gap persist. This has forced agricultural SMMEs in developing countries to operate in financially constrained environments. For instance, it is estimated that by 2017, unmet demand for credit by all SMMEs had already exceeded US\$8.9 trillion (IFC, 2017) compared to related credit supply of USD3.7 trillion (Beyani, 2020). In the African context, studies indicate that SMMEs contribute significantly to economic growth and employment, boosting the livelihoods of the majority of people (Muriithi, 2017). Table 1.1 below shows the socio-economic contribution of SMMEs in some selected African countries.

Table 1.1: SMME contribution to GDP and employment in selected African countries

Country	Contribution to GDP (%)	Contribution to employment (%)	Reference year
Ghana	70	49	2013
Kenya	40-50	80	2013
Nigeria	50	70	2012
South Africa	50-60	60	2012
Uganda	18	90	2015

Source: Muriithi (2017)



As shown in the table, SMMEs in Sub-Saharan Africa contribute as much as 70 percent to GDP as in the case of Ghana while accounting for up to 90 percent of employment as in Uganda. Such levels of economic contribution highlight the importance of adequate financing for these businesses. Ironically, financing of SMMEs has been inadequate globally. In Sub-Saharan Africa, access to suitable finance has also been singled out as one of the most important constraints to SMME survival and growth (Rungani and Potgieter, 2018, Osano and Languitone, 2016).

The funding gap shows a worsening trend especially in countries with financial market constraints and experiencing chronic macro-economic instabilities as observed in studies by the Organisation for Economic Co-operation and Development (OECD) and the International Organization for Securities Commissions (IOSCO). These organisations have observed that funding is curtailed when financial institutions

implement prudential measures in credit creation in response to the need to comply with capital adequacy requirements (OECD, 2016, IOSCO, 2015).

While the SMME funding gap is a global challenge, in Zimbabwe, SMMEs face acute financing constraints due to the broader poor economic performance negatively impacting the growth of the financial sector (Reserve Bank of Zimbabwe, 2015). Prudential banking requirements further force creditors to implement tighter credit controls to protect depositors' funds in a highly inflationary economic environment (Reserve Bank of Zimbabwe, 2016). Several studies have been undertaken and policy recommendations provided to improve the supply and access to finance for SMMEs in Zimbabwe (for instance, Masiyandima, Chigumira and Bara, 2011). The basic argument behind the heightened focus on reducing the impact of supply-side factors is that increased access to funding is the key solution to SMME development. This dominant view is reflected in available literature (Meyer, 2015, Baumann, 2015) particularly as adequacy of SMME funding is seen as an important determinant for success of the land reform programme.



1.2 Statement of the Research Problem

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Since the implementation of the FTLRP in Zimbabwe in 2000, SMMEs especially those in the agricultural and agribusiness sectors has become important pillars for recovery of both the sectors and the broader economy. They are regarded as having the capacity to introduce a large section of the low-income households to mainstream economic participation, boost their livelihoods and reduce poverty. Despite the key role they play, these SMMEs operate in a financially constrained environment with limited access to funding. This limits their contribution to the economy. The ability of the SMMEs to perform their role does not only depend on improved access to funding. It invariably also depends on the strategic use of limited funding accessed by their owners. Efforts to improve access to funding should be complemented by promotion of effective and efficient use of suitable funding if the envisaged full developmental impact is to be realized.

A large part of available literature explains factors affecting availability and access to finance for SMMEs and the policy measures to address them. Not much is known and yet limited attention has been given to studying the use, types and suitability of the

limited funding secured by the SMME owners for their businesses. Few empirical studies focus on this demand-side of SMME financing yet an understanding of the funding behaviour of the owners is vital. This is important in assessing whether the behaviour complements the supply-side initiatives aimed in improving the chance of SMMEs to survive and fulfil their envisaged role. This study thus focuses on the less explored demand-side of SMME financing and analyses the use of funding by the owners along the business life-cycle based on a six-stage life-cycle model. It further analyses the suitability of the types of funding used given the unique operational needs and challenges at each stage as well as best practices.

1.3 Research objectives

The general objective was to analyse the dynamics of agricultural small, micro and medium enterprise life-cycle financing and the implications for sector development in Zimbabwe. The specific objectives were to:

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- a) To determine the level of agricultural SMME owners' awareness of the main financing sources and instruments that are available and mostly used in Zimbabwe.
- b) To determine the main financing sources and instruments used by owners at the different stages of the business life-cycle.
- c) To assess the extent to which financing used addresses the critical life-cycle problems of agricultural SMMEs in Zimbabwe.
- d) To develop an agricultural SMME life-cycle funding framework that could be adopted as best practice.

1.4 Research Questions

The study aimed to address the following research questions:

- a) What is the level of agricultural SMME owners' awareness of the main sources and instruments for financing agricultural SMMEs that are available and mostly in in Zimbabwe?
- b) What are the main sources and instruments that agricultural SMME owners use at each stage of the business life-cycle?

- c) To what extent does funding used address the critical life-cycle problems of agricultural SMMEs in Zimbabwe?
- d) What agricultural SMME life-cycle funding framework could be developed for adoption as best practice?

1.5 Contribution of the study

The contributions of this study fall under two of the four basic areas of focus for research. The four typical focal areas are gap-spotting, problematization, critical confrontation and new idea (Sandberg and Alvesson, 2010). Gap-spotting identifies a knowledge or application gap in literature or practice, while problematization entails a rethinking of a concept or tradition with a view to reformulating it. Critical confrontation allows for criticizing a concept or theory through offering a more critical perspective or even confronting the underlying assumptions or application approach. Lastly, a research may generate an entirely new or innovative idea that is not found in existing literature.



This study entails gap-spotting and critical confrontation. It adds to the limited body of existing literature in response to the observed knowledge-gap on the use and types of SMME funding as well as the suitability of such funding at the various evolutionary stages. This study thus contributes to empirical literature on agricultural SMME owners' level of knowledge of financial sources and instruments as a determinant of appropriate life-cycle financing. Within the context of critical confrontation, the study reviews agricultural SMME owners' financing of their businesses in Zimbabwe. It assesses how the owners source and use finance along the business life-cycle stages and the reasons behind the financing patterns exhibited. Through this assessment, the study confronts the existing SMME financing pattern by the business owners and adds to literature through providing a framework for improving SMME funding.

Existing literature (for instance, OECD,2015;2017) acknowledges that some types and sources of funding are not suited for use at certain stages of SMME development. It explains the best practice pattern of use of funding and the suitability of financing used at each stage of the business life-. cycle. This study uses Qualitative Failure Modes, Effects and Criticality Analysis methodology to determine the most difficult stages and identify the main problems for which funding targeted to address. This risk analysis

technique is applied when accurate quantitative failure-rate secondary data is not available. This is the case with agricultural SMME failure rate at each life-cycle stage in Zimbabwe. In this regard, it makes a methodological contribution to the study of SMME financing.

The study is undertaken in a financially constrained environment and contributes to improving the demand-side SMME financing practice. It does this by recommending the use of a life-cycle financing framework to ensure that the limited funding sourced is effectively and efficiently used. Thus, it adds to literature on the use of funding and its suitability to address specific life-cycle stage challenges focusing on agricultural SMMEs in Zimbabwe. The significance of this contribution is that while supply-side of SMME financing has been widely researched, focusing on addressing the challenges, focus on the demand-side is relatively limited. Furthermore, the study tackles and contributes to the academic debate on the importance of the role played by SMME owners in the success of their enterprises. This study focuses on their financing behaviour as the business evolves. The policy recommendations offered in this study are some of the measures that may be implemented but also further explored in scholarly research and debate thus improving the knowledge base.

1.6 Contextualization of key concepts

In order to clarify the context of this study, a few definitions of some key concepts as applied in the study are in order. Table 1.2 below presents the key concepts, how they have been explained and used in theory and previous empirical studies. They are then contrasted with how they are applied in this study so as to contextualise the study.

Table 1.2: Contextualising key concepts

CONCEPT	THEORETICAL DEFINITION	CONTEXTUALISED THESIS DEFINITION
Dynamics	As generally applied in firm life-cycle theory, this is limited to small businesses not following development stages from one to the next in a definite pattern but rather having occasions where they relapse to earlier stages due to challenges before rebounding and moving to the	In this study, dynamics has a broader application covering variations in the key factors affecting financing of agricultural SMMEs. These variations include changes in life-cycle stage, entrepreneur awareness of financing sources and options available, affordability of funding, challenges faced in securing finance, application of financing at different life-cycle

	next stage (O'Farrell and Hitchens,1988)	stages, main problems addressed per stage and the appropriateness of stage financing used. Focus on its use in this study is not on the potential movement of small businesses in and out of decline stage, but to the variations in the factors influencing financing as business develops through the life-cycle stages.
Agricultural SMMEs	Reference to this category traditionally mainly relates to small-scale farmers (James,2015;Echanove,2017)	In this study, agricultural SMMEs include small-scale farming businesses engaged in agricultural production and SMMEs in agricultural production-related activities such as input supply in the form of wholesaling, marketing and trade (agro-dealers) and agro-processors involved in processing agricultural produce and stock-feed producers.
Sequential Life-cycle	From one stage to another without possibility of relapse (O'Farrell and Hitchens, 1988).	The life-cycle concept used in the study is one characterized by dynamic changes in the key factors or stage-specific factors affecting business performance.
Failure Mode, Effects and Criticality Analysis	This risk analysis method can be quantitative where failure rate data for products, systems or processes is available. However, qualitative assessments can be generated where quantitative data is not available (Lipol and Haq, 2011).	In this study, this analysis is restricted to use of qualitative ratings of the incidence, severity of effects and ease of detecting key stage problems. This method is used due to absence of hard quantitative failure rate data. It is used as a risk analysis framework for identifying and targeting funding at key stages in the context of limited funding available as in Zimbabwe.
Decline stage	End or final stage of business. Business collapse (Van Stel, Storey.and Thurik,2006)	In this study, decline stage is not an end stage but a process phase. It can set in at the end of any stage after set-up. It sets in when problems at any stage are not controlled as they manifest themselves. If problems are addressed, the business can rebound into the next stage. This view allows life-cycle analysis to be viewed in a dynamic rather than static manner. It explains how it is possible for owners of existing businesses to explain how they financed subsequent stages even when they might have experienced decline at some point.

Source: Author's own compilation for this study.

1.7 Organisation of the thesis

The thesis is organized into seven chapters. Chapter Two discusses the agricultural SMME sub-sector in the context of the historical contribution of agricultural sector in Zimbabwe. It explains agricultural policy, indigenization and economic empowerment, the FTLRP and the importance of the agricultural SMME subsector. The support mechanisms as well as the demand for and supply of agricultural SMME funding are discussed.

In Chapter Three, literature relating to life-cycle financing of SMMEs is reviewed and discussed in the context of the study. The chapter discusses the conceptual and theoretical frameworks underpinning the study, including the main theories relating to SMME life-cycle financing. It then explores empirical literature on the sources, types and suitability of life-cycle funding and ends with a discussion of the gaps in literature which form the basis of this study. The fourth chapter describes the methodology used. This includes the design, philosophical base, the population and sampling methods used, data collection methods and instruments, data analysis methods, measures to boost validity and reliability and ethical considerations.

The study results are presented in two chapters. Chapter Five presents the results that address the first and second research objectives. These relate to agricultural SMME owners' level of awareness of the types of agricultural SMME financing sources and instruments available, the sources mostly used, affordability, the challenges faced when sourcing funding and life-cycle funding.

Chapter six presents results that address the other two research objectives. These relate to the appropriateness of agricultural SMME life-cycle financing pattern in addressing the key life-cycle stage problems and the owners' knowledge of best practices in agricultural SMME life-cycle financing. In the last chapter, the study is summarized and the main conclusions are outlined with a proposed agricultural SMME life-cycle financing framework presented. The contributions of the study, policy implications and recommendations for further studies are highlighted with regards to improving financing of agricultural SMME sector in Zimbabwe.

CHAPTER TWO: THE AGRICULTURAL SMME SECTOR IN ZIMBABWE

2.1 Introduction

This chapter discusses the historical contribution of small-scale agriculture to the Zimbabwean economy. It reviews the various agricultural policies that have been put in place with emphasis on supporting the development of the subsector and agro-industry. Collectively, small-scale agricultural producers and agro-industries make up the agricultural SMMEs (IFC, 2011). The chapter also discusses agrarian reforms implemented and how they facilitated the rise of agricultural SMMEs. It further describes agricultural SMME financing and technical support services provided in the context of both international and national policies. It ends with some highlights on some new developments in agricultural SMME financing and their major determinants and impact on development of agricultural SMMEs in the economy.

2.2 Historical contribution of small-scale agriculture

Agriculture is recognised as one of the key sectors of the economy in Zimbabwe (Mushunje, 2005, Chidzonga, 2010). The economy is essentially agro-based since all the other sectors have strong linkages with agriculture (Government of Zimbabwe, 2013). The agricultural sector is divided mainly into large-scale and small-scale agriculture. The latter is made up of commercial and subsistence farming. Agriculture as a sector is closely connected with the agro-industry which includes agro-processors (processors of farm produce) and agro-dealers (wholesalers, retailers, merchants and brokers (ZimStat, 2019).

The agro-industry plays a very important role in providing markets for farm produce while also ensuring timely supply of farm inputs and other support systems (Echanove, 2017). The successful development of the agricultural sector requires that the agro-industry is developed con to serve as ready markets for agricultural inputs and output. As such, a full consideration of agricultural development requires that the two are treated together including policies that support agriculture from farm to factory to consumer markets. Whilst small-scale agricultural subsector has traditionally contributed significantly to the economy in terms of employment creation, gross domestic product and improvement of livelihoods especially for the rural poor, its role

has become more prominent after the demise of the large-scale commercial agricultural sector since 2000.

The small-scale agricultural sector has always played a pivotal role in the Zimbabwean economy. The largest portion of the population is engaged in agricultural activities contributing to greatest yields and utilizing the largest portion of agricultural land (Echanove,2017). By 2012, small-scale farmers constituted 98 percent of farmers and they utilized 73 percent of agricultural land (Government of Zimbabwe and DFID,2015). Small-scale farmers were responsible for 80 percent of the maize production (Government of Zimbabwe,2012).

The contribution of the small-scale agriculture contrast sharply with those in previous decades dating back to independence in 1980. By 1980, large-scale commercial farmers contributed 14 percent of gross domestic product, 95 percent of all marketed produce and nearly 33 percent of national exports (James,2015). The agricultural sector was largely dominated by the large-scale commercial sector which was well financed through a system inherited from the colonial government (James,2015). Such a system adequately financed the large-scale commercial agriculture, providing funding for infrastructure development, inputs and farm subsidies which created a flourishing subsector (Mushunje 2005).

Inasmuch as large-scale commercial agriculture contributed the greater portion to agricultural output, the small-scale sector chipped in particularly to the output of the main cereal crops such as maize, sorghum and millet (Bomani,Fields and Derera,2015).The output for these crops came largely from the rural economy which was not well integrated into commercial agriculture except for some limited sales through the Grain Marketing Board (GMB).Production in the small-scale agricultural sector was therefore mainly for subsistence by the rural poor whose livelihood depended on it (World Bank, 2016).

The importance of the small-scale agricultural sector was, for two decades after independence, overshadowed by the large-scale commercial agriculture which anchored economic growth through strong linkages with the agro-industries and other sectors. The strong performance of the large-scale sector masked the dichotomous nature of the Zimbabwe agricultural sector (Echanove,2017). Up to the onset of the fast-track land reform programme (FTLRP) which resulted in the demise of large-scale

commercial agriculture, the need for strong support for the small-scale agricultural subsector had not been seriously taken into account (Scoones, Marongwe, Mavedzenge, Murimbarimba, Sukume and Mahenehene, 2011). Statistically however, the largest section of farmers in Zimbabwe has always been small-scale farmers. The drastic decline in the large-scale commercial agriculture as a result of the FTLRP has exposed the need to urgently support small-scale agriculture and related industries so that they close the output gap left by the disappearing larger subsector.

Whilst statistics show that this small-scale subsector is now the largest contributor to national agricultural output, a sad part is that, overall output declined markedly especially in the first decade after the introduction of the FTLRP (James, 2015). Some of the reasons cited for the poor contribution by the new small-scale farmers are poorly conceived land reform policies, inadequate funding and skills among the farmers who took over previously large-scale white-owned farms (Echanove, 2017). These were compounded by limited capacity to raise enough capital for infrastructure development, maintenance of equipment as well as mitigating the effects of climate change.



Government now pins its hope on the rapid development of the small-scale agricultural subsector so that it plugs the output, employment and even export gaps created by the large-scale commercial subsector. To achieve that, the government has also realised that concerted efforts have to be made to revamp agricultural policy and support systems targeted at small-scale farmers and agro-industrial players.

The massive gap in support systems for this subsector has meant that government has to replicate the support structures and systems that large-scale commercial farmers benefitted from. This, even up to now, has resulted from realising that on their own, small-scale farmers and agro-industries face debilitating challenges in their quest to supplant large-scale commercial agriculture. They face several limitations in accessing and using suitable funding, inputs and markets (ZAS, 2017). A raft of policies has been developed to support the development of small-scale agriculture and related industries so that they fulfil their new role as the main lever for resuscitating commercial agriculture in Zimbabwe.

2.3 Small-scale agricultural policy and sector support

Whilst a number of agricultural policies have been developed prior to 2000, more sustained policy changes have focused mainly on policy frameworks to grow Zimbabwe's small-scale agriculture subsector so as to supplant the previously white-dominated large-scale commercial agriculture. Most of these policies have been developed in the broader context of agricultural sector policies (Echanove, 2017; James, 2015) and in some cases as part of broader economic reforms and international commitments. This approach to policy reforms acknowledges the intricate linkages between agriculture and the other sectors of the economy as well as the historically acknowledged position of Zimbabwe as once being the "breadbasket of Southern Africa".

The policy regimes may be categorized as falling under international commitments, national development policies and institutional reform policies (Echanove, 2017; Mutami, 2015). International commitments relate to the commitments that come from Zimbabwe's membership of the international community. These bind the country to make certain undertakings to reform the agricultural sector and meet certain goals and targets as benchmarks for sector development and contribution to the national economy.

National policies are policies that promote the attainment of agricultural sector goals and realisation of their impact on national goals. Institutional policies guide the institutional arrangements that drive the growth of the agricultural sector. In Zimbabwe, given the drive to resuscitate the agricultural sector through boosting small-scale agricultural, almost all the policies and reforms are more geared towards the small-scale sector that requires greater support. Some key policies under each of the three categories are outlined below with an overall assessment of their implementation and impact done at the end.

2.3.1 International policy commitments to agricultural development

As part of the United Nations System, Zimbabwe subscribes to the UN 2015 Sustainable Development Goals (SDGs), among them, the commitment to eradicate hunger by 2030 (Echanove, 2017). This commitment binds the country to put in place measures to ensure that agriculture is fully supported so as to reduce the incidences

of hunger and poverty among the citizens. Thus, efforts to resuscitate and increase agricultural output in Zimbabwe are also against the background of UN periodic reviews of the country's steps towards meeting the sustainable development goals with special focus on eradicating hunger.

Another international policy commitment is within the framework of African Union's Comprehensive Africa Agriculture Development Program (CAADP) initiated in 2003. The CAADP compact is an African policy initiative spearheaded by the African Union and which Zimbabwe signed (World Bank, 2019). By signing, Zimbabwe adopted the core principles of pursuing an average of 6 percent annual agricultural sector growth at country level and allocating 10 percent of the national budget to agricultural development. Zimbabwe signed the CAADP Compact in 2013 (Echanove, 2017). Zimbabwe further adopted the Malabo Declaration in 2014 which gave further impetus to the Program with additional targets for the African Agriculture for 2025. These targets include ending hunger in Africa by pursuing agriculture-led growth, enhanced investment finance to agriculture, achieving sustainable and reliable production, improving access to quality and affordable inputs for crops and livestock and halving the levels of Post-Harvest Losses, by the year 2025 (African Union, 2014).

Within the Southern African Development Community (SADC), Zimbabwe assented to the Regional Agricultural Policy (RAP). This policy aims to guide efforts to harmonize sustainable agricultural development and financing, promote marketing and trade among SADC member States (SADC, 2011) It acknowledges the limited budget allocations and donor-aid flows in support of food security and poverty reduction in the region where about 70 percent of the population depends on agriculture. Agreeing to the policy means that Zimbabwe has to boost its agricultural output in order to participate and contribute meaningfully to regional trade. Such participation is not possible with a poorly performing small-scale agricultural sector, which has become the major contributor to agricultural output. The RAP policy priorities acknowledge the importance of an adequately funded small-scale agricultural sector as the basis for developing agriculture in the region (SADC,2011).

Given the controversy around the implementation of the FTLRP and the treatment of international property rights, Zimbabwe is yet to indicate whether it will agree to the Voluntary Guidelines on the Responsible Governance of Land Tenure endorsed by

the Committee on World Food Security in 2012 (Echanove,2017). These guidelines spell out responsible safeguards for investments in agriculture lands. The above policies show that the programmed resuscitation of Zimbabwean agriculture is no longer only a national issue but something that concerns other parties internationally.

2.3.2 Main national policies supporting agriculture

Several national policy frameworks have been developed within the context of driving small-scale agriculture to resuscitate the agricultural sector and anchor economic recovery. A key evidence of the need to decisively support agricultural sector recovery is The 2013 Constitution of Zimbabwe. The new national constitution prescribes that the State must encourage people to be food self-sufficient, secure and to maintain high nutrition levels (Echanove,2017; Bomani, Fields and Derera,2014).

Another policy supporting agriculture development is the Zimbabwe Agenda for Sustainable Socio-economic Transformation (ZimAsset). This policy document was developed as a five-year policy plan. One of the four pillars of this policy document is food and nutrition security (Government of Zimbabwe, 2013). The policy document set out guidelines to improve food security. This was to be achieved through increased crop and livestock production and marketing, infrastructure development, environmental management, protection and conservation, nutrition and policy and legislation' (Mutami,2015).

Running concurrently with ZimAsset was the Zimbabwe Agriculture Investment Plan (ZAIP) 2013-2018. This plan was guided by the principles of the CAADP aimed at strengthening the performance of the agriculture sector by boosting sustainable increase in production, productivity and competitiveness (Echanove, 2017). The Table 2.1 below shows selected ZAIP indicators by 2016.

Table 2.1: ZAIP Indicators by 2016

50% of the farmers obtained land title deeds
50% land under sustainable land management
50% of farmers' access to market infrastructure
50% of farmers have access to finance
100% farmers cover by input voucher system
175,000 hectares under irrigation

Source: Echanove (2013)

Yet another policy approved in 2013 is the Food and Nutrition Security Policy (FNSP). This came as a very comprehensive and well-drafted policy framework geared towards actively engaging the local communities and promoting the right for food (Food and Nutrition Council, 2013). While the document focused on nutrition, its close links with the promotion of agricultural sector development are clear.

The Government also crafted the Zimbabwe Comprehensive Agricultural Policy Framework for 2012 to 2032) around the same time as the short-term policy statements. However, this covers a longer planning horizon. To date, it remains Zimbabwe's main long term agricultural development policy. The key objectives of the policy are to assure household food and nutrition security, ensure agricultural resource-base is maintained, generate income and employment, increase agriculture's contribution to GDP, increase the provision of home-grown agricultural raw materials and expand contribution to exports (Government of Zimbabwe,2012). It recognises the agriculture's potential for boosting national prosperity, increasing trade competitiveness, food and nutrition security and the role of women in agriculture.

2.3.3 Institutional set up for agricultural sector support

As part of the policy framework for reform, the institutional set up for supporting agricultural development has gone through several transformations. This set up includes the parent ministry, parastatals linked to agricultural development, agricultural training colleges, research centres, Inter-Ministerial Thematic information sharing clusters or committees, development finance and donor co-ordination framework, farmer and worker organisations (Government of Zimbabwe, 2013). The responsible ministry has been restructured several times since 2000 owing to the government's desire to strengthen implementation of the land reform. The resultant splinter ministries such as Ministry of Agricultural Mechanisation and Infrastructure development and Ministry of Lands and Rural Resettlement have been being set up to build capacity for quick turnaround in agriculture. Similar changes have taken place in the ministries dealing with forestry, water, environment and climate.

Under its various guises, the parent ministry has been tasked to provide technical, extension, advisory, regulatory, and administrative services to the agricultural sector to achieve food security and economic development. These have been provided

through either ministry departments or through parastatals set up to effectively provide such services with some degree of autonomy. Key departments include Agricultural, Technical and Extension Services, Agricultural Economics and Markets and the Research and Specialist Services (ZAS,2018). Table 2.2 shows the main parastatals and state enterprises that are under the parent ministry and are responsible for developing agriculture in Zimbabwe.

Table.2.2: Key agricultural parastatals and state enterprises in Zimbabwe

Entity	Responsibility
Agricultural Development Bank (Agribank)	Provision of agricultural finance
Agricultural and Rural Development Authority (ARDA)	Development of Farm infrastructure
Agricultural Research Council (ARC)	Provision of Improved agricultural knowledge and technology
Agricultural Marketing Authority (AMA)	Co-ordinating marketing of Agricultural produce
Agricultural Rural Extension Services (AREX)	Provision of education and training support to rural farmers

Source: ZAS (2018)

In addition to departments and parastatals, several agricultural training colleges and research centres have been set up to train farmers in farming best practices as well as undertake research to develop new farming methods, crop varieties and animal breeds that suit the Zimbabwe farming environment. The main dedicated agricultural colleges include Kushinga-Phikelela, Gwebi College of Agriculture, Mlezu College, Chibero College of Agriculture, the Forestry Industry Training College, Gwanda College of Agriculture, Esigodini college of Agriculture. These were set up to offer certificates and diplomas in agriculture.

Several universities also have agricultural faculties that offer degrees in a wide range of agricultural disciplines. Such universities include University of Zimbabwe, Marondera University of Agriculture, Lupane State University, Bindura University of Science Education and National University of Science. Whilst the colleges train farmers in a number of agricultural sub-disciplines, some of the research institutes are specialised, focusing on a particular crop or livestock. These include Henderson Research Station, Cotton Research Institute, Horticultural Research centre, Coffee research centre and The Pig Industry Board.

Other key institutional arrangements are farmer organisations such as the Zimbabwe Agricultural Society (ZAS), Zimbabwe Farmers' Union (ZFU), Zimbabwe Commercial Farmers' Union (ZCFU) and Tobacco Growers' Association. In fact, almost of the various agricultural activities have an association or union that represents the interests of entrepreneurs involved. The representation is heavily involved with policy advocacy, training of members, lobbying government and financiers to address the problems affecting the development of each subsector. In addition to these set ups, there are other arrangements such as donor co-ordination forum and thematic clusters put in place to address information sharing needs and harmonisation of donor and agricultural development activities.

2.3.4 The impact of policies and institutional support structures

Whilst the policies and institutional arrangements put in place are generally applauded on paper as well articulated and structured, it is the implementation and monitoring that compromise the desired impact in supporting agriculture in Zimbabwe (James, 2015; Echanove, 2017). The impact of all the policies and set-ups outlined above has been very weak (Scoones et al., 2011). The key areas of weakness that have been identified as severely compromising agricultural sector support and development include government institutional capacity and participation, budgetary commitments to funding policy targets, government consultative process, support for agricultural subsectors, funds disbursements, donor co-ordination, promotion of small-scale farmer access to land, land property rights, farm inputs and equipment.

With respect to government participation in policy implementation, government is part of all the different forums, thematic groups and other arrangements put in place (James, 2015; Echanove, 2017). However, it has been observed as doing consultation purposes only rather than fully engaging partners in implementing, monitoring and taking corrective actions to achieve policy and institutional targets necessary to improve agricultural performance (African Center for Biodiversity, 2015). A key indicator of the institutional weakness is the non-production of implementation progress reports for all the committees, forums and working groups set up to push the implementation of policy targets. As a result, the facilitative tasks are not effectively carried out in the manner anticipated in the policy documents.

Where consultations are done with regards to implementation of policy reforms, some accusations of biased consultations have been levelled against the government. For instance, development partners such as the United States Agency for International Development (USAID) have encouraged government engage in broad-based consultations. The government has been seen to consult only the main farmer organisations (CFU and ZCFU) representing larger-scale farmers and agribusinesses leaving out small-scale farmers (USAID, 2015). The Zimbabwe Farmers Union (ZFU), a small-scale farmers' associations with estimated membership of over 1 million, relies on government and donor support (Echanove, 2017). However, it exerts less influence on policy implementation as compared to the other Unions.

Another key area that has exposed weaknesses in policy implementation is the persisting disparity between budgetary commitments and actual expenditures in support of the policy frameworks. In the early years of the FTLRP, between 10% and 15% of the state annual budget was allocated to finance agriculture. However, the figure consistently fell to levels between 3.8% and 5.3% (World Bank, 2019), far lower than the Maputo Declaration of 10 per cent. Echanove (2017) observed that the 2016 agriculture budget was 36% less than in 2012. The actual expenditure outturns also fell short of these lower targets owing to funding challenges. Figure 2.1 shows Zimbabwe's annual expenditure on agricultural between 2011 and 2016 with estimates for 2017, the period coinciding with the development of the policies outlined above.

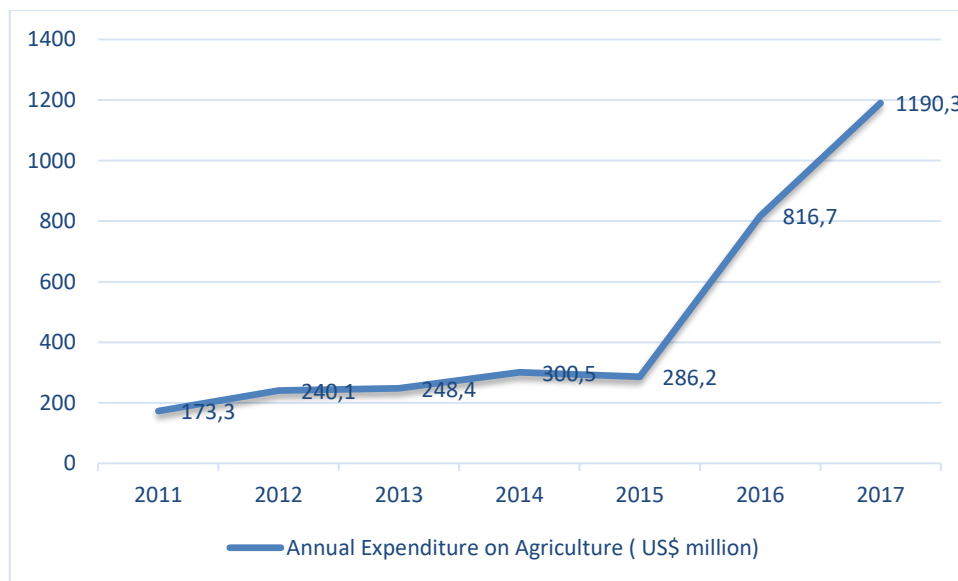


Figure 2.1: Annual expenditure on Agricultural (US\$ Million):2011-2017
 Source: World Bank (2019)

The trend shows marginal changes in budget allocations up to 2015. The marked increase in expenditure after 2015 is attributed to the Command Agriculture Programme and not through direct fiscal budget allocations. This Programme has exposed the government's weak public agricultural expenditure as expenditure outturns consistently exceed budget due to pressure from the programme (World Bank, 2019). As such government's budgeted expenditure has not deviated from its main trend since 2011. Table 2.3 shows Zimbabwe's agriculture funding performance in relation to the regional target set for agricultural funding from the national budget as provided in the African Union (AU) CAADP Declaration.

Table 2.3: Zimbabwe's Agriculture funding performance in terms of AU's Malabo Declaration
Percent (%) of Annual Gross Domestic Product spend on Agriculture

Year	2011	2012	2013	2014	2015	2016	2017
Total Public expenditure on Agriculture	1.2	1.4	1.3	1.5	1.4	3.9	5.6
Funding from National Budget	1.0	1.2	1.0	1.2	0.9	3.7	5.4
Funding from Retention Funds	0.1	0.1	0.1	0.1	0.1	0.1	0.1
From External Partners	0.1	0.1	0.2	0.3	0.4	0.1	0.1

Source: World Bank (2019)

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From 2011, total public expenditure remained under 2 percent of Gross Domestic Product until 2016 when the pressures from Command agriculture pushed it to 3.9 percent with an estimated 5.6 percent for 2017. As shown in the Table, direct funding from the fiscus consistently fell short of the CAADP target of 10 percent. Funding from statutory retention funds in parastatals and research organisations as well as external development partners has also remained weak.

2.3.5 The small-scale farmers and agro-industries in the policy priorities

Given that the key thrust of agricultural policies is to boost agricultural production and productivity, one observation made by Richard, Lata and Groce (2014) is that quite often lip-service is given towards capacitation of small businesses. While policy documents recognise the importance of their role, they do not indicate the specific production targets and quantum of support needed. As a result, there has been

minimal impact of policy implementation on the small-scale farmers in the Zimbabwean context. This has negatively affected improving access to land, securing land property rights (Chidzonga, 2016), improving access to proper and adequate funding, inputs and infrastructure such as irrigation (Richard et al.,2014), farm implements (Mukwereza, 2015) and access to markets and price stabilisation.

The extension services objectives that feature prominently in the policy documents commit government to playing a vital role in promoting an active and demand- driven agricultural education and farmer training system. They further bind government to promote synergies among the various education and training institutions outlined above so as to boost the capacities of farmers and agri-business owners. Contrary to these aspirations, the reality is that the institutions are under-staffed (Mushunje, 2005) and lack capacity to meet the training and capacity building needs of the small-scale farmers and agribusiness owners (Echanove, 2017).

A large number of new farmers are in need of training as they lack previous agricultural training and business finance education. Existing extension workers each attend to large numbers of new farmers and walking long distances (SNV, 2015). Majority of them are now sent by local charitable organisations to assist the small-scale farmers in the remote areas. This has led to large numbers of small-scale farmers not accessing knowledge and new technologies necessary for enhancing output, though a few now access advice online using mobile phones ((Thomson Reuters Foundation, 2020).

The agricultural development policies have also had limited impact on key areas such as research and access to water and energy resources (Echanove, 2017). With respect to research which is central to improving approaches to managing farms as businesses, the relevant institutes have not been capacitated and have actually suffered budget cuts and brain drain.

The policies have not led to significant improvement in access to water through improved irrigation systems to mitigate the effects of climate change among the new small- scale farmers. The World Bank (2019) has also observed that Zimbabwe is one of the Sub-Saharan countries that is lagging behind in terms of the AU's Khartoum Declaration on improving investment in agricultural research, knowledge and

Information systems (AKIS) (World Bank,2019). Higher investments have positive spill over benefits to small-scale agriculture through adoption of improved methods of farming. The Khartoum Declaration set a target of 1 percent of GDP for agriculture research funding for member states.

On access to markets, the linkages with agro-processors and dealers have not been adequately supported, leaving farmers struggling for secure markets with stable prices for farm inputs. Price controls have not helped profitability of farming as operating costs escalate due to worsening economic crisis. The government has often acknowledged its failure to adequately finance the achievement of policy targets. As a result, through Budget Policy Statements, it has called for the private sector to offer contract farming financing arrangements to small-scale farmers and agri-businesses (Ministry of Finance, 2018).

2.4 The agrarian reforms and agricultural development

According to analysts, the government's land reform programme and the subsequent collapse of the agricultural sector are seen as the prime causes of the prolonged economic crisis (Scoones et al.,2011). The FTLRP that gained momentum in 2000 was aimed at redressing historical imbalances in the land ownership between whites and black populations in the country. Prior to the fast-track program, about 4 500 white commercial farmers occupied about 16 million hectares of arable land while the majority blacks were confined to the marginal and unproductive areas (Scoones.et al,2011). Through the programme, government therefore wanted to improve the equitable distribution of land between whites and blacks. Table 2.4 shows land redistributed by 2010.

Table 2.4: Changes in the national distribution of land (1980-2010)

Land Category	1980	2000	2010
	Area (million) hectares	Area (million) hectares	Area (million) hectares
Communal Areas	16.4	16.4	16.4
Old Resettlement	0.0	3.5	4.1
New Resettlement A1.	0.0	0.0	3.5
New Resettlement A2	0.0	0.0	1.4

Small-scale commercial farms	1.4	1.4	1.4
Large scale commercial farms	15.5	11.7	3.4
State farms	0.5	0.7	0.7
Urban lands	0.2	0.3	0.3
National Parks and forest land	5.1	5.1	5.1
Unallocated land	0.0	0.0	0.7

Source: African Institute of Agrarian Studies, in Scoones et al., (2011)

The programme however delivered mixed results (Scoones et al 2011; James,2015). It resulted in increased access to land by black small-scale farmers. This further improved, to some extent, their livelihoods. The downside however is that in many instances, it led to total displacement of the productive white large-scale commercial farmers. These were replaced by ill-equipped and inexperienced black small-scale farmers and fragmented marketing systems requiring close co-ordination and regular funding (Malaba, 2014).



Majority of the black farmers operated at subsistence level (Malaba,2014; Mutami,2015). The programme thus presented a number of challenges since the government urgently needed to capacitate the ministry responsible for agriculture in terms of human, material, and financial resources to carry out land information management, land auditing, and general farm inspections. It also had to capacitate the new black farmers so that they could increase total agricultural production to at least the levels reached by the previous white commercial farmers.

The challenges have not been fully addressed two decades after the introduction of the programme. The demands for support for the small-scale farmers in the resettled areas are mounting. The politicisation of the FTLRP, the limited budgetary provisions and corruption in the implementation and management programme are attributable to failure to address the lingering capacity challenges for black small-scale farmers (James,2015). Resolving these weaknesses in the programme implementation could take the level of financial and technical support at least to the same level as those in the pre-independence era.

2.4.1 Economic empowerment policy and the rise of agricultural SMMEs

The policy of economic indigenization was introduced as a framework for the transfer of economic resources into the hands of the indigenous population (Magadza, 2009). Prior to this move, there had been simmering discontent at the economic marginalization of the majority of the indigenous people with most of the economic resources in the hands of foreign ownership. This skewed ownership pattern was pervasive in the economy covering agricultural, mining, tourism, and other property resources sectors. Therefore, the indigenization policy was aimed at redressing historical imbalances especially in land ownership since all the other economic sectors are based on land ownership (Brightface Enterprises, 2014).

The Black economic empowerment programme was a twin policy initiative of indigenisation drive. This was targeted at boosting the economic participation of the indigenous black population, against the background of being confined to the periphery of mainstream economic activities. The key premise of this programme was that blacks could not participate actively in the mainstream economy since they did not own the means of production in a country in which they were natives.

Initially, the economic empowerment drive did not affect the agricultural sector up until the introduction of the Fast-track Land reform and redistribution in 1999. The fast track-land reform and redistribution policy became the cornerstone for achievement of broad black economic empowerment as previously white-owned mainly agricultural land were targeted for transfer and redistribution to black people. Therefore, the fast-track land redistribution expedited the implementation of economic indigenization and black economic empowerment (James, 2015).

A key objective of the FTLRP was to transfer large pieces of arable land from whites to black farmers in the spirit of fairness in land ownership between majority blacks and minority white populations (Bomani et al., 2015). The programme therefore dovetailed with other related corrective policies and programmes pursued by government. Two of these corrective programmes are the economic indigenization and Black economic empowerment. The FTLRP was therefore a way to achieve the goals of these two programmes though in the context of an intervention through a sector specific approach. It was therefore a one-sector –based approach to achieving the aspirations

of some far broader economic transformation programmes. The close link between the FTLRP on one side and economic indigenization and economic empowerment on the other are therefore evident.

The introduction of each of the two policies was driven by socio-economic and political motivations. Therefore, the effects of the policies may be assessed based on the achievement of the motives (James, 2015). The socio-economic motive was aimed at ensuring that the black indigenous population is able to meaningfully participate and gain from the country's resources as owners of means of production and not simply as employees. The policymakers anticipated that greater economic benefits would accrue to the targeted group through improvement in incomes and boosting their livelihoods. The political motive was aimed at garnering support for the government through implementation of pro-poor policies that also served as means to complete liberation struggle by adding economic emancipation to political freedom (James, 2015).

While the implementation of the policies was regarded officially as a success story (Government of Zimbabwe, 2013), with the total hectares transferred and the number of new black landowners cited as key measures, the policies had some negative impact on economic performance. The transfer of land to black ownership decimated the large-scale commercial farming which was largely white-dominated. This resulted in the reduction in annual agricultural output (Scoones et al, 2011). This unintended effect had a negative knock-on effect on employment in the agricultural sector and gradually in all the other sectors strongly linked to agriculture such as manufacturing, agro-processing, tourism and packaging. As a result, the collapse of large-scale commercial agriculture has had a broad negative effect on the performance of the Zimbabwean economy (Scoones, et al, 2017).

In response to the negative impact of the collapse of commercial agriculture, the government has actively promoted the growth of agricultural SMMEs (James, 2015). Since the negative effect was pervasive, the government promoted SMMEs in all areas of production linked to agriculture in a bid to curtail the output and employment effects in the economy as well as to ensure a holistic approach to resuscitating the sector. Thus, agricultural SMMEs have been promoted as micro, small to medium-scale farming activities directly engaged in agricultural production, agro-processors

engaged in processing agricultural output and agribusinesses buying and selling agricultural chemicals, stock feeds, seed, farm machinery and implements in support of agricultural sector revival.

2.4.2. The importance of agricultural SMMEs development

The promotion of SMMEs in general has been spearheaded against the background of the acknowledged contribution they make to the Zimbabwean economy. They are crucial to the attainment of key development objectives such as poverty reduction, increased national employment, and growth in gross domestic product, increased indigenous ownership of economic resources and driving economic innovation (Bomani, Fields and Derera, 2015). Through their productive activities, SMMEs in Zimbabwe contribute significantly to national output. With a large section of the indigenous population actively engaged in micro, small and medium-scale enterprise activities, it was easy for the government to expect a direct transfer of the same activity level to the agricultural sector through the FTLRP. In any case, small-scale farmers and their counterparts in the agro-industry make up the SMMEs engaged in agriculture and related activities.

The government therefore encouraged the small-scale farmers, particularly those who were engaged in subsistence agriculture to transform and adopt an entrepreneurial approach, thus participating in the economy as commercial farmers. That way, they were expected to contribute more to the resuscitation of the agricultural sector than as mere peasant farmers. As SMMEs as opposed to peasant farmers, the small-scale farmers as beneficiaries of economic indigenization and economic empowerment drive were expected to generate faster growth with positive spin-off effect on economic growth and development. However, the development of agricultural SMMEs and their projected economic contribution to growth, employment creation and economic development as envisaged by policy makers has not been realised due to the existence of some key obstacles. Some of the main barriers are discussed below.

2.4.3 Constraints faced by agricultural SMME owners

The development of agricultural SMMEs in Zimbabwe is generally constrained by numerous barriers. The main obstacles that have been cited may be categorised as

related to funding constraints, management skills, infrastructure challenges and regulatory barriers (James, 2015). The limited access to adequate external financing is the most cited amongst all the challenges that agricultural SMMEs face. This barrier is especially a major one in the early stages of business development as there is an acute shortage of funding for green-field projects with no trading history.

Banks and other private financiers operate in a difficult environment which limits their ability to extend credit to small-scale farmers and owners of newly established small-scale agri-businesses (Mushunje, 2005). This is compounded by the withdrawal of international financiers as a result of being owed by Zimbabwean government and other local debtors (Mushunje, 2005; James, 2015). The factors influencing supply and demand for financing are discussed in section 2.6 below.

The lack of management skills is another major barrier faced by the new crop of entrepreneurs. The skills gap exists in virtually all the areas of managing a new business (research and business planning, sourcing of finance, operating and ensuring survival including forecasting trends, marketing knowledge and skills (Echanove,2017). For most of the small-scale-farmers and new agri-business owners, the lack of management skills is not surprising as they have no prior formal business management training (James, 2015; Government of Zimbabwe, 2013) They entered into the business of farming, buying and processing farm produce as well as supplying farm inputs and implements mainly in response to the indigenization and economic empowerment drive.

The lack of research capacity affects the new entrepreneurs' ability to undertake feasibility and viability assessments which are necessary for business planning purposes. Persistent low level of productivity and annual harvest have been linked to the lack of capacity for research, worsened by the scarcity of agricultural extension services needed to support crops, livestock, farm mechanization, water resources and irrigation development.

A lack of access to infrastructure has also emerged as one of the major barriers to the growth of small-scale agriculture (Mushunje, 2005). Dilapidated infrastructure in previously white owned farms and inability by the new owners to replace it has emerged as a major obstacle to more meaningful contribution to the objectives of the FTLRP (African Centre for Biodiversity,2015). Massive investments are needed in

infrastructure if agricultural production and productivity are to increase as desired. The lack of good infrastructure also hampers storage, transportation and marketing of farm produce (James, 2013; Scoones, et al. 2010).

Weak implementation of government policies and regulatory mechanisms has resulted in the small-scale farmers and small-scale agro-industry players failing to realise their potential. Government has not lived up to expectations regarding ensuring the full implementation of all the support policies and regulations. For instance, the new entrepreneurs have not fully benefited from input schemes and access to land as promised as a result of corrupt activities in the provision of support services (Mutami,2015; James,2015).

2.5 Agricultural SMME financing and technical support

When all the challenges faced by agricultural SMMEs are considered together, it can be observed that they are all subsumed in the biggest challenge of lack of suitable and adequate financing (James, 2015). Agricultural SMME financing is financing that is targeted at small-scale farmers engaged in agricultural production and small-scale enterprises engaged in agricultural related activities such as the processing of agricultural produce and supply of agricultural inputs and implements (IFC,2011).

This funding is important since it does not support only the small-scale farmers. It goes beyond to ensure that immediate upstream activities are catered for. Its provision recognises that the success of farming depends on the existence of an agro-industry that buys the farm output and provides the requisite inputs and implements. Therefore, this financing takes a holistic approach to supporting the development of small-scale farming. A key aspect of technical support linked to financing is the provision of financial advisory services which ensure that small-scale farmers and agri-business owners source and use suitable types of funding instruments (James, 2015)

With suitable and adequate funding, most if not all of the problems faced by the new entrants can be resolved easily. Evidence supporting this assertion may be drawn from the success of white commercial farmers prior to the FTLRP. Besides benefiting from the existence of a very strong institutional support structure, white commercial farmers enjoyed cordial relations with the financial sector which provided massive financial

support. A major reason for this drive to support the key sector was for the country to attain food security and also bust the international sanctions imposed on the colonial government after it unilaterally declared independence from Britain in 1965 (Bomani, Fields and Derera,2015).

The support came in the form of targeted concessionary funding and government guarantees. The guarantees enabled the farmers to borrow to address all their critical farming requirements such as funding crop and animal research, infrastructure and marketing development. This level of funding support is not being received by the majority of the new small-scale farmers and agro-industry players (Karedza, Sikwila and Mpofu,2014). This is despite the fact that they are expected to increase production and productivity to nearly the same levels as their predecessors in the farms taken over (James,2015; Karedza et al,2014).

The main reasons are the loopholes in the selection and targeting of beneficiaries as most of those who are left out cite political patronage especially in inputs distribution. The implementation of the smart-subsidies and other schemes such as the Presidential input schemes should ensure a proper selection and targeting of the deserving group, the small scale farmers and agro-dealers. The successful development of the sector depends on the new farmers and agri-business owners securing adequate funding for inputs and infrastructure.

The inadequate actual financing arrangements that agricultural SMMEs are exposed to (despite positive policy pronouncements) have been cited as the most important obstacle to SMME development in Zimbabwe (Scoones et al,2010). Government promotion of agricultural SMMEs has to be done together with the promotion of appropriate financing for the desired effect to be realised. One of the key strength of large-scale white commercial agriculture was its strong connection with the financing institutions as well as the deliberate approach by the then government to actively provide guarantees for borrowing by the farmers to develop agriculture. This is not the case with the small-scale farmers that have been given land because of the contested nature of their property rights to land, which funders consider as essential collateral security. In addition, the government is unable to provide sufficient guarantees to farmers as it is hamstrung by budget constraints coupled by it weak borrowing position owing to large external debt arrears. Domestically, weak revenue performances due

to a poorly performing revenue base have left the government without much fiscal space to accommodate large-scale support for the growing small-scale agricultural sector (World Bank,2019).

As a result of the connection, the previous landholders had easy access to finance and this was further anchored by the tradability of their land rights. This tradability meant that they could easily use land as collateral security to access external funding. Hence, the re-distribution of land needed to be supported by availability of SMME finance as well as securing land rights and tradability of land property as collateral security. Furthermore, there was need to ensure easier access and use of funding options by the new entrepreneurs (Karedza et al., 2014). The challenges linked to financing small-scale farming and activities of small-scale agro-dealers and processors are persisting. Agricultural SMMEs therefore suffer from a funding gap which limits their development.

2.5 1 Supply of finance for agricultural SMMEs

Financing for agricultural SMMEs is mainly drawn from internal and external sources. Relatively well resourced small-scale farmers, agro-dealers and processors draw from internal funds. These come from own savings, profits and support from family and friends. Typically, these funds are obtained without any interest obligations and in some cases the need for reimbursement. External funding is largely drawn from banks and micro-financiers in the form of traditional loans, leasing and order financing facilities, facilities offered by government and donors engaged in supporting small-scale agriculture (Mutami,2015). Of late, many small-scale farmers have benefited from resurgence in contract farming as a source of input finance and the guarantee for secure markets for the produce (ZAS,2019).

The key reasons for agricultural SMME funding being the biggest hurdle in growing the subsector are linked to availability, affordability, suitability of finance on the market and the owners' level of knowledge of funding (Brightface Enterprises, 2014). With respect to availability, there is limited funding available from all sources for funding agricultural SMMEs in Zimbabwe. While a number of specific reasons have been cited for the limited availability, the general reason is the economic crisis that affects all possible sources. The economic crisis which has persisted for over two decades also

negatively impacts affordability and limits the funding options provided. The limited knowledge that agricultural SMMEs have about financing instruments limits them from advocating for increased supply of well-structured funding instruments that meet the needs of their businesses.

2.5.2 Factors limiting supply of agricultural SMME finance

Whilst several factors conspire to limit supply of agricultural SMMEs in Zimbabwe, the major ones that have often been cited are the perceived high risk profile of agricultural SMMEs (insufficient administrative and managerial capacity of SMMEs); the high cost of micro-financing; interest rate controls; lack of information about the SMMEs' business future prospects; capital adequacy requirements, lack of sufficient collateral security, withdrawal of donors and international development financiers, and weak budgetary provisions for agricultural SMMEs (ZAS,2018).

With availability of funding, the withdrawal of international development financing has tightened supply of funding for development including for agricultural SMMEs. This withdrawal is linked to Zimbabwe's poor repayment record and accumulation of international debt arrears (Reserve Bank of Zimbabwe, 2018; Ministry of Finance, 2018). As a result, local banks are not able to borrow for on-lending to productive sectors. The banks are further limited by the need to comply with rising capital adequacy thresholds as the Reserve Bank sought to protect depositors in a highly inflationary environment and generally keep banks within prudential banking thresholds. As such, supply of finance to agricultural SMMEs (considered as a risky portfolio) suffers greatly. The high risk profile attached is a result of the characteristic lack of sound administrative and managerial capacity and opacity with regards to business prospects.

While engagements are on-going regarding the tradability of land rights within the context of the 99- year lease and offer letters that the new small-scale farmers hold, this has been a cause for limited funding by banks and micro-financiers for two decades. The loss of the farms that the banks had previously accepted as collateral (by white farmers), but which have new owners under the FTLRP, means that financial institutions are generally unwilling, and often unable, to lend to those who have taken over the former commercial farms.

Micro-financiers find lending to the small-scale farmers and agro-businesses unattractive given that they are not free to determine the interest rate on loans. As a measure to ensure that the new agricultural sector entrants are able to access finance, the government has often put interest rate caps to prevent the cost of financing small-scale agriculture and related activities from escalating and scupper the FTLRP.

Globally, several measures however are being pursued to ensure that supply of funding to the agricultural SMMEs increases (OECD, 2015). In Zimbabwe, the major challenge is that government as the lead agency in promoting increase in supply of agricultural SMME funding, has not been particularly strong in implementing the necessary support measures. This is evident in the review of agricultural SMME policy and institutional support discussed earlier. The measures that have been identified as necessary to boost supply of finance include public-private sharing of funding risks and developing synergies among financiers, sharing knowledge from the experiences of development partners and from global best practices, creating a centralised information and credit registry on agricultural SMME funding and enhancing entrepreneurship culture among the SMME owners (OECD., 2018).

2.5.3 The demand for agricultural SMME financing

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Globally, efforts are being made to promote the uptake of diversified set of financial sources and instruments and technical support (OECD, 2018). In Zimbabwe, inasmuch as the supply of funding is severely constrained, the demand for external funding plays an important role in supplementing internal funding. Internal funding is not adequate given that most of the small-scale farmers and agri-business owners have limited savings. Their incomes are shared among several competing uses including family demands to the extent that often very limited investible funds are available (Food and Nutrition Council, 2013). As a result, despite the challenges associated with sourcing and using external funding in a difficult operating environment, agricultural SMMEs can still benefit especially through boosting funding for business stages and operational areas for which internal funding is grossly inadequate.

Several factors affect the demand for use of external funding in support of business activities. Key amongst them are the cost of external borrowing, knowledge of funding

options, knowledge of suitability of funding sources and instruments, existence of programmes on increased demand for new funding methods, bureaucratic approval systems, existence and benefits from venture capital and contract arrangements.

2.5.4 Factors driving demand for agricultural SMME financing

Several factors have been cited as driving the demand for agricultural SMME funding (James, 2015). The majority of small-scale farmers have very limited incomes which are inadequate to finance agricultural activities. Therefore, there is massive demand for external funding for procuring inputs and equipment. Another key determinant of external funding is the expectation of higher incomes from cash crop production. Small-scale farmers engage in the production of cash-crops driven by the expectation to earn more from the sale of the crops. With respect to demand for contract farming financing, farmers are attracted by the supply of inputs as well as the existence of guaranteed markets for the farm produce (James, 2015).

In 2017 and 2018, there has been an increase in global initiatives to boost demand and access to various sources of finance in addition to policy instruments already in place (OECD, 2018). However, major obstacles to demand for agricultural SMME finance still exist. These include unscrupulous lenders (Baumann, 2015), the slow growth in micro-financiers especially in extending credit to the rural areas (Reserve Bank of Zimbabwe, 2015), the lack of transparency about loan costs which frustrate borrowers, pro-poor financing institutions going out of business, the high cost of external borrowing, usurious collateral demands as well as the non-tradability of 99-year leases (Baumann, 2014; African Centre for Biodiversity, 2015). These obstacles force many agricultural SMMEs to resort to self-funding.

2.5.5 Developments in agricultural SMME support

Developments in SMME finance worldwide have been both positive and negative development (OECD, 2018). The differences between positive and negative developments largely emanate from the country contexts. In countries where government provides incentives to financiers, more funding has been made available for SMMEs. As such, policy makers have been encouraged to monitor financial market

developments in order to identify early some possibilities of shortfalls in financing for SMMEs (OECD, 2016).

Some positive developments in SMME financing include the growth in new innovative financing sources and instruments such as online funding technologies, crowd funding, asset-backed financing, peer-to peer lending. Among the developments that have contributed to the decline in SMME finance are high cost of funding SMMEs, increase in bankruptcies and non-performing loans, decline in venture capital finance, inadequate policy responses from government and lack of loan guarantees for SMMEs (Reserve Bank of Zimbabwe,2015; James,2015).

2.6 Chapter Summary

The chapter discussed the historical contribution of agriculture to the Zimbabwean economy. The various agricultural policies put in place to support the development of the sector have been outlined together with their impact on the small-scale agricultural sector. This was followed by a discussion of agrarian reforms aimed at boosting indigenisation and economic empowerment particularly for the majority of the poor. The rise of agricultural SMMEs was then discussed in the context of the two empowerment programmes. For agricultural SMMEs sector to develop smoothly, adequate and appropriate finance and technical services should be availed to the budding entrepreneurs. This includes the supply and demand for agricultural SMME financing and their major determinants as well as the policy developments in light of the important role played by these SMMEs in the economy.

CHAPTER THREE: LITERATURE REVIEW

3.1 Introduction

An understanding of how owners and managers of agricultural SMMEs finance their ventures throughout the venture life-cycles is critical. Such understanding assists to reflect on whether these ventures are adequately and appropriately financed. This further lays the basis for recommending effective financing options to enhance agricultural SMME development. This chapter reviews literature on SMME financing with special focus on agricultural SMME life-cycle financing. The review of literature is organised into sections based on the focus of each of the four research questions underpinning the study.

Section 3.1 reviews the origins of the venture life-cycle concept and its application to business financing. It further discusses new venture development stage failure modes and the necessity for stage-specific financing. The section discusses the importance of venture failure modes as a basis for determining appropriate financing of new ventures. Section 3.2 reviews agricultural financing focusing on the typical sources and instruments available. It discusses the key dynamics in sourcing SMME life-cycle financing. This literature is relevant for the aspects which the first research question focuses on. Section 3.3 discusses the theories on life-cycle financing. The focus is on how financing sources and instruments have been typically used as explained in theory. The literature discusses the extent to which new small-scale venture owners and managers use appropriate financing targeted at smoothing venture progression throughout the life-cycle stages. It discusses literature on financing patterns at critical SMME development stages and reviews the key theories that explain SMME stage-financing patterns.

Section 3.4 provides a summary of the pertinent insights from the literature. These insights formed the basis for the methodology discussed in the next chapter, discussions of the overall research results as well as the conclusions drawn in view of the objectives set out in chapter one. In section 3.5, empirical literature on venture life-cycle financing is discussed. It provides a basis for contextualizing and highlighting the uniqueness and significance of this study.

The reviewed studies are classified in terms of (i) empirical studies on sources of finance for SMMEs, (ii) evidence of SMME life-cycle financing, (iii) suitability of funding and (iv) sustainable financing options based on experiences in success cases worldwide. The suggested financing options could be adopted by owners and managers of agricultural SMMEs to boost sustainable venture development. Each category of empirical literature relates to a particular objective of this study. The empirical literature findings are important in evaluating current agricultural financing practices and patterns in Zimbabwe. Section 3.6 concludes the chapter with a summary of the findings from literature and the gap that is not addressed which forms the basis of this study.

3.2 Approaches to financing agricultural SMMEs

Agricultural SMME finance is a set of financial services dedicated to address the operational needs of SMMEs involved in agricultural production and production-related activities. Small-scale farmers are examples of SMMEs engaged in agricultural production. The SMMEs in agricultural production-related activities are engaged in input supply, wholesaling, processing, marketing and trade (IFC, 2012). The inadequacy of agricultural SMME finance is an important challenge being experienced at a time when these SMMEs are expected to play a vital role in resuscitating the agricultural sector (African Centre for Biodiversity, 2015; 2014). In the global context, agricultural SMME financing gap has been acknowledged as a growing challenge threatening the development of the sector (IFC, 2011, 2012).

In the Zimbabwean context, adequate funding of agricultural SMMEs is necessary to help them plug the supply and employment gaps created by the collapse of large-scale commercial farming since the start of the Fast-track land reform program in 1999 (Government of Zimbabwe, 2012). Adequate finance needs to be available in order to address bottlenecks at critical stages of their development (Karedza, et al, 2014). Beyond the inadequacy of finance on the market, the funding decisions made by agricultural SMME owners have to ensure that the limited finance obtained is used to the best advantage of these important business ventures.

In Zimbabwe, the main suppliers of agricultural SMME finance include microfinance institutions, government through the Small and Medium Enterprises Development

Corporation, various banking institutions through their dedicated SMME banking divisions, non-governmental organizations and local and foreign private investors and creditors (Reserve Bank of Zimbabwe,2015; Malaba, 2014; Government of Zimbabwe,2013).

In addition to the efforts of private financiers, government has also implemented and continued to review policy measures aimed at strengthening financial support offered to agricultural SMMEs. These policies have however tended to focus on removing obstacles to private sector provision of more funding for the sector (Government of Zimbabwe,2012). Despite the efforts of these financiers including providing the various funding mechanisms, others dedicated to the subsector, empirical studies still report the existence of financing gaps and obstacles curtailing availability of financing to the subsector (Karedza, et al,2014).

The acknowledged financing gap constrains new agricultural SMME development (Government of Zimbabwe,2013). This explains the importance of understanding how life-cycle financing as a strategy to boost targeted use of finance. Against the background of limited availability of funding in Zimbabwe, it is important that agricultural SMME owners source funding and use the limited funds effectively. This may be achieved through strategically using the most suitable funding instruments at each stage of the business life-cycle targeted at addressing the most critical challenges.

When deciding on financing a new start-up small business, one of three approaches may be adopted. These approaches are block funding, ad-hoc and sequential life-cycle funding. Each of these approaches differs from the other two in terms of timing, quantum, sourcing, use, the basis and the impact of funding on the specific phases of the business. Each of these is described below including the possibility of fully addressing specific business needs.

3.2.1 Block business funding approach

Block funding of a new start up business involves sourcing funding for a business all at once. Business managers preferring this approach often argue that securing all the necessary funding at once is the best approach for micro and small-scale businesses. The funds can easily be mobilized and it is cheaper in addition to giving comfort in the

sense that once the business is set up and is running, there are no more concerns about having to secure funding (a challenge in its own right). Whilst the temptation in a financially constrained business environment is to consider this as the best approach, it however does not fully take into account the stage-specific nature of appropriate funding. These are better understood as the business owner or manager focuses at each stage once at a time (OECD., 2017).

3.2.2 Ad-hoc funding approach

An ad-hoc funding approach is based on the argument that business requirements are complex and arise anytime to the extent that it is not possible to have a stage-by-stage funding approach. The argument further points out that organisations do not follow any discernible sequential or linear growth pattern. Rather, the growth path is haphazard (O'Farrell and Hitchens, 1988, Parker, 2006), and owners and managers are unable to clearly demarcate the stages and tailor stage-specific interventions. This view of business evolution considers a new venture as evolving in a way that is neither sequential nor easily identifiable (O'Farrell and Hitchens, 1988).

Business managers who adopt this approach therefore source funding as per when a need arises without carefully considering the stage-specific requirements in medium to long-term planning for funding. Resultantly, owners and managers are viewed as making non-stage specific management decisions and haphazardly responding to the pressing challenges. A major challenge with this approach is that it does not lead the business owner or manager to carefully plan for the specific funding requirements throughout the stages so as to enable the selection and usage of suitable funding.

Typically, in financially constrained environments, small business owners and managers react more to the patterns of how and when financiers avail funding on the market than proactively sourcing funding based on their business needs. Such an approach does not seek to actively influence financiers and policymakers to ensure availability of suitable and adequate funding. Business owners resign to fate and only secure funding as and when it is made available to them on the market. Inasmuch as the approach acknowledges the challenges in sourcing suitable funding, it does not lead to the best way to finance agricultural SMMEs in such contexts.

3.2.3 Life-cycle financing approach

In contrast to the above approaches, with a life-cycle financing approach a business owner looks at the specific-stage requirements of a business before deciding on the types of financing sources and instruments to be used. It recognizes the fact that financing requirements vary at each stage of the life-cycle of a business (OECD, 2016). The aim of using this approach is to ensure that the most suitable funding is used at every stage. Effective new venture development and management crucially depends on appreciating the venture life-cycle and the associated dynamics at each stage (Churchill and Lewis, 1983). As such, the specific requisite management and financing interventions depend on a proper understanding of the stage-specific growth problems. The adoption of a venture life-cycle approach to new venture development greatly assists in selecting and focusing of suitable funding (Scott and Bruce, 1987).

A venture life-cycle is a series of stages through which a new business venture may develop over its entire life-span (Mac an Bhaird and Lucey, 2010). The stages reflect the dynamic changes in growth patterns, challenges faced and the requisite interventions to address the venture growth and development challenges (Global Entrepreneurship Institute, 2016). Organisational and management theorists recommending the sequential life-cycle approach have developed several models describing the different forms which the business life-cycles could take with respect to the nature and number of stages (Mac an Bhaird, 2010). Several entrepreneurial life-cycle models have been proposed (Hanks et al., 1993, Duryee, 1994, Gale, 2001, Wang, 2002, Timmons and Spinelli, 2007, Storey, 1994). These are summarized in Table 3.1 with a few described in detail below.

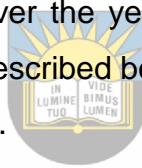
Table 3.1: Summary of selected life-cycle models from literature

Number of stages	Model Proponent(s)	Stages identified	Analytical focus for the model
4	Hanks et al (1993)	Start-up, expansion, maturity and diversification	Entrepreneurial Life-style
	Duryee (1994)	Start-up, high growth, mature, and decline/renewal	Entrepreneurial life-style
	Gale (2001)	Start-up, accelerated growth, maturity, stabilization/decline	Entrepreneurial life-style
5	Greiner (1972)	Creativity, direction, delegation, coordination, collaboration	Organizational behavior
	Churchill and Lewis (1983)	Existence-Survival-Success-Take-off-Resource maturity	Organizational behavior

	Scott and Bruce (1987)	Inception- survival- growth- expansion- maturity	Entrepreneurial life-cycle
	Wang (2002)	Birth, survival, success, decline, renewal	Entrepreneurial Life-style
	Timmons and Spinelli(2007)	Research and development, start-up, high growth, maturity and stability	Entrepreneurial and life-style
	Nadeau (2012)	Development/ seed, start-up, survival, early growth, rapid growth, expansion, maturity, exit stages	Entrepreneurial life-cycle
7	Massey et al. (2006)	Inception- survival- non-growth, low-growth, high-growth phase, expansion- maturity	Entrepreneurial life-cycle

Source: Author's compilation from various sources

The new business venture is viewed as developing in linear progression through identifiable life-cycle stages. Each stage is viewed as characterised by unique challenges. These challenges ultimately require specific financing decisions to address them. Of these sequential life-cycle models, Churchill and Lewis (1983) and Scott and Bruce (1987)'s model are the key sequential models that have drawn both positive and negative criticisms over the years leading to new and more versions. These and two other models are described below to illustrate the conceptualisation of the life-cycle of a business venture.



The Greiner Model

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Greiner's Growth model is one of the early works on organisational development and management even though this could have been influenced by some earlier attempts in economics to conceptualize growth through models such as the Solow and Rostow economic growth models. While these theories focused on economic growth trajectories, Greiner's model explains evolution at an organisational level through specific stages (Greiner, 1972). The model identifies creativity, direction, delegation, coordination and collaboration stages.

The growth of an organization from one stage to the next is viewed as responding to and resolving a series of crises. For instance, the use of direction resolves the crisis of leadership that stops the organisation from benefiting from creativity while delegation is used at the next stage to resolve the crisis of autonomy. When the organisation suffers from the crisis of red-tape, it can grow through effective co-ordination of functions and activities as illustrated in Figure 3.1 below. This model however looked at organisational renewal based on adoption of new organisational

functions and does not specifically bring out the financing aspect which is very important at each stage of development for an organisation.

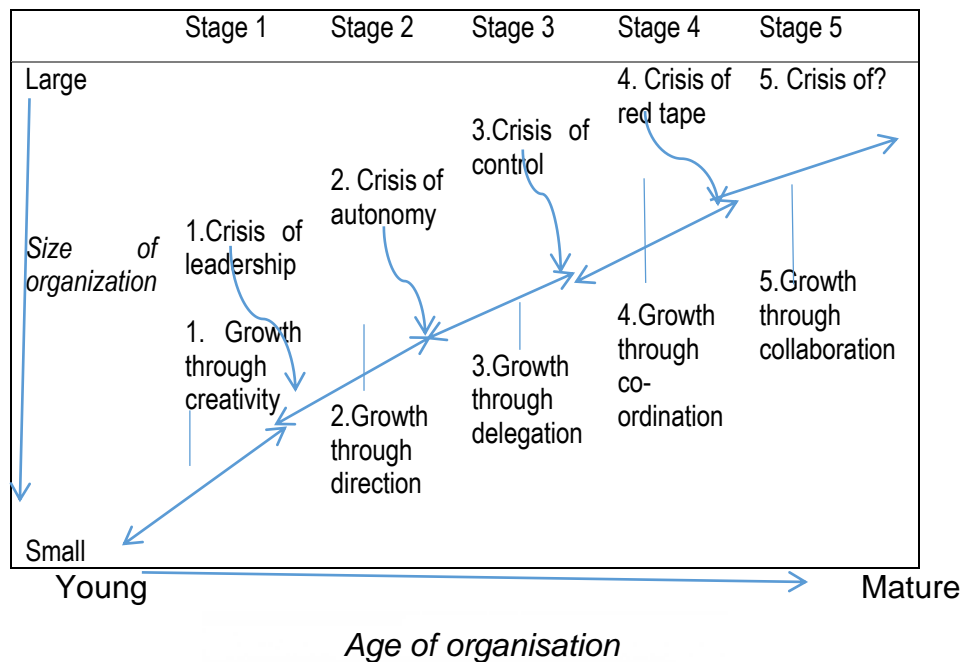
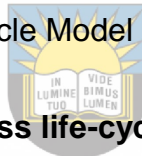


Figure 3.1: Greiner (1972) Life-cycle Model

Source: Greiner (1972)



The Churchill and Lewis business life-cycle model

While Greiner's model relates more to the organisational and managerial tasks that evolve with growth, Churchill and Lewis' model explains and characterizes each of the stages of growth focusing on different aspects. They argue that while small businesses vary in size, focus and capacity for growth, they share common characteristics which may be categorized according to the stage of evolution of the business (Churchill and Lewis, 1983). The model was developed as a framework for guiding owners and managers of small businesses in assessing and understanding the challenges faced in developing their new business ventures. It identifies five stages which are (i) Existence, (ii) Survival, (iii) Success, (iv) Take-off, and (v) Resource maturity. Each stage is characterised by greater complexity and is described by managerial style, organisational structure, extent of formal systems, major strategic goals and the owner's involvement in business as the main factors.

According to Churchill and Lewis, the existence stage is characterised by a strategic drive to stay afloat whereas in the second stage, the strategic focus shifts to establishment of a good customer base for the product portfolio. Once enough

customers have been enlisted, the business enters the third (success) stage in which the owners and managers now focus on the relationship between revenue and expenses in order to preserve an economic return on assets and labour. At this stage, they posit that functional management areas such as planning, production, financing and marketing are well developed to deal with challenges arising from the growth of the business.

At the take-off stage (stage four), the entrepreneur is preoccupied with consolidating resources so as to invest in growing the business (Churchill and Lewis, 1983). Sufficient resources are mobilized which are needed to drive the business to a higher level of growth and move to business maturity. Churchill and Lewis' model sees a business developing to the maturity stage as the last of the evolutionary stages. If sufficient resources are not mobilized, operational problems may arise leading to the enterprise reverting to earlier stages of evolution. Thus, Churchill and Lewis conclude that the pattern of operational challenges at the different stages of evolution determine what resources are required. More specifically, it determines the sources and types of financing that are most appropriate to effectively resolve the challenges. It is this model that Scott and Bruce (1987) modified to come up with their own version of a new enterprise life-cycle.



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The Scott and Bruce business life-cycle model

Scott and Bruce slightly altered Churchill and Lewis model but still identified five distinct stages through which small businesses evolve. They identify the first stage as inception stage and referring the third stage as growth instead of success. The fourth stage was identified as expansion instead of take-off stage. Both models consider the second stage as survival stage and the last as maturity stage. A distinct feature of the model is the existence of four crises points that precede the movement into a next stage of evolution. The anticipation of the crises and their successful resolution ensures the survival of the growing small business. They however acknowledge that small businesses may not follow all the stages suggested in the model but still the model is a worthy diagnostic tool to assist in evaluating the management of small businesses. Table 3.2 below summarizes the key features of Scott and Bruce model, highlighting the five life-cycle stages and the key aspects characterising the enterprise at each of the stages.

Table 3.2: A summary of Scott and Bruce (1987)' small business growth model

	Stage 1. Inception	Stage 2. Survival	Stage 3 Growth	Stage 4 Expansion	Stage 5 Maturity
Stage of industry	Emerging, Fragmented	Emerging, Fragmented	Growth, some larger competitors, new entries	Growth, Shakeout	Growth/ shakeout or mature/ declining
Key issues	Obtaining customers, economic production	Revenue and expenses	Managed growth, ensuring resources	Financing growth, maintaining control	Expense control, productivity, niche marketing (industry declining)
Top management	Direct supervision	Supervised supervision	Delegation, co-ordination	Decentralization	Decentralization
Management style	Entrepreneurial, Individualistic	Entrepreneurial, Administrative	Entrepreneurial, Co-ordinate	Professional, Administrative	Watchdog
Organisational structure	Unstructured	Simple	Functional, Centralised	Functional, Decentralised	Decentralised functional/ Product
Product and Market research	None	Little	Some new product development	New product innovation, market research	Production innovation
Systems and controls	Simple bookkeeping, eyeball control	Simple bookkeeping, personal control	Accounting systems, simple control reports	Budgeting systems, Monthly sales and production reports, delegated control	Formal control systems, management by objectives
Major source of finance	Owners, friends and relatives, suppliers, leasing	Owners, suppliers, banks	Banks, new partners, retained earnings	Retained earnings, new partners, secured long-term debt	Retained earnings, long-term debt
Cash generation	Negative	Negative/ Breakeven	Positive/ Reinvested	Positive with small dividend	Cash generator, higher dividend
Major investment	Plant and equipment	Working capital	Working capital, extended plant	New operating units	Maintenance of plant and market position
Product-market	Single line and limited channels and market	Single line and market but increasing scale and channels	Broadened but limited line, single market, multiple channels	Extended range, increased markets and channels	Contained lines, multiple markets and channels

Source: Scott and Bruce (1987)

As shown in the Table, the key aspects that vary are the stage of the industry, key focal issues, activities of top management, management style, typical organisational structure, level of product and market research conducted, control systems in place,

major sources of finance, the level of cash generation, major investment activities and the state of the product market.

The Massey business life-cycle model

Massey, Lewis, Warriner, Harris, Tweed, Cheyene and Cameron (2006)'s model, regard business evolutionary stages as sequential like the above models. However, it posits that the pace of growth within each stage and in transitioning from one stage to the next may not be uniform. As such, it postulates a dynamic yet sequential life-cycle pattern. In addition to the five stages, it includes some non-growth, low-growth and high-growth phases (Massey et al., 2006). The dynamism referred to in this model is confined to the changes or non-uniform pace and patterns of evolution from one stage to the next. It argues that it is possible for a new start-up venture to experience stagnation over some time, slow growth and high growth phases depending on how management deals with different constraining and enabling conditions in the business environment.

The Nadeau Venture life-cycle model

The newer models have tended to include more stages and not refute the application of the concept of a life-cycle to entrepreneurship. For instance, Nadeau (2012) suggests that the number of life-cycle stages could be increased to twelve including development, seed, start-up, survival, early growth, rapid growth, expansion, maturity and ultimately the exit stages. However, Nadeau still prefers to consolidate the stages to five when analysing the typical new venture life-cycle.

The consolidated five-stage model proposed includes the development/seed, the start-up, the early growth, rapid growth or expansion and the exit stages. The first stage involves idea or concept generation which is followed by product development and initial marketing at the start-up phase. The early growth stage is the initial phase of increased production and product and services delivery. If the enterprise is successful, it then moves to a stage where products and services become commercially available in large volumes (Nadeau, 2012). A curious difference with the other models is the omission of the maturity phase leading the venture to the exit stage once the products and services are widely available.

One of the many extended models is DeTienne and Wenneberg (2016)'s model which provides more detail on sub-stages including disproportionate pace of evolution within

each stage as well as the possibility of stagnation and even growth reversal. A key contribution is that the evolution is viewed as dynamic as opposed to the static sequential process in the context of the other models above (De Tienne and Wennberg, 2016). Still, there is recognition of the enterprise life-cycle-stages as being characterised by stages, albeit capturing more of the patterns of stage specific changes and challenges and their impact within each stage.

The trend in attempting to reflect more on the dynamic nature of the evolutionary process led to a search for a more comprehensive new enterprise life-cycle model. This search explains why models have tended to be more elaborate than their predecessors. However, given the complexity of variables that affect the growth process for new start-up enterprises, no such model has been able to capture all the factors and their attendant dynamics (O'Farrell and Hitchens, 1988). Therefore, the question in modelling new venture evolutionary process has been reduced to the issue of selecting the most significant variables, factors, challenges or changes that define an evolution stage as well as mark the transition to the next stage (Levie and Lichtenstein, 2010).



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Looking at the life-cycle models, a common characteristic is that they highlight the management style of the entrepreneur, the main functional activities, the challenges faced at each stage and the typical ways and resources for the development of the enterprise (Liao and Gartner, 2009, Mac an Bhaird and Lucey, 2010). Of particular interest for this study are the sources and instruments for financing SMMEs at each stage as suggested in these models and other specific financial life-cycle models. The proponents of the enterprise life-cycle models generally agree on the key characteristics at each stage as well as the usefulness of the models as basic frameworks for an organized approach to developing and financing new enterprises. The demarcation of the venture life-cycle into sequential and linear evolutionary stages is considered as providing clear bases for well-timed strategic shifts in managerial focus and resource mobilisation (Weston and Brigham, 1970).

3.2.4 Criticisms of the Venture life-cycle concept

Two sets of criticisms have been levelled against the new venture life-cycle concept. The first set of criticisms tends to be based on complexity theory which argues that the

whole idea of a venture life-cycle is abstract. Several factors shape the new venture evolution process. As a result of the dynamic interplay of myriad variables, no single model can be conceived to really characterise the venture evolution process. The second set focuses on the existing venture life-cycle models. These criticisms challenge the nature and insightfulness of the life-cycle models that have been developed. The critics however accept the importance of embracing the concept of venture life-cycle as a useful management tool for new business ventures.

From studies that critique the new venture life-cycle models, three key criticisms have emerged. These have been highlighted in some studies (O'Farrell and Hitchens, 1988; Levie and Lichtenstein, 2010). The critics question (a) nature of the life-cycle models, (b) the sequential assumptions made, and (c) the extent of empirical validation. Each of these is briefly explained below.

a) The nature of a business life-cycle

The first criticism is that small businesses do not necessarily follow the life-cycle as postulated by proponents. The few detractors argue that the idea of a human-like life cycle is not perfectly applicable to conceptualizing and growing a business. They view business management as done through an ad-hoc process, whereby challenges and needs arise irrespective of business stages (O'Farrell and Hitchens, 1988; Parker, 2006).

b) the sequential nature

A second criticism of the life-cycle models disputes the nature of transition from one stage to the next. Critics point out that the transition does not always follow the pattern posited by the models (O'Farrell and Hitchens, 1988; Massey et al, 2006). They argue that the development of new ventures does not necessarily progress from one clear stage to the next in a sequential manner. The distinction between stages may not be that visible and clear cut. For example, the critics point out that the transition from start up to survival stage or from growth to expansion may be difficult to recognize.

Extraneous factors such as economic or trade cycles outside the control of the enterprise may even adversely affect the growth trajectory of an enterprise at any time irrespective of the evolutionary phase. As a result, the size of a business and the focus areas may swing back to the levels of earlier stages due to the negative impact of an

economic downturn. The critics content that growth of new ventures is rarely smooth as the life-cycle curve suggests. Instead, it tends to be characterised by growth spikes, spurts, stagnations and even contractions that are non-uniform in both size and duration (Storey, 1994). They gave an addition of a new major client to a small business as a cause for a major growth spurt while a loss of a key customer can cause major reversal in the growth process (O'Farrell and Hitchens, 1988; Levie and Lichtenstein, 2010).

A business may remain at the same level of development due to lack of market expansion (Stokes and Wilson, 2006) or as a result of a strategic choice to avoid growth. This may allow the owner to retain sole proprietorship of a manageable business in terms of size and structure. Stokes and Wilson therefore argue that many new small enterprises often reach a stable size or stage and never progress to further phases. They cite survivalists and lifestyle entrepreneurs as the type of owners with little or no motivation to grow their businesses beyond survival stage.

c) empirical validation

According to the linear life-cycle models, transition from one stage to the next is marked by firstly, a heightening of some operational crises and secondly, the resolution of the challenges associated with the crises (Greiner, 1972; Churchill and Lewis, 1983). This contention is disputed by critics who argue that this has not been empirically validated. As a result, they argue that there are few empirical tests and further indicate that the development of an enterprise is a complex process. This process is subject to many variables, internally and externally, all impacting the growth process (Storey, 1994).

Internally, business development is influenced by among other factors, the enterprise's resources, the level of owner motivation, the previous management experience as well as demographic factors such as age and level of education. Externally, a host of economic factors such as availability and cost of capital, trade cycles, level of competition also impact on the pace and pattern of new venture evolution. Psycho-social factors like shifting lifestyles, tastes and preferences amongst the major customer groups may further dampen or spur enterprise growth. The critics therefore argue that by attributing the growth process to a few main variables, the life-cycle models tend to over-simplify a very complex evolutionary process.

3.2.5 The application of the life-cycle model in this study.

Despite the criticisms levelled against the linear life-cycle concept, it is still widely recognized as useful for guiding the management of emerging small business ventures (Perenyi et al., 2008, Perenyi et al., 2011). The wide acceptance of the concept is shown by the numerous studies that suggest different life-cycle models and not totally reject the basic concept (Myers and Majluf, 1984, Liao and Welsch, 2008). Within the Zimbabwean agricultural SMME context, the difficult operating and financing environments tempt business owners to employ block and ad-hoc funding approaches. The complex interplay of negative factors tempts business managers to resign to fate and manage their businesses on ad-hoc basis.

The central objective of this study is to assess the extent to which agricultural SMMEs owners who recognize the challenging business environment take steps to carefully finance their businesses in a proactive way. In fact, the premise for this study is that existence of the negative factors that agricultural SMME owners face should actually drive them to use a life-cycle financing approach. This allows them to have a carefully planned approach to ensuring that the limited funding available is effectively used. In addition, a life-cycle approach allows agricultural SMME owners to proactively advocate and lobby all financiers and other support agencies to provide the necessary support in a more organized stage-by stage approach.

The approach further allows for careful consideration of the appropriateness of funding availed. This approach is quite necessary within the Zimbabwean context since block and ad-hoc funding approaches merely confine agricultural SMMEs to using what is available even if the funding does not address the operational needs of the SMMEs stage-by-stage. The venture life-cycle model is therefore adopted in this study as a more suitable strategic framework for appraising the management and life-cycle financing practices for agricultural SMMEs (Perenyi,2011; Myers and Majluf,1984).

Agricultural SMME owners in Zimbabwe need to compliment government's agricultural SMME policies as well as efforts of other support agencies. They can do so by adopting approaches that make them active and not passive participants in resolving challenges that negatively impact the development of their ventures. Rather than having a haphazard and ad-hoc approach to venture development, the entrepreneurs

subscribing to the venture life-cycle approach are able to select financing arrangements stage by stage. These arrangements can be reviewed and the right type of funding sourced.

The major obstacles to agricultural SMME development in Zimbabwe are encountered mainly at specific stages of new venture evolution. The sourcing and use of funding is therefore more effectively approached from a stage-specific perspective (Kim and Suh, 2009, Lopez-Garcia and Sogorb-Mira, 2008). In addition, since funding used by small-scale farmers and agribusinesses (as observed in the previous chapter on impact of policies) is not suitable and adequate, a life-cycle financing approach allows for sourcing funding targeted at the critical stages. If the limited funding is targeted at such stages, it can register greater developmental impact.

3.2.6 The model adopted for the study

After considering the various existing models, a model that considers the basic identifiable as opposed to elaborate stages was adopted for this study. The six stages are conceptualisation (inception), setting up and ensuring survival, growth, expansion, maturity and decline. While a number of existing models exclude the decline stage, it is included as one of the basic stages to enable analysis of business decline as a transitional phase in existing businesses as well as a final end stage. Unlike the models that do not include decline, the six-stage model adopted for the study better captures the realities in the evolutionary process of new small businesses.

3.3 Life Cycle financing theories

One of the objectives of this study relates to examining “*the extent to which the types of funding used were targeted at addressing the key life-cycle needs of agricultural SMMEs.*” Some pertinent questions arise when examining the types of funding used at each stage. For instance, what determines the selection of the type of financing used at each stage? What considerations dictate the use of one source or type of financing? Is there any discernible association between venture life-cycle and the types of funding used? Are these funding sources and types used the most appropriate in adequately and sustainably financing the agricultural SMMEs throughout the

venture life-cycle? To appreciate the sourcing and selection of the types of funding used, a review of related theories is necessary.

The main theories that explain new venture life-cycle financing are Modigliani and Miller's (1963) static trade-off theory; Weston and Brigham's (1970) financial life-cycle theory of the firm; Jensen and Meckling's (1976) agency theory; Myers and Majluf's (1984) pecking-order theory and Fazzari, Hubbard and Petersen (1988) financial capital constraint theory. These theories are discussed below with the basic postulations, variables, claims of the theories with respect to SMME life-cycle financing patterns and considerations highlighted. Given the demand-side focus of the study, the theories are discussed starting with the one which is at the core of this study.

3.3.1 Financial life-cycle theory of the firm

The financial life-cycle theory as originally postulated by Weston and Brigham (1970) conceptualizes a new enterprise as developing through human-like life-cycle stages, from conception to ultimate demise. Other versions of the theory have been developed but still retain the central proposition of life-cycle financing pattern for new ventures. One of the more widely accepted versions is Berger and Udell's (1988) financial life-cycle model. The focus of this version of the theory is to explain the small business capital structure (Berger and Udell, 1988).

Similar to the other stage models developed in organizational studies literature, the financial life-cycle theory models firm financing across a number of evolutionary stages. It further posits that different venture life-cycle stages are characterized by specific financing problems (Weston and Brigham, 1970). As a new firm grows, its financing requirements evolve in stages as it experiences new operational challenges. The growth stages with their specific financing needs are the independent variables while the sources and types of finance typically used at each stage are the dependent variables. These problems or challenges are determinants of the choice of sources and types of finance applied at each stage. The underlying claim in this theory is that financing problems evolve in stages along the venture life-cycle. Therefore, selection of financing sources depends on the set of financing problems faced at each stage.

Business owners and managers therefore should have an intimate appreciation of growth dynamics at each stage. They have to know the kind of challenges typically faced and how those challenges manifest themselves as well as their effects. The stage specific nature of challenges faced imply that suitability of available financing options is also venture-stage specific (Aydin, 2015). Thus, the selection and usage of funding is not only determined by availability, accessibility, affordability but more importantly by how suitable the types of financing are for addressing the challenges. The resultant financing pattern is that the new firms initially rely upon internal funding. Subsequently, subject to availability, accessibility, affordability and appropriateness, external sources and types of finance are then used as the firms grow (Myers and Majluf, 1984).

Berger and Udell (as a revised version of Weston and Brigham's theory) use the linear life-cycle theory and view financing of a new start-up business as developing through linear or sequential stages. It asserts that since new firms lack sufficient internal resources and strong credit profile, they finance their operations more from internal sources than external. As they grow and establish themselves, they develop the capacity to engage external financiers thus broadening their capital structure through use of debt and equity in addition to internal funding. The version predicts a consequential evolution of financing in a predicted way with owner-managers being able to properly plan and project venture development paths. More importantly, they are able to match financing problems to the right financing instruments and sources when approaching financiers and policymakers for support (Berger and Udell, 1988)

While the linear financial life-cycle theory has been widely accepted in start-up finance, the main opposing view has come from complexity theory (O'Farrell and Hitchens, 1988; Massey et al, 2006). Complexity theory, in the context of new firm development, argues that new venture creation and development process is dynamic with non-sequential steps. As a result, it is difficult to know exactly the next stages and their specific financing needs. This alternative proposition argues that new business venture owners rely on hunch and improvisation in determining financing needs.

The underlying argument is that when seeking funding, it is therefore not possible for owners to pinpoint the exact stage-specific needs to be addressed. This assertion justifies the search for non-stage specific bulk funding as well as the funding of

business problems as they arise. On the supply-side, this explains in part, the huge agency costs and greater financial risks that financiers wary about when financing SMMEs (Jensen and Meckling, 1976). The agency costs and financing risks faced by financiers arise from business owners seeking funding for business problems that are not clearly specified and linked to specific business development needs.

In this study, the financial life-cycle theory is important in understanding how agricultural SMME owners and managers determine the type funding used throughout the business life-cycle. It is used as a basis for studying the operational problems faced, the associated financing needs and choice of funding used at each stage. In many cases in developing countries, the non-availability of certain financing instruments curtails the use of appropriate stage-financing (Asian Development Bank, 2015, Nathan and Associates, 2016). For example, non-availability of research grants often limits research in feasibility and viability of agricultural SMME projects at conceptualization stage. Similarly, there is often limited funding available for research on animal health and plant genetics which is key for quality improvement when expanding the business. However, in line with the financial life-cycle theory, when growth stages are identified, it becomes easy for business owners to know with greater certainty, the actual operational problems (problem identity) and venture development strategies needed (Liao and Welsch, 2008). These help in determining the most suitable type of funding venture owners and managers have to secure and use at each development stage.

3.3.2 The Pecking order theory

While Weston and Brigham's (1970) financial life-cycle theory uses the venture development stages to explain variations in financing needs, Myers and Majluf's (1984) pecking-order theory offers a different perspective. Cognizant of the Weston and Brigham's proposition, Myers and Majluf argue more on the basis of firms' preferences for financing sources. These preferences are essentially between internal versus external finance and are exercised as new ventures develop.

The underlying argument for this theory is that firms exhibit a preference hierarchy in their selection of sources of finance. Myers and Majluf refer to this hierarchy as a "pecking-order". The pecking-order is such that firms initially financing operations from

internal sources such as own savings of the owner, family and friends as well as retained earnings and sale of non-core assets. Such sources of finance are preferred as the businesses are still small and have not yet developed enough financial capability to source funds externally. As a result, the theory postulates that leverage decisions are determined by growth and profitability in tandem.

Another reason for this preference is that using internal funding that does not attract interest enables owners to retain full control of the affairs of the business. Once the businesses have established acceptable credit and trading profile, the owners then move on to use debt financing and then to inviting external equity (Wilson and Silva, 2013). The proponents claim that the main determinant for the selection of internal or external source of finance by business owners is information availability. This information relates to the nature and growth prospects of their ventures (Wilson and Silva, 2013).

As new firms are created, owners have limited information about the nature and growth prospects. As a result, the owners prefer to rely more on internal sources of finance such as personal savings and contributions by friends and relatives. As more information becomes available with growth of the venture over time (as businesses become older and presumably more established), the owners move further up the pecking order to sourcing external finance Myers and Majluf, 1984. From the supply side, external financiers also become more comfortable lending to the SMMEs buoyed by better repayment prospects of borrowers.

The main interacting variables according to the theory are business age, opaqueness of information (or knowledge of business) and the sources of funding used. The interaction of the variables is such that the preference or choice of funding essentially is split between internal and external as the dependent variable. This is influenced by the amount of information that the business owners have about their businesses. The more limited (opaque) the information they have, the more they rely on internal sources. This is typically the case for younger businesses. Thus, the theory considers the age of business as an independent variable that determines the level of knowledge that business owners have about the nature and growth prospects for their businesses.

One criticism of the theory is that it uses business age as a proxy for growth. It is based on the assumption that the number of years a business has been in operation is a reflection of how the firm has grown. Yet a business may exist for several years without registering significant growth. Life-cycle stage theories on the contrary explain firm growth in terms of phases of significant changes in sales volumes and transitions in operational needs or challenges and strategic focus for managers. As a result of its use of business age as a primary determinant of choice of funding over time, the theory therefore does not explain whether the resultant pecking order takes into account the appropriateness of such funding arrangements.

Myers and Majluf's (1984) pecking-order theory acknowledges previous theories (financial life-cycle, static trade-off and agency theories) regarding the sourcing and selection of types of finance by firms. It however argues that owners start with internal sources, moving on to debt, and then employing external equity as it grows. The order is influenced by declining information asymmetry as a new venture grows. In a way, the pecking order theory presents a similar argument as the life-cycle financing theory. However, its main contributions are explaining the basis for choice of finance and presenting the choices in terms a hierarchy as a new small venture develops.

In the context of this study, the pecking order theory is useful in explaining the order in which agricultural SMME owners use the various types of financing. Thus, the financing patterns and preferences of agricultural SMME owners can be assessed based on the predictions of this theory. Furthermore, based on the hierarchy of financing preferences observed, an evaluation of the appropriateness of funding choices used may be conducted.

3.3.3 The Static Trade-off theory

Modigliani and Miller's (1963) static trade-off theory is an important theory which may explain the business owners' choice of types and sources of funding for agricultural SMMEs. The theory is one of the pioneering works in corporate finance and, like the pecking-order theory, it explains the decisions facing firm owners and managers in terms of selecting between internal and external financing. However, Modigliani and Miller's theory emphasizes the trade-off that firms face between the two sources of

finance. It proposes that firm owners have a choice of employing more internal than external finance or vice versa. Each source has its advantages and disadvantages.

The choice of more internal funding implies a conscious and voluntary decision to reduce the use of external funding. The same applies to the choice of more external funding. As a result of each choice, a trade-off arises whereby use of one type of funding implies using less of the other. The trade-off arises from a deliberate choice decision based on a comparative analysis of the advantages and disadvantages of using internal and external finance in the capital structure.

The main propositions are, firstly, owners who use internal sources want to benefit more from retaining control of the business. The use of external finance in the form of debt or new equity investment into the business has the unintended effect of diluting control and ownership. Secondly, owners that employ more debt than equity want to increase the after-tax earnings of a firm. The benefits accrue from using borrowed capital as well as from the tax deductibility of interest on debt (the so-called debt tax-shield). Applying more debt leads to more after-tax earnings due to the tax deductibility of interest payments.



However, choosing more debt comes at a cost as more debt could spell bankruptcy and loss of control. On the other hand, using only internal finance limits financing options, stifles growth and misses the benefits from debt tax- shield (Modigliani and Miller, 1963). The theory therefore proposes that SMME owners and managers should aim at an optimum capital structure that strikes a delicate balance between debt and equity as they finance their operations. They should adopt a capital structure (combination of debt and equity) that maximizes the benefits from using debt finance while at the same time maximizing the benefits from equity finance.

The key variables of concern in the theory are choice of funding which is a dependent variable determined by targeted capital structure. This is influenced by the calculated benefits and costs of using debt over equity. The greater the net benefits of debt, the greater is the share of that type of finance in the overall capital structure for the firm. Whilst the theory is very important in aiding understanding of the choice decisions business owners face, a major criticism is that it assumes that they have total control of the financing decision making process. The theory is based on the assumption that business owners have the freedom to choose between employing more debt or equity.

Yet, the ultimate capital structure often is influenced by factors beyond the control of business owners in the selection of types of funding.

In this study, the static trade-off theory is vital in providing possible explanation for the financing choices and decisions of agricultural SMME owners in Zimbabwe. It is useful in explaining possible determinants of the financing choices made by agricultural SMME owners. Furthermore, based on its postulation, the appropriateness of some of the financing choices (for instance such as those aimed at retaining control) may be evaluated in view of the need to resolve the main stage-specific operational problems of the businesses.

While the three theories above explicitly explain financing patterns based on decisions of venture owners and managers, the principal-agency and financial capital constraint theories bring in also the choices financiers face as influenced by financing behaviour of business owners. This is vital given that the financing behaviour of business agents on the demand-side invariably affects the supply of finance. The behaviour of business agents influences the qualification criteria for providing external funding. Conversely, financiers dictate financing options available to business owners and managers.

Financiers determine availability, accessibility, affordability, appropriateness and sustainability of finance offered to an emerging business based on their assessment of the business owner characteristics and behaviour that reflect creditworthiness. The two theories thus explain the interaction of behaviour of business owners on the demand-side and that of financiers on the supply side. Both are useful in understanding the financing behaviour and choice of a business owner as influenced by a combination of demand-side and supply-side considerations.

3.3.4 Principal-Agency theory

The demand and supply of finance has been a topical issue amongst business owners, financiers and policymakers for quite some time (Namazi,2013). One of the explanations for the patterns of demand and supply of business finance is provided by the principal-agency theory developed by Jensen and Meckling (1976). The theory has been explored further by other theorists (for instance, Jassim, et al, 1988; McColgan, 2001 and Namazi, 2013). However; they still highlight the information asymmetry between agents and principals as a major determinant of access and

appropriate application of finance. Of the different versions, Jensen and Meckling's (1976) theory is most illustrative in explaining demand and supply of finance as influenced by the principal-agent relationships between external providers of capital and business owners.

The theory postulates the existence of information asymmetry between owners and managers of small businesses as well as between owners and financiers. Between owners (principals) and their business managers (agents), the agents may possess finer details about the real strategies and growth prospects of the businesses. As a result of the information asymmetry, the agents may exploit this to their advantage. This moral hazard may result in managers making business financing decisions that are not in the best interest of the business. This compromises the growth prospects of the businesses when funding secured is used by managers to enhance their remuneration at the expense of addressing the specific funding needs of the businesses and return for the shareholders.

The principal-agent relationship also arises when the business owners (the agents) possess finer details about the financing and growth prospects of the businesses than external financiers (principals) (Jensen and Meckling, 1976). The existence of the information asymmetry between them creates adverse selection as financiers lack quality information on which to screen businesses and select sound investments. This further creates a moral hazard whereby the agents exploit the information disparity by misappropriating borrowed funds and increase the risk of default in repayment.

The main determining variables in the sourcing and proper application of funds by business owners are information asymmetry and moral hazard. A central argument of the theory is that financiers are prepared to offer more funding in the absence of moral hazards and information asymmetry. With better information, financiers price risk and control adverse selection through better screening of projects based on bankability and appropriateness of application of funds (Jensen and Meckling, 1976). Due to the information gap, suppliers are not able to accurately price risk of financing. There is potential for adverse selection with more bad borrowers accessing finance than good ones. The lack of full information creates monitoring loopholes that allow business owners (borrowers) to misappropriate borrowed capital and compromise loan

repayments. In Zimbabwe, several claims have been made by financiers with respect to the moral hazard existing among the new small-scale farmers (James,2015).

For this study, the theory is important in explaining how venture capitalists and other financiers for agricultural SMMEs formulate contracts that restrict the potential for adverse selection and moral hazards in financing business operations of the new farmers. It may assist in assessing how financiers and business owners ensure that disbursements of financing tranches are tied to successful implementation of requirements at specific stages. From the financiers' point of view, stage-based financing of businesses can be useful in minimising the agency problems. This may be achieved through using the approach as a basis for assessing investments before committing more financial resources for latter stages of a project (Wang and Wang, 2009). This is the approach preferred by venture capitalists.

Furthermore, entrepreneurs can also use stage financing as a strategy to minimize the risks arising from the satisficing behaviour of their business managers. This may be achieved through fully assessing the stage risks and the requisite financing prior to moving to the next stage of development. The theory therefore provides a vital framework for understanding the basis upon which financiers avail agricultural SMME financing in Zimbabwe and whether there are any agency problems that restrict availability of life-cycle financing.

3.3.5 Financial capital constraint theory

An alternative explanation to availability of financing as well as the financing patterns for small businesses has been provided by the financial capital constraint theory. Fazzari, et al., (1988) were early proponents of the financial capital constraint theory. The theory posits that small firms face financing constraints. Business owners face a key question relating to what they can afford to invest (Sussman, 2008). The question arises due to the existence of a capital constraint, that is:

“the small size of net capital available for spending during a designated period of time” (Sussman, 2008, p. 64).

The size of a firm's capital constraint is determined through a capital position analysis that takes into account all sources and uses of funds. This constraint is a critical guide to investment decisions (Sussman, 2008). The firms' financial capital constraint is

linked to key variables which are firm-size and capital market information problems (Fazzari et al., 1988). The theory has three main propositions explaining the capital constraints.

Firstly, small firms face financing constraints due to their size when trying to benefit from external finance. Since they are small, they are limited both in size of financial amount as well as the funding options they can use. However, as the ventures grow in size, they gain greater access to broader sources of finance including external financing. Secondly, small firms are not exposed to capital market information and this further limits access to external financing options available.

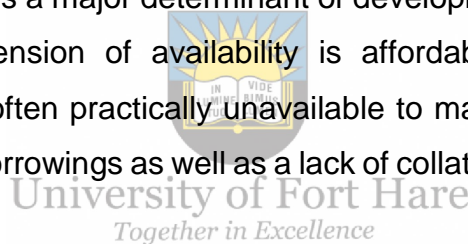
Thirdly, internal and external finance are viewed as imperfect substitutes. In other words, internal finance may not function perfectly to deal with all financing problems that ideally require external finance. This is due to differences in both sizes of amounts as well as the structuring of financial instruments. How the financing constraints cripple entrepreneurship has been discussed further, for instance (Kerr and Ramana Nanda, 2009). The implication of this theory for this study is that since typically agricultural ventures start small, they therefore struggle to access external funding that may be more tailored to the specific challenges they face.

From the supply side, this theory has also been applied to explain the constraints faced by banks in extending sustainable credit to SMMEs. Availability, adequacy, affordability and appropriateness of funding sources and instruments are four key variables of particular concern to stakeholders in agricultural SMMEs. High levels of all four determinants are critical to new venture success. They are closely interconnected and all interact to influence sustainable financing and development of the subsector. On the downside, low levels cripple all activities, including effective implementation of strategic decisions to promote venture development.

Since its development, the financial capital constraint theory has been used to explain availability of credit especially for small enterprises (Markovic, 2006, Van den Huevel, 2007, Ergungor et al., 2015, Ritz and Walther, 2015, Kirschenmann, 2016). The theory highlights the impact of bank capital regulation on the ability of banks to avail adequate credit to small firms. It posits that banks may be limited due to the need to stick within prudential requirements set out by regulators in line with the Basel Accords (IOSCO, 2015).

The stricter demands for banks to comply with implementation of Basel III requirements to hold more capital potentially curtails SMME financing by making it more expensive and inadequate (IOSCO,2015).Thus, financiers also face constraints from the Basel III capital adequacy requirements (Krishnamurthy, 2011, Holod and Kitsul, 2010).Particularly, in more financially uncertain environments, as a prudential measure, financial regulators requirement banks to reserve more capital as a safeguard on deposits. Raising more capital requirements for banks, according to this theory, constrains bank lending capacity, with SMMEs as the most negatively affected (Reserve Bank of Zimbabwe,2016). Whether or not these requirements actually constrain availability, adequacy and affordability of SMME financing in Zimbabwe is part of this study.

As a key variable, availability of credit is a function of decisions, activities and policies of financiers, and yet it is a major determinant of development, growth and success of SMMEs.A critical dimension of availability is affordability. Typical market-based financing sources are often practically unavailable to many small enterprises due to high interest rates on borrowings as well as a lack of collateral to secure loans (Thakor, 2016).



Crucially, any available financing sources and instruments should be appropriate and tailored to address the specific funding needs of an enterprise. For smooth venture development, unconstrained availability is critical to sustainable financing. Financing constraints cripple effective implementation of policy frameworks to promote the subsector. On the demand-side, the constraints faced by business owners curtail financing options and distort the selection criteria for small firm stage-financing (Fazzari et al.,1988). In this study, the financial constraint theory is therefore useful in offering possible explanation for the constraints faced by agricultural SMMEs owners as they seek external funding for their businesses.

3.4 Key Insights from theory

Looking at the above theories, there are key aspects about financing SMMEs that they all acknowledge though they offer different explanations. Firstly, all the theories

acknowledge financing constraints for SMMEs, either linked to stage of growth or venture size. These constraints restrict the SMMEs to specific sources and types of financing. For instance, the theories argue that internal sources of financing are usually used at initial stages or when the ventures are still small, moving on to external sources as the SMMEs grow in size or at later stages of development.

The theories however, emphasize different reasons for the capital structure ranging from desire to match with stage challenges, inability to access external finance due to size and other firm characteristics as well as information asymmetry. The pecking order theory considers the small business capital structure as a result of the funding preference of the owners. The static trade-off theory also views the ultimate investment decisions and capital structure as resulting from business owners exercising their freedom as they seek to achieve a targeted capital structure. These theoretical insights therefore are of importance in the evaluation of the capital structure decisions and choices exercised by agricultural SMME owners in Zimbabwe as their businesses evolve over time.



3.5 Empirical evidence on SMME life-cycle financing

A lot of important theoretical work has been produced to explain SMME financing. In addition, empirical studies conducted have explored the actual practices and determinants of such financing in many different contexts across the world. This section reviews some of the empirical studies on SMME financing with special focus on evidence for life-cycle financing. The section reviews studies on how SMMEs are funded as they evolve as well as the key determinants of such SMME financing patterns.

Whilst this study evaluates financing of agricultural SMMEs, the literature reviewed reflects on both SMMEs and small and medium enterprises (SMEs) in general and where available, agricultural SMMEs specifically. The rationale for this coverage is that in Zimbabwe, due to definitional problem, the “SMEs” terminology often implicitly incorporates the micro-subsector (IFC,2011, Government of Zimbabwe,2012). More importantly, amongst the agricultural SMMEs, the financing behaviours and patterns sought in this study are more pronounced amongst the SMEs, hence the relevance of the empirical SME financing literature (Government of Zimbabwe, 2012).

This review of empirical literature is divided into subsections in line with the four main areas of focus for the research questions. The literature on SMME owners' knowledge or awareness of funding sources available, the types of funding mostly used by SMMEs, affordability of SMME funding, the challenges faced and effects on sourcing SMME funding is reviewed. This sheds light on the aspects of concern for the first research question. The literature on typical life-cycle funding patterns and the main problematic development stages for agricultural SMMEs provide evidence on aspects which are sought by the second research question.

The review of literature on appropriateness of stage funding used and the main funding gaps assists in assessing the profile of the main issues of concern for the third research question. Lastly, the review of empirical evidence on the best practice stage financing for agricultural SMMEs assists in understanding the documented evidence on the best ways of financing the various stages of the business life-cycle. It explains the best SMME financing practices which are of interest for the fourth research question of the study. After reviewing the available literature, section 3.6 provides a summary of the literature as well as a pivotal discussion of the gaps which this study contributes towards addressing.

3.5.1 Business owners' awareness of funding sources of available

Two aspects of concern here are business owners' level of knowledge of financing options and the types of the options available on the market. The business owners' awareness of available funding sources is an important determinant of the level of use of such business funding (OECD, 2017). The level of awareness of availability of such funding options is the level of knowledge that agricultural SMME owners have and is also a very important factor influencing their use. For instance, what knowledge do business owners have about funding types? What kind of knowledge of venture development process do agricultural SMMEs' owners have? What is the most suitable funding option or source to use in a particular scenario? The way agricultural SMME owners and managers view and understand the world around them determines their approaches to venture development challenges as well as the selection and use of financing options.

The level of awareness is determined by the individual business owners' own level of financial education as well as the use of financial advisory services when making key investment decisions (OECD, 2017). Financial education is the process by which financial consumers and entrepreneurs improve their understanding of financial products, concepts and risks (OECD, 2017). Therefore, as a result of the information or advice received, entrepreneurs improve on their financial and investment skills and gather confidence to analyse investment opportunities and associated risks. Various OECD studies (OECD,2015; OECD,2017; 2018) have found out that entrepreneurs with higher levels of financial education are better placed to make informed decisions regarding sourcing of appropriate finance, growing and safeguarding their investments.

In the context of SMMEs, the OECD's Working group on financial education defines financial education as taking into account the different types of businesses and stages of enterprise, improving the knowledge of suitable financial products and knowing where to go for financial help (OECD, 2017). An improvement in financial education transforms the business owners' worldview regarding the problems they face, their attribution of the origins of the problems, the degree of influence they can exert on new venture financing and what they consider as beyond their influence. Specifically, the transformation in their approach to financing also changes their use of the types of finance as well as the timing of funding (OECD, 2017).

With respect to awareness of the funding options available, Richard, et al. (2014) notes that entrepreneurs' limited knowledge of financing needs has exacerbated access to suitable finance. They observe that new and inexperienced entrepreneurs struggle to describe the exact nature of their financing needs, making it problematic for financiers to avail appropriate finance. Despite their relatively better understanding of finance and structuring of financing instruments, financiers still require the business owners' input for them to avail properly structured funding instruments.

An influential factor in the appropriate financing of SMMEs is the source of knowledge about business financing. Business owners may rely on new venture development and financing advice offered by financiers or they may use their own knowledge to source funding. For instance, those that consider themselves as having sufficient business knowledge often make their own financing decisions. However, less knowledgeable

business owners may decide to get financing advice (OECD, 2015). Thus the capacity to independently influence the financing context is one of the important determinants for the use of external financing advice, and ultimately external financing instruments by SMME business owners.

Financial advisors have been found to greatly contribute to the ability of business owners to make better financing decisions (James, 2015; Baumann, 2015). Business owners with limited knowledge of financing have been found to benefit to a large extent from actively seeking expert business financing advice from banks and other competent sector-specific financing advisory services (OECD, 2015 and OECD, 2017). For instance, in an OECD (2015) study of SMME owners' awareness of funding options, traditional bank lending emerged as the type of external funding that business owners are typically aware of. The knowledge of alternative funding types was generally limited. This tended to restrict funding of businesses especially in environments where bank lending is limited due to underdevelopment of the financial markets.



In analysing the conduct of SMME owners and managers, two alternative basic assumptions are made about their choice of financing options. The first assumption is that the owners and managers follow a determinist orientation. With this orientation, owners respond to their environment as given, including only relying on what the environment provides (determinism). Such an orientation leads the agricultural owners and managers to accept the status quo as given, including the financing constraints they encounter and relying on financing options as structured and availed by financiers. Empirical evidence on the power to determine funding choices show that small business owners often operate in a deterministic way, accepting what is made available to them (James,2015; Richard et al,2014).

On the other hand, if they follow a voluntarist approach, they view themselves as having the responsibility to initiate their own actions (voluntarism) (Maree, 2007), including securing the right financing advice. They analyse their environment and devise alternative, innovative and sustainable financing measures based on identified venture stage problems and financing needs. Evidence from literature on scaling up SMME financing (IFC, 2011; IFC 2012; OECD, 2017) show that there is increased effort globally to boost the owners' participation in selecting and using suitable funding.

In this case, they are being encouraged to shoulder greater responsibility for securing appropriate stage financing including searching for external advice. It is in this context that available literature on owners' knowledge of SMME financing is reviewed.

The knowledge of availability of finance among SMME owners has been an area of growing interest for researchers. Most of the empirical studies ((Beck and Cull, 2014, FAO and AfDB., 2015) however tend to be based more on the feedback from financiers about SMMEs' level of knowledge. While they offer expert assessment, financiers tend to provide their evaluations largely from their supply-side considerations. The feedback from SMMEs owners is rarely considered (IFC, 2011).

The main sources and financing instruments available for SMMEs have been identified in literature based on several empirical studies conducted worldwide (IFC, 2014, Egyir, 2010, Phiri, 2009). These sources and financing instruments include the entire basket for SMME financing identified in studies conducted mainly as part of the global effort to assess the challenges faced by SMMEs in accessing finance.

The objective of these studies is to provide information that serves as a basis for the development of policies aimed at boosting access to finance for SMMEs. A host of sources that have been identified include personal savings, family and friends' contributions, micro-finance institutions, bank credit, donor agencies and angel investors, international development finance institutions and governmental funding schemes (Lewis, 2011). Their availability tends to differ, with greater availability observed in countries with more developed financial markets as well as for certain key agricultural SMME activities as explained below (OECD,2018).

Some empirical studies focussing on sources of SMME finance include (Masiyandima, Chigumira and Bara,2011; Evbuomwan, Ikpi, Okoruwa et al,2013; Calice, Chando and Sekioua,2012). These studies, among others, have identified a wide variety of financing sources and instruments available and taking various forms across the world. For instance, Evbuomwam et al. (2013) reviewed secondary data and also surveyed Nigerian SMMEs to determine access to finance. Specific focus was on agricultural and manufacturing SMMEs due to their prevalence in the economy. The study identifies as major sources several governmental-structured SMME finance



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schemes, commercial bank lending and financing from development finance institutions (Evbuomwan et al., 2013).

In Zimbabwe, sustainable financing options for farming in Zimbabwe were also surveyed (Masiyandima et al., 2011). The observations were that a variety of financial products were offered especially by agricultural finance institutions. The institutions however tended to be product-driven in their lending. This approach curtails financing of the sector as the institutions merely channel funds to SMMEs on the set terms. They do not engage demand-side stakeholders in order to develop and avail financing options suitable for SMMEs. Citing the unique success case of Bangladeshi Grameen Bank, they further observe that provision of financing such as research and development grants, management advisory services and insurance are often lacking especially in rural farming communities (James, 2015; Baumann, 2015).

Availability of financing for agricultural SMME in Zimbabwe has considerably worsened after 2000 following the implementation of the FTLRP (Malaba, 2014; African Center for Biodiversity, 2015). Financial support has dwindled arising from reduction in multilateral development finance flows and specific local economic challenges (Victoria, Medium and Moyo, 2012). Malaba (2014) notes that while commercial bank lending to agriculture increased from 1980 to 2000, the trend regressed thereafter. This compounded the financing gap particularly for SMMEs as international sources also declined, tied to the country's mounting external debt arrears.

The Reserve Bank of Zimbabwe (2015) reported that even microfinance institutions that have traditionally supported SMMEs have shifted their loan portfolios focusing more on consumption rather than lending to productive sectors. This is as a result of rising loan delinquency rates linked to general macro-economic deterioration. The downfall of Zimbabwe's microfinance sector has further worsened availability of agricultural SMME finance (Baumann, 2015). Factors such as the high interest charges and aggressive debt collection practices by micro-financiers have compounded the problem (Victoria et al., 2012).

There are wide disparities though in availability and access to financing sources across the wide variety of agricultural activities. These disparities, as observed in

various studies (African Center for Biodiversity,2015; USAID,2015), range from rural versus urban to product-specific availability of finance. For certain crops, for example tobacco, soya beans, wheat, sorghum, horticultural crops and cotton, financing especially through contract farming has been relatively more available for small-scale farmers. Several empirical studies acknowledge the key role that contract farming has played in financing such crops (Freidrich-Ebert Stiftung, 2002, Moyo, 2014).

Other agricultural activities have not been as targeted given the high risk- profile attached to lending to small-scale agricultural activities by traditional sources like banks (Berger, Frame and Ioannides,2016). The resultant financing gap for agricultural SMMEs has been widely revealed through empirical studies and acknowledged in policy documents (Government of Zimbabwe,2013; Government of Zimbabwe,2012). This financing gap arises from limited availability of both internal and external financing sources and constrains new agricultural venture development.

Availability of internal sources of finance is also constrained. A Zimbabwe household vulnerability assessment survey shows that generally low household incomes limit capacity to invest in farming and agro-processing enterprises (Food and Nutrition Council,2013). Particularly, the low incomes do not allow for procurement of adequate amounts of inputs and quality support systems infrastructure. For external funding, commercial bank lending remains the main source, though not always available and accessible to agricultural SMMEs due to limited branch networks and the high cost of borrowing (Evbuomwan et al,2013).

3.5.2 Funding sources mostly used

The level of awareness of financing options that are available is a major determinant of which options are mostly used by SMME owners, and in this case, agricultural SMME owners. Financial education broadens the array of financing options that the business owners know and therefore potentially use (OECD, 2017). However, certain conditions can influence the final selection of funding options from those that the entrepreneurs may be aware of (Karadzic et al, 2014). These conditions include credit conditions, government policy, and macro-economic environment impacting repayment prospects. Studies conducted on the usage of funding options by SMME

owners reveal that tight credit conditions (even worse for riskier sectors such as agriculture) restrict SMMEs to using mainly traditional funding sources. These include instruments such as bank lending and own savings, or retained income where profitability permits (Kim and Suh, 2009).

In markets with a broader array of financing instruments, credit guarantees are increasingly being used. The studies note that while policy makers are heightening promotion for the use of alternative financing instruments, their adoption rates however still lag behind. They further observed that even the use of traditional bank loans varies across countries. This is due to a number of factors such as availability of other sources of finance, challenging macro-economic contexts, effects of financial crises, expansion of self-financing opportunities (based on savings, retained profits for investment needs and cash-flow requirements), financial deepening and increased access to formal financial services and online technologies. The desire to retain control by sole proprietors also limits their use of debt instruments (Modigliani and Miller, 1963).



In Zimbabwe, the agricultural SMME loan portfolio of private financing institutions have been volatile after implementation of the FTLRP while also characterised by a shift from long to short-term finance (Reserve Bank of Zimbabwe, 2015). The trend whereby agricultural SMME owners meet their short-term financing needs such as working capital and liquidity needs from their own sources has also increased owing to the high cost of external borrowing and problems with obtaining collateral security.

The use of alternative financing sources by SMMEs across the world shows different trends depending on the level of financial market development as well as resilience to financial crises affecting many countries (OECD, 2019). In most developed countries, the use of factoring, leasing and hire-purchase, private debt, venture capital is increasing. In addition, other more innovative types of funding such as online alternative financing including crowd funding and peer-to-peer lending have registered different levels of growth. This trend has been observed especially after the 2007-2008 global financial crisis (OECD., 2019).

The diversification of use of financing options has been underpinned by a number of factors including economic growth, supportive government policies, and increased use by mature SMMEs experiencing transition in ownership or scale of business or

entering new markets. However, in developing countries and other developed countries (for instance Italy and Hungary cited in the OECD,2015 study) experiencing persistent financing constraint as well as shrinking financial markets, traditional bank lending and own funding have remained the main sources of SMME financing.

In Zimbabwe, a survey initiated by the Zimbabwe Agricultural Society in 2018 showed that self-funding and contract farming financing were the mostly used sources of funding in 2017 (Figure 3.2).

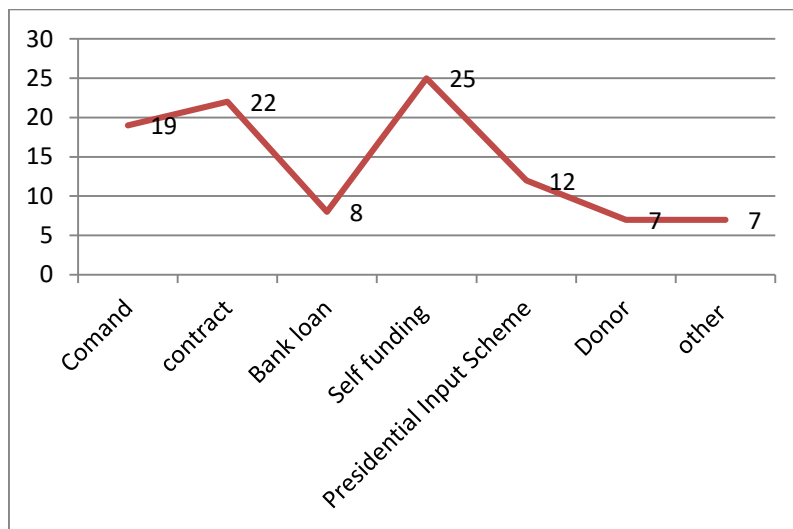


Figure 3.2: Funding type as a proportion (%) of total funding used in 2017
 Source: AS (2018)

The proportions remained the same in 2018 (Figure 3.3). Commercial bank funding of agriculture has particularly remained depressed largely due to persisting challenges with acceptability of the 99-year lease as collateral. This had a major negative impact on funding for agricultural SMMEs. The proportions of donor, Presidential Input Scheme and other funding such as joint ventures and partnerships also remained largely the same (ZAS,2018).

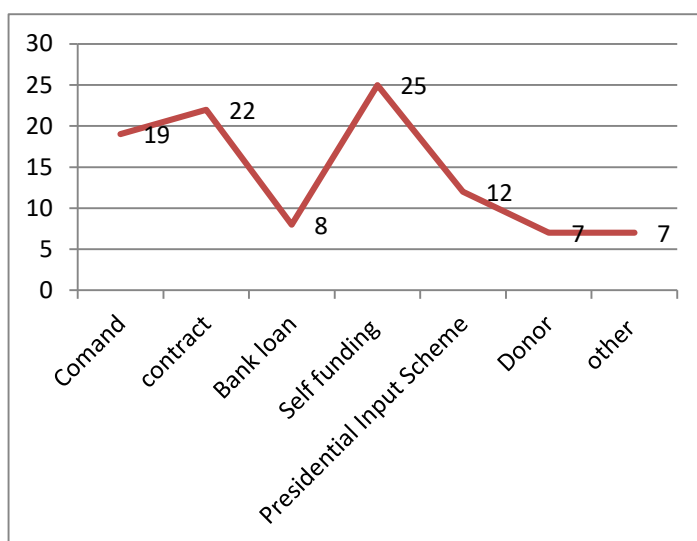


Figure 3.3: Funding type as a proportion (%) of total funding used in 2018

Source: ZAS (2018)

3.5.3 Affordability of SMME funding

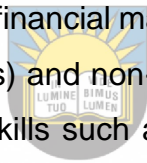
Affordability of funding is another key factor that affects the use of funding by SMME owners (Karedza et al, 2014; Masiyandima, Chigumira and Bara, 2011; IFC, 2011). While technically this relates to the cost of external funding, in a broad sense, this may also affect internal funding. This is the case because raising own equity has a cost associated with it in the form of the opportunity cost of such funding. For low income households, there is a high opportunity cost of raising own funding for a business. This is the case given that a significant portion is taken away leaving the individual owner with little to finance other domestic needs necessary to maintain a decent standard of living. The Food and Nutrition Council (2013) notes that most low-income households in Zimbabwe cannot afford to raise funding for farming and agro-processing income-generating projects due to pressing competing needs.

With respect to affordability of external funding, empirical studies show that high cost of borrowing and other credit requirements such as collateral security make such funding unaffordable to SMME owners (Baumann, 2015). This applies to bank loans and other interest-based financing instruments offered by financiers. Unaffordability of bank finance has been a major cause for small business owners. They have often inadequately funded their ventures as they are limited in the type of instruments and funding sources they can afford.

As a result of this challenge, most empirical studies recommend policy measures that seek to improve affordability of funding (OECD, 2004). The measures include the availing of hybrid financing instruments that consists of a portion supplied by private financial institutions combined with a subsidized component offered by public financing agencies (Reserve Bank of Zimbabwe, 2015). Such hybrid finance reduces the risk burden borne by private financiers. This lessens the risk premiums charged and incentivises private financiers to avail more funding for SMMEs, including the stages they traditionally avoid like conceptualisation, capacity building and start-up (Ruete, 2015).

3.5.4 Challenges faced when sourcing funding

Studies have revealed that SMMEs continue to face several challenges when sourcing external funding (OECD, 2018; James, 2015). An OECD (2017) scoreboard study categorised the challenges into internal and external. The challenges arising internally include financial (lack of access to financial markets and resources, business financial knowledge, limited internal savings) and non-financial (for instance, lack of business skills, knowledge, administrative skills such as co-ordination, research, assessment and monitoring).



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The internal challenges are often compounded by the business owners' lack of knowledge to deal with external compliance requirements such as business registration, taxation and meeting loan or credit conditions. The study observed that the challenges faced may however differ by life-cycle stage, size of business enterprise or sector of operation. This study followed up on the findings of the 2015 OECD stock-take study in which questions were asked about the specific challenges faced at different stages of the business life-cycle.

In the earlier study, two main categories of external challenges were identified. These were the policy or business landscape restrictions on one hand and the owners/managers' lack of general business skills, knowledge and experience on the other. The findings of the study suggested that the business landscape restrictions negatively affected business start-ups, growth and the structuring and provision of incentives for investment in SMMEs.

In addition, a lack of access to finance and financing options as well as support for SMMEs mainly affects enterprises in the early to growth stages of the business cycle (OECD, 2016). Other empirical studies identify the challenges as lack of collateral security, lack of trust by financiers due to unproven business models, limited own equity to attract significant external funding, lack of trading history, lack of secure markets and high risk premium that increases the cost of external borrowing (Scoones et al, 2010; OECD, 2016)

Of the challenges typically faced, lack of collateral security is one of the major obstacles. In the case of Zimbabwe, the non- tradability of 99-year lease agreement and offer letters for newly resettled farmers has been found to be a major problem for some time (Bankers' Association of Zimbabwe, 2020) . Banks and other financial institutions have been unwilling to avail enough funding for small-scale agricultural activities unless backed by tradable land lease agreements held by the new farmers. However, government and financial institutions are in continuing engagements to improve the features so that the two documents can be readily acceptable as collateral security and improve lending to the new agricultural SMMEs (Reserve Bank of Zimbabwe, 2018). With respect to business models, start-ups, innovative ventures with unproven business models and micro enterprises face structural problems that restrict them from raising enough external finance under reasonable conditions (OECD, 2018).

The overall effect of the challenges faced is that they determine the types and amounts of funding that the firms ultimately obtain from the market. More importantly, they have the potential to restrict the SMME owners' choice of types of funding since they end up using what they afford or simply what is available on the market. This has a further negative effect of making it difficult to select the most suitable types of funding in light of the specific needs in the life-cycle of a business. As a result, the removal of these challenges is considered to be a major priority for government-sponsored SMME development programmes (James, 2015; OECD, 2016).

3.5.5 The use of funding types in the SMME life-cycle

The selection and usage of different types of funding differs among businesses throughout the business life-cycle. While certain types of funding have been used

across all the business stages, the appropriateness of such funding comes into questions when the nature of the challenges to be addressed is considered. Recall that a major section of this study focuses on whether available finance has been sourced and applied to address the key life-cycle stage problems for agricultural SMMEs. Available empirical agricultural SMMEs financing literature in Zimbabwe does not adequately shed light on this aspect of start-up ventures. Focus is on availability and accessing of credit and the obstacles faced (Karedza et al, 2014; Richard et al, 2014; Baumann, 2015; Malaba, 2014). This focus on improving access to finance is hardly surprising given the subdued credit markets in Zimbabwe linked to macroeconomic challenges.

The literature tends to reflect more on the problems faced by SMMEs without highlighting their specific stages of occurrence and financing measures adopted. Due to that focus, these studies do not explicitly reflect on the appropriateness of funding based on SMME life-cycle failure modes. There is generic reference to problems SMMEs face without reflecting on specific life-cycle trends. Furthermore, discussions on financing needs essentially focus on value-chain rather than specific development stages (Wahab and Abdesamed,2012). There is limited discussion on the basis for financing patterns. For instance, own equity is often cited as typically used at start-up without discussing the extent to which it addresses specific stage failure modes.

Financing the venture inception stage is critical in laying a firm foundation for any new venture. Financing this stage includes getting adequate funding for research and development of product offering, conducting feasibility and viability studies and drawing up business plans and proposals. Several studies have looked at early-stage financing of SMMEs, (Heard and Sibert,2000). A major finding of these studies is the insufficient attention paid by SMME owners to the need to secure adequate funding for feasibility and viability studies. A key reason for this trend is the over reliance on inadequate personal finance sources.

Another reason cited in the studies is the entrepreneurial orientation of SMME owners. Those who have a survivalist orientation often start their ventures solely for subsistence reasons (Kelley, Singer and Herrington,2016). As a result, they do not invest much into research and development, feasibility and viability analyses as well as growth and expansion which are critical in shaping the business model and product

offerings. Whilst governments and development agencies in many contexts offer support, for instance, research grants and business training at this stage, up-take has been constrained by the lack of entrepreneurial mindset of the survivalists (Singer, Arreola and Amoros,2015).

A lot more research focus has been placed on the start-up and survival stage of new venture development. Studies on venture development have identified this stage as the most problematic stage for new entrepreneurs (Singer et al., 2014). The challenges at this stage relate to the processes of actually setting-up or bringing the new venture into existence. Overall, studies show that due to banks regarding agricultural lending as generally riskier than lending to other sectors, small-scale agricultural owners have struggled to raise start-up capital (Gichuki, Njeru and Tirimba,2014). As a result, most start-ups have been funded through personal savings, family and friends' contributions.

Internal funding sources have been grossly inadequate (Eastern Africa Farmers Federation, 2013). The persistence in the use of retained earnings and other internal sources of funding tend to suggest that many small-scale businesses do not transition in any way in the use of the various funding instruments (Kim and Su, 2009). For many small-scale business owners, internal sources constitute a significant permanent component of the capital structure rather than only being confined to early stages as explained in theories on life-cycle financing.

Evidence from a Zimbabwe Government-funded cattle finance scheme shows that with respect to smallholder cattle farming, farmers lack sufficient knowledge of animal husbandry (Nkala, 2016). This survey-based evidence highlights the needs for small-scale farmers in Zimbabwe. The small-scale sector with over 75 % of the national herd was found to be deficient in applying new methods. Such methods include incorporation of superior genetics, improved animal health management and commercialization of cattle rearing. This has resulted in low farmer efficiency. The evidence reveals a need for farmers to be educated on improving the quality of the national herd so as to boost access to markets.

The study suggests that through a cattle finance scheme, small-scale farmers could access start-up loans payable in five years. In addition, as a contract farming arrangement through the Cold Storage Commission, prioritization of herd quality and

access to markets could guarantee better performance. To an extent, this evidence reveals key inception as well as growth stage challenges faced by smallholder cattle farmers in Zimbabwe particularly as a result of the level of knowledge they have. It further highlights their limitations in dealing with problems in the sector.

Several other studies have been conducted in various subsectors of smallholder agriculture in Zimbabwe (ZAS,2019). These have focused on small-scale-tobacco, cotton, coffee, horticulture, poultry and piggery as well as other crops such as maize and soya beans production and financing. For instance, one such study (Agribusiness Systems International, 2015) analyzed the constraints and opportunities for contract farming as a financing arrangement. The study assessed how contract farming could boost produce quality. The study established that contract farming could be used by agricultural SMMEs to address financing constraints impacting venture start-up, input sourcing and securing market access. Other studies that have shown the growing importance of contract farming include Freidrich-Ebert Stiftung, 2002; Moyo, 2014; Malaba, 2014 and Scoones, et al., 2017.

Similar trends were found in other parts of the world. For example, a case study of SMEs financing practices and accessing bank loans in Libya looked at the practices at start-up and mature stages (Wahab and Abdesamed,2012). Based on a sample of 76 SMEs, they focused on the demand for finance as influenced by the stage of development for the SMEs. Conclusions also confirmed the worldwide pattern of initially relying on personal or internal sources at the early stages.

A study conducted in Croatia by Calopa, Horvat and Lalic (2014) focused on start-up companies, the types and potential sources of financing. The survey results showed that 83% of Croatian start-ups were financed informally including self-financing, and from relatives and friends, with the types of finance used evolving with the development of the venture. While consistent with the general global findings, the study did not explain the motivations and appropriateness of funding sources in addressing the venture life-cycle challenges.

With a focus on business readiness for capitalization as part of a process to avail sustainable finance for early stage small business, Richard et. Al, 2014 conducted a study in the United States of America. The study aimed at finding ways to help entrepreneurs finance businesses sustainably. Key amongst its findings was that most

of the surveyed small businesses' start-up funding came from personal savings, family and friends with debt financing (mostly bank loans) as the next common source. A critical finding was that despite some owners having expertise in their fields, they however lacked knowledge of compiling relevant documents for securing traditional external finance. These documents include financial statements and business plans. Accessing a combination of financing schemes and financial advisory services was found to be vital for small business success.

For those agricultural SMMEs that survive the inception and start-up stages, research evidence has shown that they encounter serious problems during growth and expansion stages. For instance, one report estimated that approximately 15 percent of production in Sub-Saharan Africa is wasted between farm gates and consumers (Brightface Enterprises,2014). This was attributable to a lack of adequate marketing infrastructure.

Agricultural SMMEs are the most affected and this explains why they struggle to expand. Inadequate financing limits efforts to increase production, acquire transport systems, research into new markets and broaden existing ones. Furthermore, limited access to affordable funding has been cited as a major impediment to research into crop and animal genetics (Malaba, 2014). Such research is vital for boosting crop and animal health which is important for quality certification especially in export markets.

In Zimbabwe, support services like those offered by the Extra Project (2015) thus have tried to redress this problem by offering targeted support to the smallholder farmers through improving farming practices and developing better linkages to markets (Government of Zimbabwe and DFID,2015). The improvement of agricultural SMME productivity in crop and livestock production requires a holistic approach. Such an approach synergizes improved agronomic technologies, effective extension services, conducive market environments and public goods such as health, education and training (Government of Zimbabwe and DFID,2015). The evidence reveal that agricultural SMME owners need to harness a host of privately financed consortia with expertise in supporting agricultural development projects. This also entails accessing financing and being capacitated in terms of market identification, deal making skills, transaction skills, quality control and risk management (James, 2015).

Financing of SMMEs at maturity and decline stages have not been discussed extensively in literature. This owes to the concentration on the venture inception and survival stages. Levie and Lichtenstein (2010) highlight that the limited discussion arises from the fact that most venture life-cycle models put forward analyse the initial stages, ignoring maturity and decline phases. However, some literature explore financing of these latter stages of venture development (Kelley et al.,2016; Kim and Suh,2009). The types of financing that are cited include acquisitions, market research and development finance, management buyout, mergers and acquisitions and private placements. These types of financing focus on addressing venture stagnation and outright demise through financing development of new markets and the injection of new managerial ideas to avoid total demise.

While the above stage-specific financing patterns have been observed, in most developing countries however the literature is less revealing. Instead, evident from the several empirical studies cited is the focus on the obstacles faced, with limited access to finance, the lack of collateral security and limited market development as key obstacles (Karedza et al.,2014) The bulk of the studies however do not discuss the application of finance at specific stages of the SMME development.

Most studies are not explicit about life-cycle financing patterns for SMMEs in Zimbabwe. Even more comprehensive studies such as the FinScope SMMEs do not highlight the life-cycle financing patterns. For instance, a Government of Zimbabwe and FinMark Trust (2012) describes the access and broad usage of funding but does not explicitly describe life-cycle financing. Findings of the study were that 43 percent of SMME owners in Zimbabwe work in agriculture, 33 percent in wholesale and retail and 9 percent in the manufacturing sector. While this study reflected on the key challenges SMMEs face and the main financing preferences, it did not discuss stage-specific problems and link them to financing patterns, which is the subject of this study. The strategic choices necessary to address key stage problems are not dealt with in most of the empirical literature available.

The main observations of literature on agricultural SMMEs in Zimbabwe is somewhat mirrored by findings elsewhere in the world. Several empirical studies in other

countries also highlight SMME access to finance as a major challenge. For example, studies by Ruete, 2015 and IFC, 2011 have explored evidence on SMME financing globally. They have investigated the application of theories such as the pecking order and life-cycle financing as they relate to determination of the capital structures of the firm. They point to a growing SMME financing gap, but often not identify the stage-specific financing gaps and typical sources used. This has led to growing search for innovative financing arrangements. The SMME financing pattern found is common in different sectors of the economy including agriculture.

Prasad, Gary and Bruton (1997) studied the long-run strategic capital structure of firms. The study aimed at establishing, in the face of a challenging business environment, the strategic goals of owners and how they influenced their selection of capital structure. The basis of this study was the longstanding quest to explain how firms choose their capital structure, dating back to Miller and Modigliani's (1976) pioneering work. This study followed after Myers (1984) had concluded that there was no clarity as to why businesses make financing choices the way they do. The study concluded that business owners manage their ventures in a strategic manner (Prasad et al.,1997). The financing strategy often reflects the overall business strategy. This conclusion was arrived at given that business owners seeking to maintain control of the business were found to rely more on internal as opposed to shifting to external sources of financing as the venture developed throughout the stages.

The studies thus observed that business ventures adjust their capital structures gradually through the stages of their life-cycle. This was consistent with both the financial life-cycle and pecking order theories. However, there is debate on what motivates selection decisions and whether they target at addressing failure modes at each stage. A more comprehensive study conducted for the European Investment Fund investigated SME financing patterns in 28 European countries (Moritz, Block and Heinz,2015). This was done as a cluster analysis of 12 726 SMEs. The results indicated that different SME financing patterns exist in the European zone. These include mixed-financed, state-subsidized, and debt-financed, trade financed and internally financed SMEs (Moritz et al., 2015). This reflected the mix of financing by firm, product and country characteristics.

Yet another study focusing on SMME life-cycle financing looked at the selection of capital structure across the life-cycle stages (Menike,2015). The study surveyed financing of 300 SMEs in Sri Lanka in 2015 based on hypotheses drawn from pecking order and life-cycle theories. Based on regression analysis, the study corroborates the significant influences of key variables from the two theories on the capital structure of SMEs.

The variables include age, size, and ownership structure and information asymmetry. The older and larger the firm, the more they explored external long-term finance and the relatively easier it was for the firm to access such finance. The study also found industry-specific characteristics as key intervening variables in the sourcing and application of finance. The effects of such industry-specific characteristics were quite strong in the agriculture sector (for example, seasonality, climatic conditions, disease and pest prevalence, soil fertility and productivity as well as skills set of owners).

3.5.6 The main challenging stages in the venture life-cycle

Several empirical studies have focused on investigating the stages where small businesses encounter the most significant challenges. Such studies have assisted in profiling the life-cycle stages and enable prioritising financing and management efforts. Empirical studies in entrepreneurship (Storey 1994; Singer, Arreola and Amoros,2014) highlight challenging stages in venture development. They highlight the stages at which the majority of new businesses fail as well as the stages where entrepreneurs find it easy to sail through.

Besides looking business survival rates in terms of how many out of a cohort of businesses, will still be existing after a given number of years, studies such as GEM also highlight the most challenging stages. This helps in reflecting on the reasons for a particular stage being more challenging than others, further assisting in the prioritization of such difficult stages. Empirical studies reveal that the setting up stage is the most difficult stage as first-time entrepreneurs face the real challenges of putting together the necessary infrastructure and face the market. Other stages that have been found to be challenging are growth and expansion especially in difficult macro-economic context (James, 2014; Malaba, 2014).

3.5.7 The main operational problems faced at each life-cycle stage

While several empirical studies have been conducted on the main challenges that small businesses face, few studies have attempted to systematically analyse and discuss the challenges in terms of the specific stages at which they are most pronounced. Throughout a business life-cycle, a variety of failure modes are experienced (Lipol and Haq, 2011, Burke, 2018). A failure mode is the way or manner in which something might fail (Salamzadeh and Kesim, 2015). When business owners consider new venture development as a systematic process, they are able to identify specific failure modes or challenges at each stage. This assists them in developing proactive interventions to resolve such failures or mitigate their negative effects.

In the context of new venture financing, the application of the concepts of venture life-cycle and venture failure modes has been largely confined to venture-capitalists (Sassmannshausen, Maritz and Frederick, 2011). Venture capitalists have mainly analyzed new ventures and offered financing at the initial stages with further stage financing dependent on achievement of specific performance milestones (Brachtendorf and Witt, 2006). The idea of owners and managers themselves rather than financiers initiating a careful stage-based risk analysis is not widely evident in literature on new venture financing. Yet, an adoption of the approach allows business owners to have a firm basis for careful selection and use of targeted financing as is required for agricultural SMMEs in Zimbabwe. Based on an analysis of stage-failure modes, entrepreneurs can source appropriate, adequate and sustainable finance targeting specific stage problems.

In the bulk of literature on entrepreneurship, venture failure tends to be generally conceptualized in terms of the end result of a process whereby success is not achieved (Lanjesi, 2005; Singer, Arreola and Amoros, 2014). However, failure has many definitions, which include the opposite of success, degeneration, shortfall or gap between vision and reality (Lanjesi). Rather than only understanding it from the endpoint (as an event), failure actually may be viewed as a process.

In this case, a system gradually deviates from the envisaged path or goal (Lanjesi, 2005, Gulst and Maritz, 2011). From this standpoint, venture failure occurs when the operational levels and standards of an existing business gradually deviate from the desired patterns and objectives. For example, inadequate marketing is a typical failure

mode at the growth and expansion stage. It may be so critical as to cause the early stage demise of a new venture (the end-state which is the well-known failure scenario (Lanjési, 2005). Failure actually looms at every stage of venture life-cycle. If such failure is diagnosed early, it can provide an opportunity for learning, given that prior failure shapes future strategies (Gulst and Maritz,2011).

Venture failures are sometimes caused by factors which can be controlled by entrepreneurs (Nobel, 2011).The lack of in-depth research and development and poor planning are typical major causes of venture failure which the owners or managers can greatly influence. Knowing what may go wrong may minimize risk of failure, in most cases through putting together appropriate [financing] resources to address those failures (Bymolt and Kleijn, 2014). In the context of this study, “failure mode” refers to the manner through which an agricultural SMME’s development deviates from the desired or envisaged path. This includes the process dynamics of failure and not only the end state.

Due to the conceptualization of failure, most studies on venture failure have tended to rely on historical accounts of failed entrepreneurs as well as statistics and survival rates (Singer, Arreola and Amoros,2015). This study deviates from that traditional approach and investigates failure modes in existing agricultural SMME ventures. This pre-emptive approach assists entrepreneurs in focusing on securing appropriate targeted stage financing.

At each stage of a venture life-cycle there are many potential venture failure modes. Table 3.3 below provides a few examples of the typical stage failure modes as summarized from literature (Bymolt and Kleijn,2014; Salamzadeh and Kesim,2015; Singer, Arreola and Amoros,2014). The Venture life-cycle model adopted for this study is a basic version with six stages (Conceptualisation/inception-setting up/survival-growth-expansion-maturity-decline).

Other versions as explained earlier reflect more on the dynamics of venture development by including more stages capturing the relative speed of venture development. For instance, the second step may be split into start-up and survival stages as well as having an expansion stage as a distinct stage from the growth stage (Nadeau, 2012). The significance of identifying the failure modes is that they may be

linked to the appropriateness and adequacy of the typical financing sources often used. This is discussed further later in this chapter. A stage-by-stage discussion of the typical failure modes is given below.

Table 3.3: Venture Life-cycle stages and typical failure modes

STAGE	SELECTED TYPICAL FAILURE MODES
1. Inception	Unattractiveness of business idea; poor product offering; Lack of feasibility and viability; Limited R&D; poor business modelling/planning; inadequate resourcing
2. Start-up and survival	Cash flow challenges, not breaking even, inadequate management systems, unrealistic targets, poor product pricing, poor pests and disease control, low productivity, water problems/droughts, poor farm infrastructure, lack of inputs and access to credit and inadequate extension services.
3. Growth and Expansion	Low yields, low capacity utilization, poor produce demand, stock outs, lack of competitive advantage, supply inelasticities, poor quality control, lack of market information, poor access to markets, rising operational costs.
4. Maturity	Lack of growth opportunities; declining productivity; sales stagnation; falling price competitiveness; No new products or innovations, high stock densities and resources degradation.
5. Decline	Shrinking/loss of key markets; Inability to re-launch products; product obsolescence; rising co-ordination costs; waning profitability, high stock densities and resources degradation.

Source: Author's own compilation based on various articles, 2020.

As reflected in literature and summarized in Table 3.3 above, at the inception of the agricultural venture, and indeed for many other new ventures in other sectors, there are typical problems or failure modes that are encountered. This stage is when the whole idea of the agricultural business venture is conceptualized. The stage ends when the new venture is established. It is a phase where the strategic focus of the owners or managers is to formulate the business idea. Typical failure modes include poor business idea development, poor product offering, feasibility and viability problems as well as inadequate resourcing (Gulst and Maritz, 2011; Perenyi, et al., 2008).

Adequate research, business planning as well as product conceptualization should take place with the owner providing the critical input for the idea to materialize into a flourishing business venture. A lot of process issues go into this stage and require

appropriate and adequate types and sources of funding to address the problems. For instance, adequate feasibility and viability assessments need to be conducted at this stage. Typically, many micro, small and medium sized ventures fail due to lack of adequate feasibility and viability tests and subsequently as a result of poor planning, among other failure modes (Bymolt and Kleijn,2014; Gulst and Maritz,2011).

The start-up stage may be identified as a transitional stage when the owner transforms the idea by setting it up as an existing business venture (Scott and Bruce,1987). It ends when the business has managed to break-even. For agricultural SMMEs, the major failure modes typical at this stage include resourcing problems, inadequate infrastructure and inputs, inadequate accounting systems, unrealistic targets; wrong product pricing, lack of security of tenure so as to use as collateral to access loans, inadequate animal and crop husbandry, poor stockmanship, grazing management and business management skills (Nkala,2016). What is critical about these failure modes is that they occur at a very sensitive and fledgling stage when the business venture is still battling to survive. The owner has to be extremely careful with decision making including sourcing the necessary funding and management support to navigate and stabilize the venture. It is not surprising that this stage is cited in literature on venture failure as the most problematic stage of venture development (Nadeau, 2012).

Once the agricultural venture has survived the startup stage, the owner sets it on a growth and expansion path (Perenyi et al,2008; Scott and Bruce,1987; Perenyi et al.,2011). This stage is mainly characterized by increased production and marketing efforts targeted at growing existing markets as well as venturing into new markets. In this study growth and expansion are treated as separate consecutive stages. The stage strategic focus for growth phase is increased production and increasing sales from the same facility established at previous stage. Expansion entails acquisition of new infrastructure, land and branches or sites. It ends with attainment of a desired size or scale of operations. However, poor infrastructure accounts for up to 15 percent of wastage of production that takes place in Sub-Saharan Africa between farm gates and consumers (Brightface Enterprises,2014). This limits the SMME growth prospects.

For enhanced market access, adequate financial and other resources including adequate infrastructure are needed. To an extent, some of the lack of growth has

been explained in part by the desire to remain small and retain control amongst family owned business as well as a subsistence orientation (for example, as discussed by (Geneste and Weber, 2011). However, essentially a lack of entrepreneurial ability stifles growth. Resultantly, the small agricultural ventures fail to satisfy markets, get plagued by poor quality stock, poor disease control, product supply in elasticities, stock outs, lack of a competitive advantage, rising operational costs, undercapitalization and poor cash-flows (Nkala,2016; Richard et al.,2014).

Other agricultural venture growth and expansion failure modes identified in literature include absence of planned implementation of breeding and stock production, unsustainable production practices, low levels of retained earnings that are reinvested into the business, chronic underpayment by unscrupulous dealers, inability to negotiate the highest possible price based on market demand, heavy reliance on middlemen and low management input (Nkala,2016).

Of particular concern are the lack of proper management scheme with key focus on plant and animal genetics, animal health and nutrition all affecting the quality of the product on the market. This is worsened by not monitoring and responding to production and marketing trends. Productivity is critical for business growth in the smallholder farming sector, but it is generally low owing to the combined effects of natural, socio-economic challenges and poor farming practices (Government of Zimbabwe and DFID,2015). The natural challenges include unreliable rainfall patterns owing to climate change, low soil fertility and the prevalence of pests and diseases. The socio-economic challenges include poor access to inputs, physical infrastructure, skilled labour, credit unavailability, poor extension services and lack of access to output markets.

The maturity stage is typically characterised by business sales stagnation with no new markets or growth opportunities. At this stage, the venture has established a sizeable and stable market position and positive cash flow and a management team. The stage will end when the venture is no longer sustaining its position and sales start to decline (Richard et al.,2014). Failure modes are in the form of declining productivity, sales stagnation, falling price competitiveness and lack of creativity and innovativeness (Bymolt and Kleijn,2014; Lanjesi,2005). Existing customers get fed up with the product offering while new or potential one are discouraged by lack of product differentiation

and uniqueness. Herd- behaviour characterises the activities of owners and managers as they struggle to offer some new products on the markets and follow copy other.

Every dying business sends out certain warning signs before the eventual collapse. For the observant entrepreneur, this disaster is avoided by taking certain strategic measures (Lanjési, 2005). The ultimate demise of a business is not as abrupt as reflected in most literature on venture failure. Venture failure takes the form of gradual drift away from set goals and objectives (Lanjési, 2005; Gulst and Maritz, 2011). A number of venture demise modes cited in literature include those arising from managerial negligence. Such negligence manifests itself in not paying adequate attention to the business, failure to cover production costs and defaulting on loan repayments, failing to expand markets, inability to meet orders, ballooning co-ordination costs, waning profitability, declining product quality standards and losing major clients (Richard et al,2014; Lanjesi,2014; Gulst and Maritz,2011).

From the above outline of venture failure modes, it is apparent that each venture development stage is beset with some critical failure modes. Entrepreneurs have to identify and address them. This identification is important if appropriate and well sequenced financing interventions are to be identified to match and address these challenges. A criticality analysis of the venture stage failure modes by owners is therefore necessary to guide prioritizing targeted financing interventions.

3.5.8 Appropriateness of SMME life-cycle funding used

While some empirical studies have been conducted to investigate access to finance for SMMEs, there is only growing interest in investigating the appropriateness of the funding that SMMEs, particularly in agriculture are actually accessing and using. However, the inappropriateness of funding used is only implied in a number of studies that focus on the challenges SMMEs face (Nadeau,2012). Across all stages of their life-cycle, SMMEs require access to appropriate sources of financing for their creation, survival, and growth (OECD, 2018). OECD studies (OECD, 2017; OECD, 2018) observe that although SMME's access to and use of traditional bank finance largely recovered after the financial crisis in OECD countries, market failures and structural challenges remain. These include information asymmetries, high transaction costs in

servicing SMMEs and lack of financial skills and knowledge among small business owners. All these conspire to make appropriate funding of SMMEs a challenge.

The studies conclude that there is a great need to broaden the range of appropriate financial instruments available to SMMEs and entrepreneurs in order to address specific financing needs in different scenarios. As a result of the observation about the inappropriate funding generally used by SMMEs, the OECD now promotes adoption of High level principles on SMME financing. These include (i) strengthening SMME access to appropriate finance and (ii) supporting the diversification of their financing sources.

3.5.9 Major gaps in agricultural SMME financing

The financing gap for agricultural SMMEs is a global phenomenon. Most of the empirical studies carried out report the existence of financing gap for SMMEs (James, 2015; Karedza et al, 2014; Malaba, 2014). Other studies include comprehensive studies done by major global SMME development financing stakeholders (Asian Development Bank, 2015) and the Eastern Africa Farmers Federation, (2013). In addition, these studies found availability and access to affordable agricultural financing sources as major impediments to SMME development in the regions surveyed. The availability of financing sources also tends to differ by venture stage as it does by size. For instance, a study for the US Department of Commerce shows that following the global financial crisis, start-ups reported availability of and access to suitable finance as a major cause for failure (Baily et al., 2010).

3.5.10 Best practice financing of agricultural SMMEs

The third objective of this study relates to identifying best practice financing of *agricultural SMMEs through their life-cycle*. The associated question searches for financing approaches that are considered best practices in literature on SMME financing in Zimbabwe and globally, taking cognizance of the determining factors. Most of the approaches have been recommended and, or applied in other parts of the world based on their impact in successful cases. Good practices for financing agricultural SMMEs are recommended based on the results of several studies conducted in other parts of the world (OECD, 2015). Table 3.4 shows suitability of

some alternative financing instruments for different firm profiles and stages as suggested by the OECD.

Table 3.4: Suitability of alternative funding instruments for different firm profiles and stages

	Type of financing instrument	Profile and stage of firm
Low risk/ return	Asset-Based Finance <ul style="list-style-type: none"> • <i>Asset-based lending</i> • <i>Factoring</i> • <i>Purchase order finance</i> • <i>Warehouse receipts</i> • <i>Leasing</i> 	<ul style="list-style-type: none"> • Start-ups • Firms with limited credit history and lack of collateral • Fast growing and cash-strapped firms • Firms with solid base of customers but high investments in intangibles • High-risk and informationally non-transparent firms • Firms changing their capital assets frequently <ul style="list-style-type: none"> □ Producers and traders of commodities
Low risk/ return	Alternative Debt <ul style="list-style-type: none"> • <i>Corporate bonds</i> • <i>Securitised debt</i> • <i>Covered bonds</i> • <i>Venture debt</i> • <i>Private placements</i> • <i>Crowdfunding (debt)</i> 	<ul style="list-style-type: none"> • Large to mid-size firms with stable earnings and relatively low cash flow volatility • Firms responding to reporting requirements linked to issuance • Firms undertaking investment or seizing growth opportunities • Firms that do not wish dilution of ownership and control • Smaller companies with limited visibility in public markets (<i>private placements</i>) <ul style="list-style-type: none"> □ Firms lacking collateral or credit history (<i>debt Crowdfunding</i>)
Medium risk/ return	“Hybrid” Instruments <ul style="list-style-type: none"> • <i>Subordinated loans/ bonds</i> • <i>Silent participations</i> • <i>Participating loans</i> • <i>Profit participation rights</i> • <i>Convertible bonds</i> • <i>Bonds with warrants</i> • <i>Mezzanine finance</i> 	<ul style="list-style-type: none"> • Young high-growth firms seeking cheaper expansion capital than VC and less dilution of control • Established firms with emerging growth opportunities • Firms undergoing transition and restructuring • Firms seeking to strengthen capital structure • Firms with well-established and stable earning power and market Position
High risk/ return	Equity Instruments <ul style="list-style-type: none"> • <i>Business angel investments</i> • <i>Crowdfunding (equity)</i> 	<ul style="list-style-type: none"> • Firms in their seed and early investment stage • Innovative ventures requiring investment and business-building skills



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Private equity <ul style="list-style-type: none"> • <i>Venture capital</i> 	<ul style="list-style-type: none"> • Firms in their seed, early and late investment stage • High-growth-potential firms, with capacity for high returns in a short time frame
<i>Other private equity</i>	<ul style="list-style-type: none"> • Mature businesses undertaking restructuring or ownership change • Distressed businesses with potential for rescue
Public equity <ul style="list-style-type: none"> • <i>Specialised platforms for public listing of SMEs</i> 	<ul style="list-style-type: none"> • Young, innovative and high-risk small firms • Firms with highly structured governance and management systems, and extensive disclosure

Source: OECD (2015)

Adoption of such practices however needs to take into account the unique context of the Zimbabwean entrepreneur. However, the financially constraint environment actually could drive SMME owners to initiate or be more active in the search for innovative and sustainable venture financing. This section takes the Zimbabwean situation into context and summarizes the sustainable financing approaches suggested in literature.



Some key empirical studies suggest sustainable financing approaches that may be in use in some countries but partly or not yet adopted at all in most developing countries include Meyer,2015; Laeven, Levine and Michalopoulos,2015 and Scoones,2017. These stress the key role that financial innovation plays in sustaining economic growth. They further argue that it is in the best interest of financiers to continue to innovate in their offerings and credit screening measures as a way of enhancing their profits. Entrepreneurs on the other hand are better off if they adopt better financing ways and technologies that assist them in producing better quality goods and services. For both SMME owners and their financiers, innovation is vital to sustainable financing for enterprise development.

Meyer (2015) reviewed SMME financing with the aim of suggesting innovative ways to boost access to financial services for agricultural SMMEs especially in peri-urban and rural Sub-Saharan Africa. The main reason for Meyer's work was to go beyond the narrow focus of most studies that dwell only on credit and the perceived financial constraints SMMEs face. Amongst the key innovations that Meyer views as having

great potential if fully adapted are savings groups and the use of information and communication technology (ICT). While such innovations have been faster in East Africa, expansion and replication were lagging behind in other parts of Sub-Saharan Africa. The great impact of savings groups lies in enhancing local intermediation that is buttressed by locally-generated safeguards. Participation in these groups adds another financing source that agricultural SMMEs can easily tap into. Furthermore, savings groups make it easy for SMMEs to establish linkages with financiers.

Richard, et al, (2014) suggests an initiative involving formation of small groups of about 10-20 members of mainly small business managers. Such groups meet regularly to learn management skills from their peers and gain business and personal connections that lead to commercial opportunities. While variants of this initiative may already be in use in Zimbabwe (for example, through Farmer's Associations) up-scaling of these initiatives particularly amongst peri-urban farmers may boost the level of knowledge and access to finance. The highly competitive nature of agricultural SMMEs due to survival mode has often impeded development or adoption of such initiatives. For instance, the lack of social cohesion amongst resettled small-scale farmers has been cited as a major stumbling block in their ability to benefit from the concept of group lending (James, 2015).



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With the key failure modes cited in literature at the inception stage and growth and expansion, SMME owners could benefit from financing and support measures aimed at addressing such problems. They could actively seek research grants and launch a systematic effort to identify angel investors. Boosting such finance could address feasibility and viability failure modes at inception stage as well as improve research on markets, product quality, industry trends, product innovation and differentiation at growth and expansion stages.

With the lack of financial skills and knowledge about obtaining external financing amongst many early stage entrepreneurs, such group co-ordination could boost agricultural SMME owners' confidence. According to Richard et al., (2014), entrepreneurs can learn how to approach financiers with better knowledge and analysis of their specific financing requirements. They can further benefit from co-

ordinated requests for stage-specific financing requirements including easier access to financial counselling services.

Additional measures that may be adopted and up-scaled in Zimbabwe include the use of capital through counselling, equipment sharing, clearing houses, and membership of small-scale agro-based enterprise associations. As suggested by Richard et al., (2014) capital through counselling by capital coaches, as well as clearing houses are initiatives that can assist agricultural SMME owners in finding appropriate finance.

Financiers and financial sector authorities in Zimbabwe may need to deepen small business owners' understanding of financing experiences. This could boost the owners' detailed appreciations of the specific needs of their ventures and improve on financing decisions. Such an effort would also help venture owners to seek life-cycle financing products and advice. Furthermore, this could assist financiers to design appropriate financial products and services that address venture specific needs.

As observed by Meyer (2015), high collateral demands by most financiers in Zimbabwe weighed down SMME efforts to secure adequate funding for expansion. Yet, the world over, cases of successful agricultural SMME financiers that have not used Zimbabwean-style collateral system exist. This means that small-scale farmers and agribusinesses can lobby for more innovative and search for collateral substitutes such as group lending, peer monitoring and co-guaranteeing. These have been observed to produce better repayment results. Key areas of innovative and sustainable agricultural financing that deserve greater exploring include lending against intangible collateral, such as accounts receivable or intellectual property as well as insurance in the agriculture sector (Asian Development Bank,2015).

3.6 Literature summary, gaps and contribution of the study

Having considered the available literature on SMME and also specifically on agricultural SMME financing, the following summary is drawn which exposes the major literature gaps. The study adds to the literature particularly on the use of life-cycle funding and the suitability of such funding in resolving key challenges negatively affecting the growth of the SMMEs. Rather than concentrating on environmental challenges to venture financing, this study reviews literature with a focus on the

responsibility of the owners and managers for proper financing of their enterprises. It focuses on whether they have adequate knowledge of venture development and financing? It is assumed that sufficiently knowledgeable entrepreneurs are able to identify stage-specific problems. They use that knowledge to ensure that their ventures are suitably financed.

This study does not merely focus on financing factors or the role of financiers as is typical with most studies. While acknowledging existence of environmental forces, it assesses how venture owners and managers respond to these forces and use available finance to address venture development problems.

3.6.1 Literature summary

Available literature largely discusses availability, access to finance and the main obstacles to access to finance. Globally, literature reveals that while there is a variety of financing sources and instruments on the market especially in developed markets, availability of such funding particularly for agricultural SMMEs is limited in developing markets especially in financially constrained contexts. Given the unique and important nature of small-scale farmers and agro-based SMMEs in driving development and boosting livelihoods for both rural and urban poor, their specific financing sources and instruments are discussed. These include both simple and highly complex and dynamic combination of resource mobilization, both monetary and non-monetary, savings, subsidies, credits from personal, governmental, banking and multi-lateral financiers (Cabannes, 2012)

Availability of financing sources however is not uniform across different jurisdictions in the world, primarily due to differences in the development of financial systems, extent of financial inclusion for SMME owners as well as gender dynamics. There is also recurrent observation in literature that a majority of the studies on small business financing has tended to focus on the source and amount of financing and constraints in financing agricultural SMMEs (Adetola, 2010). This tends to reflect more on the supply-side than the demand-side of the financing market.

3.6.2 Literature Gaps and contribution of this study

Researches done to date do not deepen understanding of the financing experiences, decisions, and detailed stage-specific needs of specific entrepreneurs and whether finance sourced is informed by analysis of stage-specific needs. For this reason, some researchers have recommended that greater research effort be done focusing on the financing experiences of SMMEs and whether financing is sourced and targeted at specific venture stage challenges (Richard et al., 2014, Meyer, 2015).

Even scarcer in Zimbabwe is literature on the appropriateness and extent to which such financing strategies address the critical life-cycle problems faced at each stage. One of the key recommendations regarding scaling-up of access to finance for agricultural SMMEs is that studies be done on both the supply and demand for agricultural finance at country level. This should address the needs of the different categories of agricultural SMMEs beyond simply identifying availability. This study closes this gap by investigating agricultural SMME financing beyond availability of funding.

The key role of SMME financing as a key strategic input to venture development is acknowledged. Lack of access to appropriate financing is also recognised as a major cause of bottlenecks in the venture development process, often limiting the owners' capacity to address stage specific risk factors, exploiting opportunities and expanding activities. The fact that lack of access to appropriate and affordable finance is reported frequently in many parts of the world as an obstacle attests to the global nature of this constraint in SMME development.

While available literature discusses the challenges or obstacles faced by agricultural SMMEs, the literature does not however explain how such challenges influence the selection of funding and the appropriateness of the funding used. This study addresses that gap by extending the literature to cover the effects of challenges on the appropriateness of the funding used by agricultural SMMEs. The success of agricultural SMMEs in achieving the goals of the FTLRP will crucially depend on their ability to secure appropriate funding.

While the challenges faced by SMMEs are discussed, they are not analysed specifically from a life-cycle perspective. This study adds to the literature by including

a venture life-cycle as a basis for the analysis. This enables a detailed stage-by stage approach to understanding the challenges as well as appreciating the key problems per stage which are militating against attainment of the FTLRP goals envisaged. The analysis of the challenges does not include a detailed risk analysis as a basis for the discussions provided.

Given the general focus of literature in Zimbabwe, studies beyond the selection and obstacles to financing are necessary. For instance, showing that own finance is usually used at venture inception stage does not reflect whether such finance is the most appropriate way of addressing the typical problems at that stage. Applications of specific financing sources and instruments have critical implications for overall survival and growth of a venture.

Available finance has to be targeted where it addresses the greatest developmental challenges for agricultural SMMEs based on typical stage failure modes occurrence. Given this gap in literature this study will assess both the pattern of financing agricultural SMEs, and go a step further to assess whether knowledge of failure modes guide the sourcing and application of the limited agricultural SMME finance in Zimbabwe. The main findings, discussions, implications are important inputs into the design of this study as outlined in the next chapter and in view of the objectives set out in chapter one.

Studies on the main options used track the level of adoption of newer, alternative and more innovative financing options and instruments as opposed to traditional instruments such as own funding and bank lending. A gap in literature exists especially in explaining the level of usage of more innovative financing instruments by SMME owners in developing countries and specifically in financially-constrained context where innovative ways can help in addressing funding challenges.

This study departs from the common approach of looking at agricultural SMME financing which focuses on the role of financiers and obstacles to accessing financing. The predominantly supply-side approach tends to ascribe SMME financing problems to externally-generated constraints such as the cost of capital, high collateral demands, and the objectives of financiers. Whilst acknowledging these key constraints in the entrepreneurial ecosystem, this study however departs from that focus and

belongs to the body of inquiry interested more on the demand-side for SMME financing. It is based on the premises that SMME owners and managers are also active rather than passive role players in decisions regarding ensuring appropriate financing of their ventures. This emphasizes the importance of owners' or managers' in-depth appreciation of the specific agricultural SMME life-cycle dynamics as the basis for appropriate financing decisions, in spite of the environmental constraints.

The approach in this study is premised on a growing concern that agricultural SMME owners and managers need to have a good level of awareness of finance and available options which helps them to conceptualize, start and finance agricultural ventures. They also need to take the lead in properly conceptualizing new ventures and anticipating specific problems at each venture development stage. This concern anchors a growing but still limited body of research (for instance some IFC, OECD and country-level studies have investigated this) given the predominant focus on the role of financiers in available literature.



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CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 Introduction

This chapter describes the research methodology for the study. Section 4.2 describes the nature and type of the research, the underlying philosophy, the value of the mixed-methods used and research sequencing. The section also describes the population of study and sampling methods and strategy followed. In section 4.3, the data collection methods and instruments are described. Section 4.4 explains the data analysis methods and procedure employed. In section 4.5 research ethical considerations are described with section 4.6 providing a brief on the measures taken to enhance the integrity of the data. Section 4.7 summarizes the chapter. Each of these components of the research methodology is described in some detail below.

4.2 The nature of the study

The study explored the sources and instruments available for financing of agricultural SMMEs in Zimbabwe and then evaluated the pattern of life-cycle financing adopted by owners and managers. The exploration part required owners or managers of agricultural SMMEs to demonstrate their knowledge of agricultural SMME financing by indicating the sources and instruments available. This also included indicating which of the financing sources and instruments were typically used by these SMMEs. The reason for this exploration is that the owner's knowledge of how a business needs to be financed is as important as the supply of such finance from the market. Studies on SMMEs in Zimbabwe tend to focus more on exploring the supply side of SMME finance.

After exploring the available financing sources and instruments, the study evaluated the life-cycle financing of the SMMEs by their owners or managers. This evaluative component was used to assess the application of the most appropriate financing sources, instruments and mechanisms given the level of knowledge explored. It uses rigorous social research methods to assess social programmes in a variety of areas (De Vos, Strydom, Fouche and Delport,2012; Cresswell, Plano and Garrett,2008). The focus of the evaluation was to assess the pattern of life-cycle financing for agricultural SMMEs as determined by their owners and managers. This included how appropriate

and targeted funding was for each life-cycle stage, considering the financing instruments used and the specific nature of the life-cycle stage problems identified. The importance of such a study is that SMME finance is scarce in Zimbabwe given the current economic challenges and therefore available finance needs to be efficiently and effectively allocated for the greatest impact.

4.2.1 The cross-sectional nature of the survey research

A cross-sectional survey research design was adopted since there was need to collect data from a wide range of participants at the same time. The study was aimed at establishing agricultural SMME life-cycle financing patterns across the spectrum of owners and managers as well as obtaining expert assessments by agricultural SMME financiers at the same time. While agricultural SMME life-cycle financing is a time-series phenomenon, the relevant time series data was not available. This is because agricultural SMME owners often do not keep accurate records on financing patterns from project inception to maturity phase.

A problem of forgetting compounds the problem of quality of time series data. As a result, similar studies on life-cycle financing of SMMEs have used cross-sectional rather than time-series data (Gulst and Maritz, 2015; Menike, 2015; Salamzadeh and Kesim, 2005). This is the approach considered appropriate also for this study. Cross-sectional survey data was therefore generated from the responses of agricultural SMME owners and managers as well as financing executives as they reported on agricultural SMME life-cycle financing from their experiences and judgments.

4.2.2 The philosophical foundation of the study

The study took a naturalistic approach hinged on assessing the patterns of agricultural SMME life-cycle financing phenomenon as it naturally occurred through individual financing behaviours of the owners and managers based on their knowledge. It did not attempt to have a controlled manipulation and measurement of agricultural SMME life-cycle financing variables as would be the case in interventionist studies. Instead, it combined the evaluation of agricultural SMME owners and managers as stakeholders (stakeholder evaluation) and how they utilised financing sources (utilisation-focused) to address typical agricultural SMME life-cycle challenges.

Given the nature of the research questions, the study combined positivist and interpretivist approaches. The first research question, “*What are the main sources and instruments that are available and used by owners and managers of agricultural SMMEs to finance venture development in Zimbabwe?*” had a positivist foundation. It was asked on the basis that the life-cycle financing sources and instruments used by agricultural SMME owners could be identified and verified with related factual numeric data about them established.

The second research question had two parts. The first part sought to determine how the financing sources and instruments were applied at the different stages of the life-cycle of agricultural SMMEs. The underlying philosophy was that at each stage, it was possible to identify which financing sources and instruments were typically used and which ones were not. This meant following a positivist approach as in the first research question. However, the second part was based on an interpretivist paradigm, given that it sought assessments of the extent to which how those financing sources and instruments were applied addressed the critical life-cycle needs of agricultural SMMEs in Zimbabwe.

The measurement of the *extent* requires the use of opinions, personal professional judgments, ratings, or qualitative evaluations of availability, adequacy and appropriateness of agricultural SMME financing applied by owners or managers as well as financing executives at each stage of project development. This question brought in the interpretative qualitative dimension to the study. The third research question which related to other financing sources and instruments that owners or managers of agricultural SMMEs could suggest also had both positivist and interpretivist foundations. The identification and explanations of the financing sources and instruments followed a positivist paradigm while assessments of their appropriateness followed an interpretative tradition.

The other key considerations were epistemological and ontological issues regarding financing of agricultural SMMEs. These related to the selection and application of financing sources and instruments across agricultural SMME life-cycle stages by the owners and managers. For instance, all the three research questions were aimed at establishing key epistemological aspects. These aspects included agricultural SMME owners’ depth of knowledge of the available financing sources and instruments. In



addition, knowledge of factors influencing the financing patterns they followed, the critical life-cycle phases of agricultural SMME development and the typical failure modes were sought. Furthermore, the study sought to expose whether owners and managers regarded the critical life-cycle phases as adequately and appropriately financed. Also, the knowledge about other appropriate financing sources and instruments or best practices in agricultural SMME development and financing not used was explored.

Ontologically, the first research question and first part of the second checked the agricultural SMME owners' and managers' views regarding their power to determine appropriate stage financing instruments. The owners were to indicate whether they could freely apply what they considered appropriate stage financing or this was beyond their control. This was important in determining whether owners assumed full responsibility for appropriate venture stage financing, or they largely attributed it to some external conditions outside their control. Thus the ontological perspective of agricultural SMME owners was considered as instrumental in determining how they financed their business ventures.



4.2.3 The use of a mixed-methods approach

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Given the nature of the research questions, a mixed-methods research design was adopted. The questions overall sought a mixture of quantitative and qualitative data. The first research question sought sources and instruments available for financing of agricultural SMMEs. The data sought in this case was the percentage use of different financing sources and types of instruments cited as available including identification of the most commonly used. The data sought was categorical, mainly the name of the source or instrument available and mostly used by agricultural SMME owners. For the second research question quantitative data sought included most commonly cited problems at each life-cycle stage, most difficult or problematic life-cycle stage and instruments or source of finance typically used per stage. The third research question also solicited quantitative data on the other sources and instruments known from best practices to address typical life-cycle stage problems for agricultural SMMEs but not necessarily used.

To complement quantitative data, it was necessary to collect qualitative data as reflected in the second parts of the second and third research questions. Part 2 of the second research question required owners and managers of agricultural SMMEs to provide judgments, opinions and ratings of the extent to which the financing used addressed problems faced at each life-cycle stage for their businesses. These qualitative assessments were also solicited in respect of the suggested financing instruments that could be adopted based on international best practices in agricultural SMME life-cycle financing.

From the nature of the study, both qualitative and quantitative assessments were necessary to appreciate the dynamics of agricultural SMME financing by owners and managers. As such, the mixed methods research design was considered as the most appropriate for conducting the research. This enabled simultaneous analysis of quantitative and qualitative data in an integrated study, yielding a more comprehensive evaluation of agricultural SMME financing from the use of various data analysis methods.



4.2.4 Structuring and sequencing of the research components

In sequencing the research components, the study followed a concurrent design. Quantitative and qualitative approaches, methods and procedures were combined or mixed at the same stage in a single study to reflect on the research problem. This design was adopted as it yields a comprehensive picture from both quantitative and qualitative perspectives in one study. This approach has also been favoured by some mixed methods researchers (De Vos et al., 2012). In terms of time-orientation, the two facets of the study were carried out at the same time and not as independent of each other, hence a concurrent rather than sequential study design. It was further preferred since the purpose of using both quantitative and qualitative facets at once was to produce an integrated analysis of agricultural SMME life-cycle financing. For each research question, each approach carried a different weighting as determined by the nature of the data. Table 4.1 summarizes the steps followed in designing to research.

Table 4.1: Steps followed in designing the research

1	Revisiting the research objectives and their philosophical foundations to ensure the right match between research objectives and methods.
2	Adoption of triangulation. Structuring the study to combine both qualitative and quantitative self-assessments by agricultural SMMEs owners and having them validated by views of financing executives.
3	The selection of the mixed-methods was followed by population and sampling considerations.
4	The designing of data collection methods and instruments.
5	Conducting a pilot study to fine tune data collection instruments and process
6	Developing the data analysis methods and techniques for the mixed method study
7	Conducting full scale research
8	Data analysis ,interpretation and write up of research report

Source: Author's compilation for this study.

4.2.5 Population of study



Two populations were studied. The first consisted of owners of agricultural SMMEs and the second was made up of executives in financial institutions that finance agricultural SMME in Zimbabwe. The executives were the desk, portfolio managers or consultants responsible for financing agricultural SMMEs in their respective institutions. Selection of these owners and executives ensured that each key participant had sufficient knowledge of how agricultural SMMEs were financed.

In the case of agricultural SMMEs, managers were also allowed to participate on behalf of the owner provided they were actively involved in the financing decisions and had permission to act as a proxy for the owner. The agricultural SMME owners surveyed included small-scale farmers engaged in agricultural production and SMMEs in agricultural production-related activities. The SMME owners in agricultural production-related activities were engaged in input supply, wholesaling, processing, marketing and retailing. The focus on agricultural SMMEs rather than only on small-scale farmers was based on the entrepreneurship orientation expected in the study. This orientation is not properly reflected in the conceptualization of small-scale farmers, often largely subsistence farmers.

In addition, agricultural SMME owners included other entrepreneurs in small-scale agricultural related activities, so it was not just about farmers but small-scale entrepreneurial ventures in agriculture and agricultural related activities. Taken together, these constitute the small-scale agricultural sector often touted as the bedrock for agricultural sector revival in Zimbabwe. The proper organisation and financing of these enterprises by their owners and managers is critical for the realisation of that anticipated developmental impact. In this study, where the words “agricultural SMMEs owners”, “business owners”, “entrepreneurs”, “producers” or “farmers” are used, they refer to this population.

Globally, there are different classifications of what constitutes SMMEs. The classification has been fraught with challenges given the unreliability and variability of some of the measures used. These include number of employees, asset values and turnover and farm land size. A proper classification is crucial for correct accounting of the subsector’s contribution to economic growth as well as for interventionist policy targeting. The classification challenge is a global problem making it difficult to compare SMMEs across jurisdictions.

Within the Zimbabwean context, one of the classifications used by the Government uses provisions of the Finance Act to describe SMMEs. This uses employment levels, annual turnover and gross value of assets. A formula used adds the points awarded to annual average number of full time employees (A), the maximum total annual turnover, and C, the maximum gross value of assets as shown in the Table 4.2 below.

Table 4.2: ZIMRA’s SMME classification

Base	Range	Points	Factor
Employment levels	Up to 5 employees	1	A
	6 to 40 employees	2	
	41 to 75 employees	3	
	76 and above	4	
Annual Turnover	Up to US\$50,000	1	B
	US\$50,001 to US\$500,000	2	
	US\$500,001 to US\$1,000,000	3	
	US\$1,000,001 and above	4	
	Up to US\$50,000	1	C

	US\$50,001 to US\$1,000,000	2
Gross value of assets	US\$1,000,001 to US\$2,000,000	3
	US\$2,000,001 and above	4

Source: www.zimra.co.zw/special initial allowance for SMEs

To determine where an enterprise fitted, if the sum of awarded points is ≤ 9 points, the enterprise is an SME., if 3 or 4 then it is a “micro-enterprise,” while 5, 6 or 7 points means “small-sized” enterprise and, (c) 8 or 9 points means “medium-sized” enterprise. This formula attempts to set a criterion for classifications loosely followed by many government departments in Zimbabwe (Zimbabwe Revenue Authority,2014). The classification attempts to set a criterion for distinguishing between enterprises falling within the micro, small and medium enterprises categories. This is the categorization that was employed for the study.

The targeted respondents in the survey therefore were entrepreneurs generating an income through running a micro, small or medium-scale agricultural business enterprise. These ranged from individual entrepreneurs with no employee to those with up to 75 employees operating under different forms of business ownerships. All the owners who participated in the study had businesses that qualified to be in the broad classification of SMMEs in Zimbabwe by the above classification criteria.

To obtain expert assessment of agricultural SMME financing, key executives or agricultural SMME financing portfolio officers and managers were selected from financing institutions. They were required to provide opinion ratings as to whether critical life-cycle stages were adequately and appropriately financed. The inclusion of this group was aimed at soliciting for assessments that would validate those of self-reporting SMME owners and managers.

4.2.6 Sampling

According to a government-sponsored comprehensive SMME study, about 1.2 million owners in Zimbabwe were engaged in agricultural-related activities (Government of Zimbabwe and FinMark Trust, 2012).The distribution of these activities across the country is described in a national study conducted by the Zimbabwe National Statistics Agency (ZimStat). According to the study, the concentration of agricultural SMME activities in Zimbabwe is influenced by agro-ecological zones (ZimStats,2018).

The type and intensity of farming is dictated by these zones which are differentiated by annual average rainfall received.

In region 1 in which Manicaland and parts of Mashonaland East fall, there is intensive horticulture and small-scale livestock production. Region 2 in which Harare region and surrounding areas lie is characterised by intensive horticulture, small-scale livestock and crop production. The other agro-ecological 3,4 and 5 support more extensive large scale crop and livestock farming. Bulawayo province which lies in the drier region however has a concentration of small-scale agricultural activities seeking to exploit the proximate large urban market for horticultural products. Based on this information, the four provincial clusters were purposively sampled for the concentration of small-scale agricultural activities. The map in Figure 4.1 below shows the location of the selected provincial clusters in Zimbabwe.



Figure 4.1: Map of Zimbabwe showing location of provincial clusters selected
Source: Google Maps

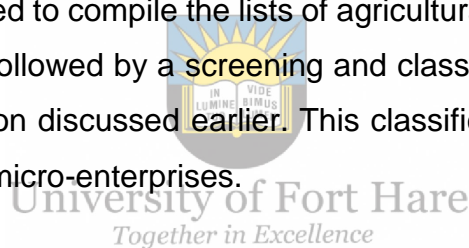
In determining the sample of agricultural SMME owners or managers, a multi-stage sampling strategy adopted involved employing cluster, purposive, stratified and quota sampling methods in that order. Table 4.3 summarises the strategy used in sampling agricultural SMME owners.

Table 4.3: Strategy used to sample agricultural SMMEs

Stage 1	Using the FinScope study SMME distribution map to identify main provincial SMME clusters resulting in the selection of Harare, Bulawayo, Mashonaland East and Manicaland
Stage 2	Sampling in provincial clusters using support agencies databases to classify SMMEs into size categories
Stage 3	Using the provincial database figures to assign quotas for micro, small and medium size categories.
Stage 4	Voluntary participation to fill quota. Distribution and collecting of questionnaires continued until each quota was filled.

Source: Author's Compilation for this study

In the first stage, the FinScope and ZimStat studies were used to identify the provinces with the largest number of agricultural SMEs. Harare, Bulawayo, Mashonaland East and Manicaland were selected as enumerating clusters. In stage 2, SMMEs within each province were identified using the Zimbabwe Association of SMES's and the Lands and Agricultural ministry and the Small and Medium enterprise ministry databases. Firm size is then used to stratify the data into small, medium, and micro sized strata as discussed above in relation to classification. Using the databases, contact details were used to compile the lists of agricultural SMMEs located in each of the clusters. This was followed by a screening and classification exercise in terms of the classification criterion discussed earlier. This classification however results in an over representation of micro-enterprises.



For the above reason, at the next stage therefore, quotas are assigned to each stratum based on the province's category concentration as size weights. Quota sampling was thus used to determine the targeted number of respondents for each of the micro, small and medium-sized enterprise stratum. In the last stage, SMME owners in each stratum are randomly invited to participate until the desired quotas are filled. Overall, all agricultural SMME owners selected had businesses that fitted into the SMME category. For instance, in the Harare cluster with one of the highest concentrations, 50 micro, 30 small and 20 medium-sized agricultural enterprise owners or managers were targeted. Table 4.4 below show the targeted quotas for each size category in each cluster. This yielded a total sample of 320 agricultural SMME owners.

Table 4.4: Quota sampling of SMMEs

Province	Micro size	Small Size	Medium Size	Total
Harare	50	30	20	100
Bulawayo	30	20	10	60
Mashonaland East	50	30	15	95
Manicaland	30	25	10	65
Total	160	105	55	320

Source: Author's compilation for this study

In the case of agricultural SMME financing institutions, the 2016 Reserve Bank of Zimbabwe list of registered financial institutions was used as a sampling frame. As at 30 June 2016, the list had 21 banking institutions, 16 asset management companies, 167 micro-finance institutions and 4 development finance institutions with different agricultural loan portfolios (Reserve Bank of Zimbabwe, 2016).

The list of donor and development Aid agencies was obtained from the Aid Section in the Department of Domestic and International Finance in the Ministry of Finance. The section keeps the records and works with key donor agencies under the Donor Co-ordination Framework. Several bilateral and multilateral donors support agriculture. They provide funding through their specific programmes or they fund non-governmental organisations which are the implementing partners. It is the list of programme implementing partners that was consulted. From the two lists, institutions with dedicated agricultural SMME financing portfolios were identified and listed starting with the one with the greatest portfolio. The listed organisations were then approached and invited to voluntarily participate in the study. The respondents were the desk officers or portfolio executives in charge of agricultural SMME financing.

The invitations and participation were done one at a time. The final number of financing institutions was determined based on data saturation. The invitations were stopped when no new views were forthcoming through additional interviews. The financing executives were involved in the study to provide expert assessment of the use and suitability of finance used by the small business owners. This was necessary in moderating the effects of potentially biased self-assessments by owners and managers. As such, their expert assessments assisted in boosting the validity and credibility of the findings of the study. Through the data saturation procedure, a total of 12 financing executives were invited to participate in the study. Attempts to go

beyond this final number only yielded recurrence of the same responses as opposed to emergence of new information.

4.3 Data collection methods and instruments

Data collection from owners of agricultural SMMEs was carried out over an eight-month period from July 2018 to February 2019 while agricultural SMME financiers provided data between January and June 2019. A semi-structured cross-sectional survey questionnaire was used as the instrument for the gathering data from the agricultural SMMEs while a semi-structured questionnaire was administered to financing executives. These methods were carefully selected in order to capture both quantitative and qualitative aspects of the study. The survey questionnaire was selected given the wide geographical area covered by the study. The instrument collected data reflecting various qualitative and quantitative aspects of how the owners finance their ventures through the life-cycle stages. The administered questionnaire enabled a focused coverage of the key aspects only for which expert assessment was needed regarding how agricultural SMME owners finance their business ventures.

The questionnaire was distributed con to the business owners in the selected clusters by qualified and well briefed research assistants during the data collection period to ensure that they uniformly carried out the process. Data collection from financing executives was carried out through an administered questionnaire. This instrument assisted to focus the data collection to the aspects required in the study. A copy of the administered questionnaire was issued to participants in advance to enable them to familiarise with the content and the data sought. The approach saved time during the scheduled data collection process and it also afforded the principal researcher the chance to seek clarification from the participants particularly on the qualitative responses provided.

4.3.1 Variables sought by specific questions in the instruments

Table 4.5 below summarises the overall structure of the questionnaire, showing the key aspects that were elicited in order to address the key research questions. The key aspects were categorized with section B relating to the first research objective, Section C requiring responses relevant to the second and third research objectives. Second D

sought indications of the most suitable stage funding as suggested by owners and financiers.

Table 4.5: Focal aspects of questions in the questionnaire to SMME owners

Aspects of study	
Section A	<ul style="list-style-type: none"> • Agricultural SMME Characteristics: Type of Agricultural activity; Age of Business Venture; Ownership Structure; Annual Turnover; Number of Employees; Total value of Assets
Section B	<ul style="list-style-type: none"> • Financing sources that are available for financing agricultural micro, small and medium enterprises in Zimbabwe • Financing sources mostly used. • Rating of affordability of funding sources for agricultural micro, small and medium sized enterprises • Main constraints that are faced when accessing funding for agricultural SMMEs ventures. • Whether these constraints influence selection of financing sources used throughout the life-cycle stages of ventures.
Section C	<ul style="list-style-type: none"> • Most problematic stage(s). • main causes for ventures failing at the stage • Occurrence of major stage problems • the seriousness of effects of stage problems on the overall success • identify the stage-specific problems. • the easy of identifying the major stage problems. • Ranking of stage difficulty/where most serious problems were experienced • Actual problems faced at each stage • types of financing used at each of the stages- • Reasons for using those types of funding at each of those stages. • The extent to which funding used addresses the most serious problems
Section D	<ul style="list-style-type: none"> • Best practice Stage funding necessary to address the critical stage problems

Source: Author's compilation for this study

To enable triangulation of results, the questionnaire administered to financing executives had similar sections. However, the targeted financiers were acknowledged as experts in agricultural finance. As a result, the specific questions in the administered questionnaire were restructured and re-focused to gather expert qualitative assessments on the use of funding by agricultural SMME owners.

4.3.2. Key underlying Assumptions and interpretation of findings

The findings of the study are interpreted in view of the main assumptions that were made during the targeting and selection of the respondents in the study. These are:

- (i) The selected agricultural SMME owners and managers have functional knowledge of what it takes to manage their businesses stage by stage.
- (ii) The screening process used to select participants targeted the right respondents in terms of their classification and data provided.
- (iii) The business owners and managers can explain what is required at each stage even if they have not reached that stage.
- (iv) The multiple batches of production in one year could lead to several business life-cycle phases being experienced in a short time span (for instance in poultry, horticulture, small livestock production).
- (v) The business' progression in its life-cycle is not adequately measured by its age (years of existence).
- (vi) The desk officers or financing executives were qualified to give expert assessments of SMME owners' use of funding and its appropriateness at each stage.

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The data collection process was conducted on the basis of these assumptions.

4.4 Data analysis methods and procedures

This section discusses the methods used to analyse data relating to both quantitative and qualitative aspects of the study. The methods are discussed objective by objective and more specifically in relation to each aspect that addresses a part of the study under each objective. The first research objective was addressed mainly through quantitative analysis with qualitative analysis playing a secondary role. Quantitative analysis was used for the second research objective. The data for the third research question was mainly analysed qualitatively with quantitative analysis playing a subordinate role. Statistical Analysis System (SAS) Software version 9.3 was used to analyse quantitative data. For the last question, both approaches play a balanced role. Thus, the use of mixed-method data analysis is an integrated approach that aimed to yield a broader picture with respect to agricultural SMME life-cycle financing. Both quantitative and qualitative analyses supported each other.

For each aspect analysed, the methods of analysis used are stated and qualified and the variable studied was identified and operationalized including how it was measured and the results interpreted. Thus, the way the results are interpreted is presented at the end of the discussion of the method used. The following sections present these facets for each research objective and specific variables analysed. The order of analysis was that the study started with broad awareness of finance available. It then focused on the application of finance along the life-cycle stages before addressing the appropriateness of funding in view of most problematic stage problems identified. Lastly, it dealt with the ideal life-cycle financing framework for agricultural SMMEs, in view of funding limitations on the market.

4.4.1 Analysis of SMME owners' knowledge and access to funding

The first research objective was to determine the level of knowledge or awareness that agricultural SMME owners or their proxies have regarding the available financing sources and instruments on the market. It further required them to state which ones they commonly used. The following subsections discuss the analysis of other factors linked to business owners' sourcing of funding. They present the level of owners' awareness of the funding sources and instruments cited as available, the sources of funding mostly used, affordability of finance, the main challenges faced when sourcing finance and the effect of these challenges on selection of finance. The results are discussed in Chapter Five.

i) The awareness of types of agricultural SMME funding available

The first aspect analysed was the level of awareness of financing sources and instruments on the market. The response variable in this case was "*level of awareness of financing sources and instruments*". This is a measure of how much knowledge of financing sources and instruments available on the market that agricultural SMME owners have. Knowledge was measured as the number of funding sources known to the business owner.

For this analysis, awareness was measured on a categorical scale with four levels which are *not aware to limited, moderate, fair and high*. The underlying indicator of the level of awareness was the range of financing sources and instruments cited by

business owners in response to the question on what sources and instruments are offered on the market. Citing four or more sources of funding was considered as “*highly aware/level of knowledge*”, three reflected “*fairly aware*”, indicating two sources was taken as showing “*moderate awareness*” while giving only one was deemed as reflecting having “*limited of awareness*”. The basis for the measurement was that at least agricultural SMME owners have to show a fairly high level awareness of financing options available by citing a variety of sources.

The level of awareness was firstly analysed using frequency analysis indicating the predominant level for the agricultural SMME owners. Percentages were computed to establish the percentage split in terms of each level of awareness. The level of awareness was an important determinant of the owners’ ability to source finance offered on the market. High level of awareness was associated with greater ability to secure funding from a variety of financing sources and using a variety of instruments. On the other hand, limited awareness also meant they were constrained in terms of what they could use to finance their business ventures.

The financing sources that agricultural SMME owners knew were contrasted with what financing executives indicated as being available by their institutions on the market. The comparison was important in further assessing the level of business owners’ interaction with the market and hence their knowledge of funding sources available. A large difference between what financiers offered and what business owners knew as available showed a lack of appreciation of what the market offered to support agricultural SMME activity.

ii) Finance sources and instruments mostly used

Following from the level of awareness or knowledge, the predominant pattern of use was analysed. This reflected the main financing sources and instruments the owners predominantly relied on to finance their businesses. It is acknowledged in finance literature that certain finance sources and instruments are more commonly relied upon than others by SMMEs (OECD, 2018; OECD, 2019), given that SMMEs tend to be restricted in the funding types used than larger corporations. In any economic sector, awareness of the sources and instruments of finance commonly relied upon is important. Such knowledge is useful in guiding efforts to broaden the sources and types of finance accessible and used to support business development in a particular

sector, including financial education as well as engaging suppliers of funding. The efforts can address real and perceived obstacles agricultural SMME owners may have in an attempt to use a broader array of financing instruments.

The business owners were asked to provide a rank-order of the main financing sources they used. The response variable was the funding sources mostly used and given in the form of a rank order from the mostly used to the least used by SMMEs. In this study, own or internally sourced funding included own savings, family savings and retained profits. Bank finance referred to funding sourced from banks and micro-finance institutions in various forms and for which repayment with interest is required.

Donor funding included all developmental and grant-type funding from both family and outside sponsors for which there was no repayment. Contract finance was the financing arrangement between the agricultural SMMEs and funders who provided finance and inputs for production based on off-take agreements that the output was delivered to the financier as specified. It included both government and private contract financing schemes. The rank-orders were collated to determine a combined rank-order of the mostly used funding sources. The results were compared with those from the analysis of the rank –order generated financing executives in their assessment of how agricultural SMMEs were mostly funded.

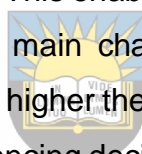
(iii) Affordability of available agricultural SMME finance

Affordability of available finance is a key determinant of selection and use of such funding. It is a measure of the potential users' judgment with respect to the cost of the finance and related qualifying conditions attached to it. This determines the extent to which potential users can actually succeed in sourcing needed funding. Affordability was mostly measured in terms of the interest rate charged on finance sourced. However, a broader measure included additional requirements such as the size of repayment instalments, repayment period and the value of collateral required to secure the need funding. Agricultural SMME owners were asked to rate affordability of available funding on a scale calibrated from "very much affordable" to "affordable", "not affordable" to "very much unaffordable". Frequency analysis was conducted to establish the predominant assessment based on the business owners' experience with sourcing of funding. The results were displayed in a frequency table.

(iv) The main challenges faced when sourcing funding

When sourcing funding, some challenges are encountered. The challenges encountered may play an influential role in determining the funding ultimately sought and secured. For instance, challenges such as high cost of borrowing and lack of adequate collateral security may curtail use of external borrowing. The challenges also tend to vary and also have different weighting or prominence at different stages in the life-cycle. As a result, they were analysed in relation to the specific life-cycle stage for which funding was sought. Business owners were thus requested to indicate the main challenges they faced when securing funding at a particular stage in the business life-cycle. In this case, the response variable was the challenge cited while the predictor variable was the stage at which the challenge was experienced.

For each stage, the challenge that was mostly cited by agricultural SMME owners was regarded as the main challenge or problem. The results were analysed for each stage, collating the main challenges cited. This enabled performing of frequency analysis and presenting of a rank-order of the main challenges as experienced by agricultural SMME owners stage-by stage. The higher the frequency of a challenge cited, the more prominent it was as a factor in influencing decision in the selection of financing sources for a particular stage.



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In order to cross-check the challenges faced at each stage, managers and portfolio executives in some agricultural SMME financing institutions were asked to indicate the main challenges they faced when providing finance. While they gave the challenges from a supply-side perspective, it was important to establish any commonality in the challenges faced. The involvement of financing executives was meant to elicit more expert and balanced assessments of the challenges regarding sourcing and provision of stage-specific finance for agricultural SMMEs.

The list of the main challenges cited were also compared with the pattern of key challenges cited in literature to check for similarity and differences in challenges faced. Relatedly, financiers indicated the key owner-manager characteristics that they considered as major determinants in providing funding to a business. These characteristics were listed and compared for the twelve participants to establish their commonality. Thematic content analysis was used to analyse and establish their link with the challenges in sourcing funding cited by business owners.

(v) Thematic Analysis of Qualitative responses offered

Qualitative responses by both agricultural SMME owners and financing executives were analysed through thematic content analysis, whose process is shown in Figure 4.2.

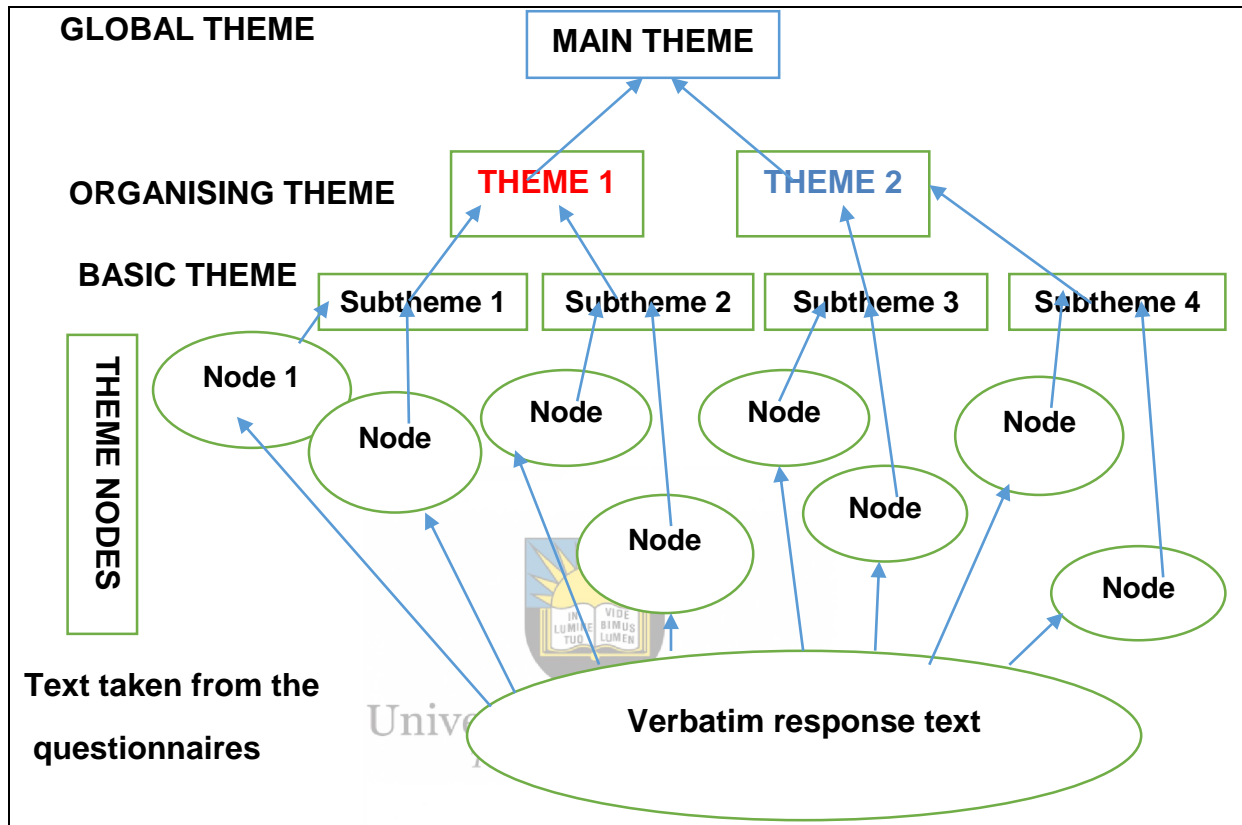


Figure 4.2: Thematic framework used to identify the main themes from response
Source: Adapted from *Bryman and Bell (2007)*

Thematic analysis is a branch of content analysis which was used to sift the emerging themes from the qualitative responses provided (Bryman and Bell, 2007, Creswell et al., 2008). It is the method of analysis applied to all the qualitative responses given in the study. This qualitative method enabled the analysis of the content of responses provided with a view to establishing the dominant themes emerging. The emerging dominant themes revealed the generally held perspectives and reasons for the way agricultural SMMEs were financed. The analysis was meant to check if the emerging themes backed the quantitative results obtained.

The responses from financing executive also included whether business owners had the knowledge to pinpoint the main problems encountered at each stage. The reasons

given by financing executives were also subjected to thematic analysis to establish how financiers viewed the level of business knowledge that agricultural SMME owners had. This involved grouping together the various responses for each question to determine the commonality in the responses provided. Common responses used to identify emerging common themes. The initial themes identified were further categorized to identify emerging broader views and assessments. The results of thematic analysis were initially displayed as shown in Table 4.6 below and then discussed. Subsequently, the specific views expressed were presented verbatim and discussed in terms of their basis and implications to the proper use of life-cycle financing for agricultural SMMEs.

Table 4.6: Showing the development of the main theme and example quotes

Theme nodes	Organising theme	Emerging theme	Global theme	Meaning	Example Quotes
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Source: Adapted from Bryman and Bell (2007).

The qualitative responses given by both the business owners and financing executives for each question were categorised and assigned numerical codes which enabled the quantitative analysis of categorical data. The coding scheme was developed and applied after data collection to ensure that data was properly fitted in the right categories.

(vi) Effect of the key challenges on selection of funding

Agricultural SMME owners were asked whether overall the main challenges they cited had an influence on the financing sources they ultimately used. Therefore, the variable of analysis was the “*effect on funding selection*” This was measured on a binary scale showing “Yes” for having an effect, and “No” where the challenges did not influence the sourcing of funding. Frequency analysis was then used to determine how majority of the business owners felt about the extent of the impact of the challenges in influencing their financing decisions. This enabled calculating the percentage of the business owners who were affected and compared to those not influenced. The greater the number of affected SMME owners, the greater the need for those cited challenges to be addressed to ease access to external finance. The challenges less cited were considered as having less effect on accessing and selecting of finance

options at a particular stage in the business life-cycle. The results were presented in a frequency table.

Using a qualitative approach, the business owners were further requested to qualify their responses on the impact of challenges faced when sourcing funding. They were asked to explain their assessments, highlighting the main ways in which challenges affected sourcing of funding. These were analysed thematically. The main theme emerging from the explanations revealed whether as well as how the challenges affected life-cycle funding choices made. This highlighted the nature of the impact as well as how the cited challenges may be addressed to ease access to external finance.

The financing executives were asked to indicate by a “Yes” or “No” to whether the challenges they faced in availing stage funding influenced decisions to funding certain stages of business development. They were further requested to explain their response. The various responses offered were extracted and analysed also through thematic analysis.

4.4.2 Analysis of use of funding and influencing factors

The second research objective sought to identify the finance sources used at each stage in the business life-cycle. This objective was addressed through analysis of data relating to two facets. The first facet was the use of financing sources at each stage in the business life-cycle. The second was investigating if the use varied from one stage to the next as well as in response to a number of other business characteristics. The choice of the independent variables was based on both theory and developing trends as revealed in literature.

The selection of business characteristics (type of activity, age of business, ownership, turnover, assets, number of employees and location) was based on the need to test the factors cited in theories (Weston and Brigham, 1970; Myers and Maljuf, 1984) as well as used in similar studies (for instance Menike,2015; Salamzadeh and Kesim,2013) in order to be able to draw comparisons. The inclusion of the other variables (funding knowledge, funding advice, specificity of funding, funding benefit, adequacy and problem identity) was based on the need to check the significance of these variables in view of the growing interest in the level of financial education among budding entrepreneurs (OECD,2017; OECD,2018).The facets of the entrepreneur’s

financial education are increasingly being recognized as important determinants of the use of appropriate funding.

i) Modelling business stage funding use against determining factors

Business stage funding was conceptualised as a function of key broad factors which were owner, firm, market characteristics and the life-cycle stage specific problems. The functional relationship could be summarised as follows:

$$SF=f(OC, FC, SS) \dots\dots\dots (Equation 4.1)$$

Where OC=Owner characteristics; FC=Firm characteristics and SS=Life-cycle stage specific problems.

The relationship is illustrated as shown in Figure 4.3 below.

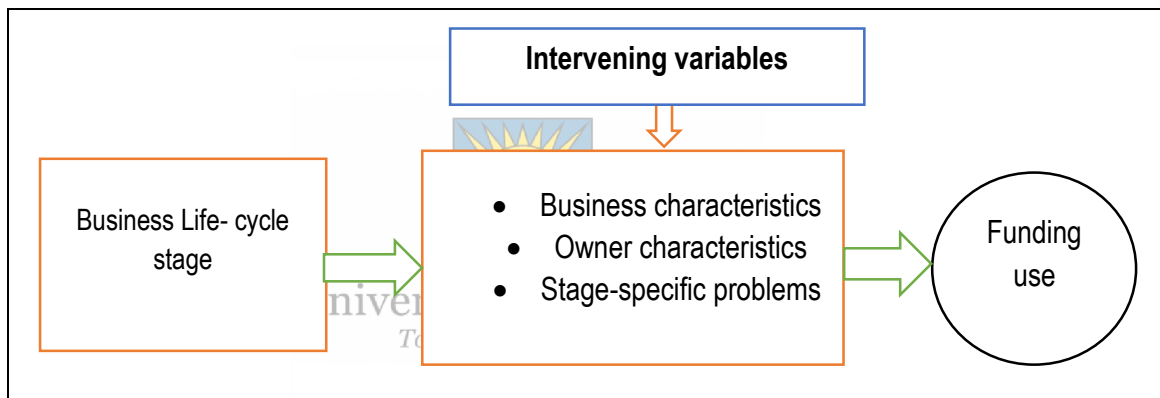


Figure 4.3: Funding use as influenced by stage and intervening factors
Source: Author’s own diagram for this study

Owner characteristics included level of awareness of funding options, ability to source suitable funding as well as technical support and advisory services, personal financial position and attitude towards debt as major aspects. The firm characteristics were the type of business activity, age of business, ownership structure, annual turnover, asset value, number of employees and location. Life-cycle stage specific problems were the specific operational problems encountered at each particular stage and for which funding sought to address.

A key aspect of the problems was identity, which was the extent of the problem being distinct as viewed by business owners. The problems ranged from business inception to those experienced when business face decline, all of which needed to be sufficiently

recognised as major challenges. One of the central objectives of this study was to determine such factors for each business stage.

Funding use was first broadly defined and analysed as a binary variable which could only be either internal or external. This was then followed up by binary regression analysis of the use for the types of funding options throughout the business life-cycle. The use of funding was assumed to depend on the life-cycle stage for agricultural SMMEs. Thus, the “*use*” of *stage funding* was the dependent variable. The use of funding took a binary form in terms of used or not used in addition to being either internal finance or external.

The specifications for the dependent variable therefore took a dichotomous form of dependent variable (0, 1). Each type of funding was therefore analysed as either used (1) or not used (0) at each stage. Thus logit analysis was the most suitable approach for the regression analysis of dichotomous variables as it always returns values between 0 and 1. This binary analysis of fund use was considered adequate given that there is no complete public information on fund use as would be the case on Securities Exchanges. The use of funding along the business life-cycle is dependent on a number of other specific factors. Figure 4.4 below shows the factors which influence the use of funding options by agricultural SMMEs along the business life-cycle.

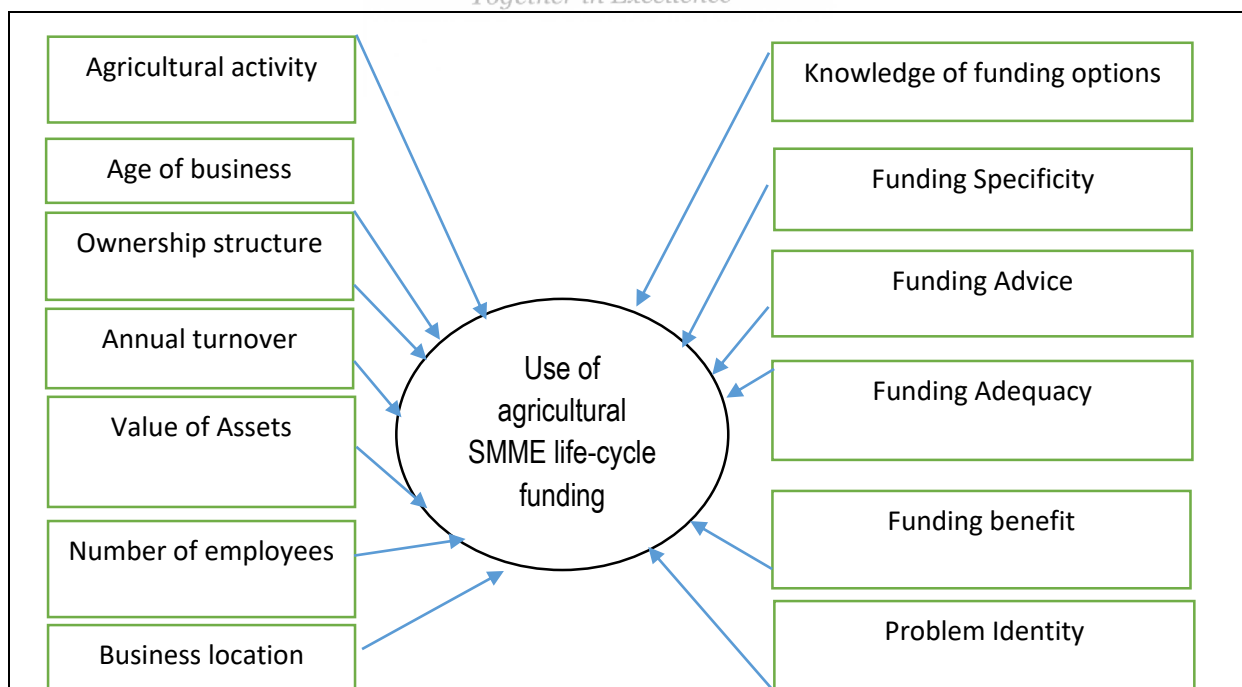


Figure 4.4: Spider network diagram: The use of funding as influenced by selected factors.
Source: Author’s own diagram for this study

With the response variable (funding use) being binary, multiple logistic regression analysis was then used for estimating the pattern of the relationship the response variable had with some business specific characteristics and experiences with funding (predictors). These independent variables selected in this analysis were important factors influencing life-cycle financing of a business. Each of these was briefly explained in terms of their link with choice of agricultural SMME financing. At a specific business stage, the incidence of some identifiable operational challenges influences the type of funding that is most suitable for addressing those problems. As a result, each agricultural SMME life-cycle stage was analysed to determine the main types of funding used.

This analysis was based on the assumption that each business life-cycle stage influences the choice and use of funding considered being most appropriate to address the challenges faced. For instance, literature (Ruete, 2015; IFC, 2011) cites the need for more use of seed capital such as research grants to fund business feasibility studies and planning at inception stage whilst maturity stage needs more use of internal sources such as retained profits.

With respect to agricultural activity (AA), available literature shows that use of funding tends to vary across different types of agricultural activities such as crop, animal, poultry, horticulture and agribusiness (James,2015; Scoones,2010). However, such use may not necessarily differ with respect to agricultural life-cycle financing, for instance as a result of challenges with availability of funding on the market. Therefore, it is important to establish the life-cycle financing effects of agricultural activities.

Available literature also explains age (AG) of the business as an important determinant of access to appropriate external finance (Menike, 2015; Myers and Majluf, 1984). Business ventures that have been in existence for many years and therefore have a credible trading history have been observed as accessing appropriate external finance better than newly established ones (Myers and Majluf,1984; Menike,2015; Wahab and Abdesamed, 2012). Therefore, ceteris paribus, with longer time since inception, new small businesses are assumed to have greater access to a broader range of financing sources and instruments including external finance which are key to effectively addressing life-cycle failure modes.

Ownership structure (OS) has been identified in literature (Menike, 2015; Global Entrepreneurship Institute, 2014) as impacting on financing patterns especially for SMMEs. Access to a broader range of financing instruments and sources is considered generally more limited for sole proprietorships, family owned businesses and partnerships as compared to public limited companies. In addition, the desire to retain close control of a business means that sole owners have less propensity to explore external debt and equity as sources to fund business development even at stages needing more funding (Myers and Majluf, 1984). As such the most appropriate financing sources and instruments, even when they are available, may never be fully exploited. Therefore, ownership of a small business has the potential to influence the selection and use of life-cycle finance.

Annual turnover (AT) was analysed since in theory it is linked to the ability of an agricultural SMME to generate sufficient internal funds (Kim and Suh, 2009; Weston and Brigham, 1970). All other things equal, an agricultural SMME generating large annual turnovers has a greater likelihood of relying on internal sources of funds when funding operations along the life-cycle than one with small annual turnovers. Conversely, large annual turnovers and the associated profitability may give confidence to the agricultural SMME to borrow more buoyed by greater ability to repay.

The total value of assets (VA) was used in the description of agricultural SMMEs as another important factor for life-cycle financing. Firms with higher total value of assets may use the assets as collateral and be able to mobilize a greater variety of finance, and more importantly get access to more appropriate types of funding necessary to address the stage specific problems (Myers and Majluf, 1984). However, the same higher total value of assets may lead the firm to shun external sources of funding and sell some of its assets to finance activities at critical stages of development. Thus, (VA) was analysed to determine the impact on financing patterns for critical stages of agricultural SMME development.

The number of employees (NE) was used in literature as a proxy for size of business (Menike, 2015). This was mainly used to determine whether an agricultural SMME could be categorised as micro, small or medium-sized in line with the classification used in Zimbabwe. Micro-agricultural SMMEs are expected to rely more on informal

sources of finance, with small and medium-sized enterprises seeking a broader array of financing sources and instruments.

Funding knowledge or awareness (FK) as discussed above has a link with the use of funding. Business owners with a higher level of knowledge of funding were expected to use a wider variety of funding as well as at stages where particular types of funding were more suitable (OECD, 2018; Masiyandima, Chigumira and Bara, 2011). Thus, the use of more options is a reflection of greater knowledge of business finance as well as the need to respond to the changing financing needs of a business throughout the life-cycle. This includes the ability to negotiate with financing institutions for well structured financing instruments that better address the funding needs.

The use of funding advice (FA) from institutions offering financial and investment advisory services is directly linked to the use of funding options. Business owners who use funding advisors are more likely to use more funding options available as compared to those who do not get advice on funding use. Financing advice helps in making business owners aware of the various instruments and how they are structured (Asian Development Bank, 2015). This further assists them in making appropriate funding decisions for their ventures. Funding specificity relates to the fact that appropriate use of funding is determined by the stage of the business. Therefore, the specificity of stage funding means those business owners who have sound knowledge of funding use the funding instruments in accordance with where they are most suited.

In the case of funding adequacy (FAD), funding options considered as adequately addressing business needs are more likely to be used than those that do not fully address business needs (Masiyandima et al., 2011). Therefore, funding adequacy determines whether a type of funding is used or not. The same applies for funding benefit (FB). Business owners use types of funding from which they derive greater impact in addressing business challenges than from those deemed partly beneficial.

In project management and risk analysis, problem identity (PI) relates to the distinctiveness of the project risk or problem for which funding is sought (Gido, Clements and Harinarain, 2018). The ability to identify the major business problems helps in using the most suitable types of funding. The inability to identify unique or major business problems may result in seeking funding that partly addresses the targeted problems. All these predictors were therefore considered important

determinants for the use of types of business funding for agricultural SMMEs at particular stages of the business cycle.

(ii) Empirical Model specification

Binary logistic regression analysis is one of the analysis techniques that are suitable for non-parametric tests when data is categorical in nature (Gujarati and Porter, 2010). It is also suitable for analysis of cross-sectional data. Binary logistic regression analysis was adopted as the best method for predicting the use of a funding type at a particular life-cycle stage. Given the cross-sectional nature of data, the model used was:

$$Y = \alpha + \beta x_i + \epsilon_i \dots\dots\dots(\text{Equation 4.2})$$

Where Y is the dependent variable, β is the beta coefficient measuring the strength and direction of the dependent variables' relationship with the predictor variables X_i with $i=1 \dots\dots N$; and ϵ_i being an error term.

More specifically, this model took the verbal form, dependent variable (0, 1) = constant + AA + AG + OS + TA + VA + NE + LO + FK + FA + FS + FAD + FB + PI. The binary logistic regression equation for estimating the relationship of funding use with specific stage, firm, and owner and market factors as predictor variables is specified as:

$$\begin{aligned} \text{Log}_{it}(P_i) &= \log_{it} [P_i / 1 - P_i]: \\ &= \beta_0 + \beta_1 AA + \beta_2 AG + \beta_3 OS + \beta_4 TA + \beta_5 VA + \beta_6 NE + \beta_7 LO + \beta_8 FK + \beta_9 FAD + \beta_{10} FS + \beta_{11} \\ &FB + \beta_{12} PI + \beta_{13} FADQ + \epsilon \dots\dots\dots(\text{Equation 4.3}) \end{aligned}$$

β is the log of the dependent variable, that is, chance of use of a type of funding. β_0 , to β_{13} are the beta coefficients for the link between each predictor variable and the dependent variable and ϵ is the error term. Table 4.7 below summarizes how the predictor variables are explained in terms of their importance in influencing the choice and use of business funding as well as how they are measured.

Table 4.7: Specification and measurement of independent variables

<i>Variable</i>	<i>Specification of variables</i>
Business type/Agricultural Activity (AA)	The nature of activity the business undertakes. It is a proxy for the influence of activity on the suitability of funding. This is a nominal variable denoted such that (<i>i</i>) is: 1) If it is crop husbandry ;2) If it is animal husbandry ;3) If it is horticulture 4) If it is poultry production; 5) If it is agribusiness.
Age of business (AG)	The number of years the business has been in operation. It is a proxy for growth of business which influences ability to source external funding. This is an ordinal variable with the age categories, whereby (<i>i</i>) is: 1 for up to 1year old; 2 for 2years old; 3 for 3 years old; 4 for 4 years; 5 for 5years and 6 for above 5 years.
Ownership (OS)	This is a proxy for the type of business proprietorship and it is a nominal variable taking the following values whereby (<i>i</i>) is: 1) If it is a sole proprietorship ;2) If it is a family owned business ;3) If it is a type of partnership
Annual turnover (AT)	The total value of sales per year and is a proxy for the income generating ability of the business. This is measured as an ordinal variable given the sensitivity around disclosure of financial information. The turnover categories are denoted as follows whereby (<i>i</i>) is: 1) If turnover is <\$100 000 2) If turnover is \$100 000-\$240 000 3) If turnover is \$240 001-\$500 000 4) If turnover is \$500 001-\$1 000 000 5) If turnover is >\$1000 000.
Asset value (AV)	This is the total value of monetary and physical assets held by the business. It is a proxy for capital owned which influences demand for funding. This is considered as an ordinal variable given the sensitivity around disclosure of financial information. The asset value categories are denoted such that (<i>i</i>) is: 1) If total assets are <\$50 000 2) If total assets are \$50 000-\$1000 000 3) If >\$1 000 000
Number of Employees (NE)	The number of full-time employees the business has. It is a proxy for business size, which in turn influences demand for funding. This is considered as an ordinal variable to capture all possible levels of employment. The levels of employment are denoted such that (<i>i</i>) is: 1) If the number of employees is up to 5; 2) If the number of employees is 6 up to 40 ;3) If the number of employees is above 40
Business Location (LO)	Is the place where the business activity is carried out. It is a proxy for awareness and access to funding options. This is a nominal variable whereby (<i>i</i>) is: 1) If the business is located in Harare provincial cluster 2) If the business is located in Bulawayo provincial cluster 3) If the business is located in Mashonaland East provincial cluster 4) If the business is found in Manicaland provincial cluster
Funding knowledge (FK)	This is the level of awareness of funding options that the business owner has. It reflects the ability to pick and use the right funding instruments at a particular stage of the business life-cycle. It is an ordinal variable whereby (<i>i</i>) is: 1) If none ; 2) If the business owner has little knowledge; 3) If the business owner has fair knowledge; 4) If the owner has high level knowledge
Funding advice (FA)	This is the use of advice by business owners when sourcing suitable funding. This is a nominal variable whereby (<i>i</i>) is:

	1) If funding used is self-sought without external advice; 2) If funding is sought with advice from external parties
Funding specificity by stage (FS)	The understanding by users that some types of funding are more suited for particular stages than others. This is a binary variable whereby (<i>i</i>) is: 1) If Yes, fund use is stage-specific; 2) If No, fund use is not stage-specific
Funding adequacy (FAD)	The measure of whether funding is enough to meet the operational requirements of the business. It is the ability of the business owner to secure funding in sufficient amounts when required at each stage. It is a binary variable whereby (<i>i</i>) is: 1) If Yes, funding used was adequate; 2) If No, funding used was inadequate
Funding benefit (FB)	The level of agreement by a user that stage funding used has resolved all the challenges for which it was sought. This is the efficacy of funding used at a specific business stage. This is a nominal variable denoted by values whereby (<i>i</i>) is: 1) If strongly disagree; 2) If disagree; 3) If agree; 4) If strongly agree
Problem identity (PI)	The distinctiveness of key stage problems as identified by business owners. This is a measure of the ease with which a business owner identifies key business stage challenges which in turn assists in sourcing suitable funding. It is an ordinal variable taking the values whereby (<i>i</i>) is: 1) If it is not possible ; 2) If it is very difficult; 3) If it is easy; 4) If it is quite easy

Source: Author's compilation for this study

(iii) The theoretical basis for using binary logistic regression

The theoretical basis for using binary logistic regression is that the use of finance can be understood as a binary capital investment decision. In this case, as explained by the theory of capital structure, a firm has a choice between using own capital (internal funding) and debt capital (external funding that may require repayment). The static – trade-off theory of Modigliani and Miller (1963) explains how this binary choice scenario has implications on the growth of the business as well as the retaining of ownership control.

In this study the principal decision facing the agricultural owners is whether to use internal funding or external funding at each stage in the business life-cycle. As such binary logistic regression as well as Odds ratio of the use of funding is quite suitable for this analysis.

Binary logistic regression measures the relationship between a categorical dependent variable and the independent variable. This is the most suitable method for estimating the relationship between the use of stage-funding as a categorical dependent variable and each of its categorical predictors. Given that the use of funding at a particular life-cycle stage is dichotomous (used or not used), a numerical value for it cannot be predicted using logistic regression. The Ordinary least squares estimation method for

best fit which uses minimization of error around a line of best fit cannot be used also. Hence, the best way to estimate the relationship is through binary logistic regression which utilizes binomial probability with two values (used or not used at a particular stage) to estimate. In this case, the Maximum likelihood estimator method (maximizing the likelihood of putting the observed data in the right classification) is used.

(iv) Estimating the relationship between use of stage funding and its predictors

In estimating the relationship between funding use and each of the independent variables, the following steps were followed. Firstly, binary logistic regression modelling employing dichotomous dependent variables (whether a type of funding was used or not) was conducted for each of the determinants. The analytical tool used for a binary dependent variable and the testing of the hypotheses included the dichotomous variables whose probabilities are bounded by 0 and 1.

Secondly, these results were each analysed to check if each variable had a statistically significant influence on the use of funding per stage. The stepwise automatic variable selection procedure was used to produce the best models at 10 percent level of significance given the data. This procedure produced the final models through automatic selection of significant variables as opposed to either the backward or forward stepwise variable procedures. A logistic regression equation was then fitted with the beta for each variable.

The third step involved assessing the overall performance of the estimated regression model. In this case, the likelihood ratio chi-squared test was used to test for model goodness of fit. If the p-value for the likelihood ratio test is less than the significance level, then the predictors in the model are significantly associated with the response (not necessarily all of them).

Lastly, the c-criterion was used to further assess the overall model performance by testing its prediction ability. A c-criterion value close to 1.0 shows high predictive ability of the estimated model. Ideally, models with c-values above 70% are considered to have adequate predictive ability.

The results of the analysis were displayed in regression tables showing the computed regression parameter estimates, standard errors, chi-squared statistics, p-values and

odds ratios and their 95% confidence intervals. These results were the final regression models showing the statistically significant predictors selected by the stepwise automatic variable selection procedure.

(v) Hypotheses and interpretation of regression parameters

In this study, the predictor variables outlined above are hypothesised to influence the selection and use of different types of finance along the business life-cycle. With respect to business stage (*BS*), the business owners were expected to rely more on the use of internal funding and donor funding at the initial stages. The use of internal funding was expected to decline in later stages as the owners gain capacity to source and use external funding. While the use of types of funding varies by type of agricultural activity (*AA*), the type of activity was also expected to influence the life-cycle financing of businesses significantly. In other words, significant differences were expected in terms of life-cycle use of funding across different types of agricultural activities (crop, animal, poultry, horticulture and agribusiness).

In terms of age (*AG*) of the business, agricultural SMMEs that have existed for longer periods were expected to use more appropriate external finance than relatively younger ones. With ownership structure (*OS*), sole proprietorships and family owned businesses were expected to use more internal funding and to be limited in their use of external funding along the business life-cycle. Greater annual turnover (*AT*) and the total value of assets (*VA*) were expected to reduce the business owner's use of external funding.

A larger number of employees (*NE*) (as a proxy for size of business) was expected to be linked with use of more external funding along the business life-cycle. Business owners with higher levels of awareness (*FK*) of funding options were expected to use a wider variety of external funding along the life-cycle. Greater use of funding advice (*FA*) was expected to lead to the use of more external funding options. In the case of funding adequacy (*FAD*), funding options considered as adequately addressing business needs were expected to be more likely used along the life-cycle than those that partly addressed business needs. Similarly, funding options that previously proved highly beneficial were expected to be used more often along the life-cycle than those that were considered less beneficial. With respect to identification of problems along

the business life-cycle, the business owner's ability to clearly identify the major business problems was expected to help in using the most suitable types of funding.

With respect to the binary logistic regression analysis conducted, the parameter estimates (β) in the equations show the direction of association between the funding use (response variable) and the predictors. Positive estimates show a positive direction of association whilst negative estimates show negative direction of association. The standard errors of the parameter estimates are measures of stability of the estimates. The smaller the standard error, the more stable the estimate for the relationship between funding use and the predictors.

The chi-squared test was used to test for the significance of the association between funding use and each of the predictor variables identified by the stepwise procedure. Small values reflect weak associations and the p-value is a measure of whether the chi-squared statistic is large enough to suggest a significant association. The p-values show statistical significance if they are small, smaller than the significance level. This analysis was based on a 5% (0.05) significance level.

The 95% confidence intervals of the odds ratios are measures of stability of the odds ratio estimates. The closer the lower confidence limit (LCL) to the upper confidence limit (UCL) of the interval, the more stable the estimate. Odds ratios (OR) measure the strength and direction of association between the response and predictor variables. They quantify associations and their confidence intervals therefore can be used as tests for statistical significance tested using the chi-squared test. Odds ratios of 1.0 reflect no association while those greater than 1.0 are reflective of a positive association and those less than 1.0 reflect negative association. As such, if a confidence interval of an odds ratio contains 1.0, then the association is not statistically significant. For this reason, Odds ratios are used to test the association between funding use and a number of factors identified.

(vi) The use of specific type of stage funding

As a follow-up to the binary internal/external funding use, the study further investigated the specific financing sources used at each stage. This analysis made a break-down of the use of the external funding into bank, donor and contract finance along with own funding for at each stage. This was done to check if there were variations in the use of these specific types of funding along the business life-cycle. In this case, the two

variables of concern were both categorical and these were funding use and life-cycle stage. The predictor variable was the life-cycle stage while the dependent variable was the use of specific source of funding at that stage by business owners.

To identify the pattern of use of the specific types of funding, the commonly cited funding for each stage were inspected and categorized. Frequency analysis was performed at each life-cycle stage to determine the mostly used type of funding. The use was measured by the number of business owners who cited it at a particular stage. The proportions were then expressed as percentages and presented in the form of a pivot table (Table 4.8).

Table 4.8: Pivot table of proportionate use of specific types of funding

Life-cycle stage	<i>Life-cycle funding</i>				<i>Total</i>
	Own (%)	Bank (%)	Donor (%)	Contract (%)	
1.Inception					
2.Setting up					
3.Growth					
4.Expansion					
5.Maturity					
6.Debate					



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Row percentages showed the proportionate use of types of funding for each stage. Higher percentages showed predominant use. The columns related to the use of each type of funding throughout the business life-cycle. Each column therefore revealed how the proportionate use of each type of funding changed from inception stage to decline stage.

This reflected the extent to which business owners shifted from one type of funding to others as their businesses developed through the stages. If variation in the use of specific types of funding existed between stages, then a financing pattern could be deduced. In that case, there was no similarity in the way the types of funding were used throughout the stages. The conclusion was that owners were sensitive to stage-specific challenges and the varying funding needs. They were knowledgeable of the need for searching different type of funding. This was further interpreted as an attempt to apply life-cycle financing approach. If, however, the proportions remained the same, then owners were not knowledgeable of a variety of suitable funding options and the

need to vary the use of types of funding in response to evolving business operational problems. This analysis checked whether the results from regression analysis could be further supported.

The observed pattern in the use of the specific types of funding was then compared with the submissions of financing executives based on their experiences with how SMMEs were funded. It was further compared with what is postulated in theory as well as the findings in empirical literature. The comparison was based on the argument that some types of funding are ill-suited for financing certain life-cycle stages (OECD, 2019; OECD, 2018). As a result, knowledgeable agricultural SMME owners were expected to vary financing patterns in response to changing stage needs and challenges.

4.4.3 Analysis of appropriateness of life-cycle stage funding

The third objective of the study sought to establish the appropriateness of the stage funding used by business owners. To check that, the business owners were requested to identify the most problematic stage, the main problems encountered at that stage, state the main type of funding used at that stage, state and explain whether funding was appropriate and adequate to address the key problems encountered and highlight those problems not adequately addressed. These aspects were analysed through a qualitative approach and the results are presented in Chapter Six.

(i) Identifying the most problematic stage

The most problematic stage is the key life-cycle stage that presents the most difficult problems which have the worst impact on the development prospects of a business. Such a stage contributes more to business failure rate than those characterised by problems with less damaging effects. When funding agricultural SMMEs, it is vital that the most problematic life-cycle stage or stages are identified and appropriately financed. This increases the chance for business survival and growth.

To identify the most problematic stage, two qualitative methods were used. These were simple identification and Qualitative-Failure Modes, Effects and Criticality Analysis (Q-FMECA). Firstly, agricultural SMME owners were asked to identify the most problematic stage in the business life-cycle. The variable of interest was the most

problematic stage. Through simple identification, they were required to cite the stage based on their own overall assessment using both their knowledge and experience.

After collating the responses, frequency tallies were done to determine the stage most cited by business owners. Using the frequency tallies, a rank-order was generated for all the six stages. The most problematic stage emerged as the one mostly cited by business owners on the rank-order. The least on the profile was the stage considered least problematic with encountered problems posing the least threat to business continuity. The rank order results were presented in a tabular form.

Given that with this approach, business owners did not qualify their basis for identifying a stage as problematic, it was necessary to check if the rank-order by simple identification method could be confirmed using Qualitative-FMECA as a second method. The FMECA method is a risk analysis tool used in assessing how a system, process or product is susceptible to failure given the presence of certain factors (Lipol and Haq, 2011). Traditionally used in engineering, the method now has broad application including in risk analysis and corporate finance (Gido et al., 2018). The adapted version used in this study used three risk assessment factors to determine the most problematic stage. These were occurrence of key problems, severity of stage problems when they occur and ease of detecting the stage problems. The three factors interact to determine the most problematic stage as illustrated in Figure 4.5 below.

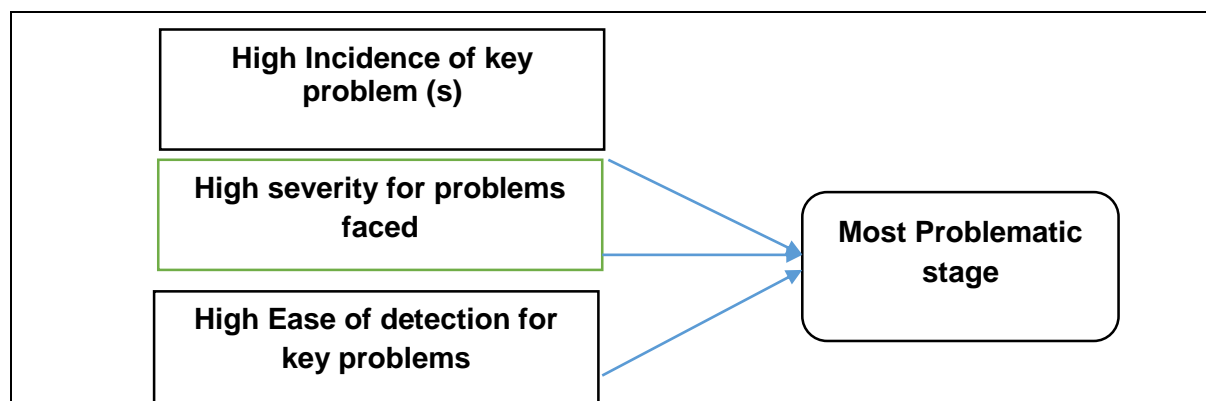


Figure 4.5: Adapted Q-FMECA Model used
Source: Author's own diagram for this study

Occurrence or incidence of key problems is a measure of the prevalence of the main problems at a particular life-cycle stage. Rating of occurrence is a qualitative proxy for the probability of key problems materializing. High prevalence indicated how routinely

the key problems were experienced. This posed great challenge to business owners when navigating through the stage. If key problems had low incidence, this showed that there was less danger that the business would eventually collapse. Severity rating of the problem faced is a measure of how consequential the incidence of the problems is.

High severity showed that the problem had significant impact on the prospects for business survival where low severity meant the problem occurring was less damaging. Ease of detection is a measure of the problem being easily recognized as impacting business success. If a problem was not easily identified, it was difficult for business owners to quickly respond to it and seek the relevant interventions, including suitable funding to address it. Each of the three factors was measured on a scale of 1 to 10, with 10 indicating highest rating and 1 lowest rating.

Due to lack of quality failure-rate quantitative data for agricultural SMMEs in Zimbabwe, Qualitative-FMECA was the most suitable method for use in determining the problematic stages (where businesses mostly fail). This uses qualitative ratings or judgments by the business owners as measures of the degree or likelihood of business failure at a particular stage due to the key problems cited. For each stage, agricultural SMME owners provided individual qualitative ratings for the occurrence of the main problems. These qualitative ratings showed the business owners' considered judgment regarding the incidence of main problems at each stage. The individual ratings for incidence of the key problems per stage were summed up and averaged using the formula:

$$\text{Average Occurrence rating/stage} = \frac{\sum (O_1 \dots O_N)}{N} \dots \dots \dots \text{(Equation 4.4)}$$

Where 1.... N are the individual owner qualitative stage ratings, each out of 10.

The results were displayed in a Risk Matrix Table 4.9 as shown below.

Table 4.9: Qualitative Risk Assessment Matrix used to derive rank-order of stages

Stage of Potential Failure Mode	Ave. Occurrence rating (O)	Ave. Severity rating (S)	Ave. rating: Ease of Detection (D)	RPN = O*S*D	Stage Rank
Inception					
Setting up					
Growth					
Expansion					
Maturity					
Decline					

The average qualitative ratings for Severity (S) and ease of detection (D) were also computed for each stage using the same formula adjusted in each case, that is:

$$\text{Average Severity rating/stage} = \frac{\sum (S_1, \dots, S_N)}{N} \dots \dots \dots (\text{Equation 4.5})$$

$$\text{Average ease of Detection rating} = \frac{\sum (D_1, \dots, D_N)}{N} \dots \dots \dots (\text{Equation 4.6})$$

Results from the calculations were also presented in the risk matrix table. For each stage, the three average ratings were multiplied to produce one index number, called the Risk Priority Number (RPN) as follows:

$$\text{RPN} = (O * S * D) \dots \dots \dots (\text{Equation 4.7})$$

Where $RPN_{min} = 1$ and $RPN_{max} = 1000$, that is $[O * S * D = 10 \times 10 \times 10]$.

The RPN shows the interplay of the three variables with respect to the main problems at a particular stage. The risk priority numbers were then considered in descending order. The highest RPN showed the stage with the highest combined rating for the three factors and therefore being the most problematic stage as rated by business owners. By ranking the stages according to descending order of RPN, a profile of the stages from the most problematic to the least was created.

This method provided a better basis for measuring the extent to which a stage is ranked as problematic in relation to the other stages in the absence of quantitative failure rate data. By identifying the rank-order, business owners and support agencies

could ensure that the most problematic stages were prioritized and appropriately financed to enhance the chances of business survival. The results of the two methods were compared to check for any similarity and consistency the identification of problematic stages. Consistency in the rank-order reflected on of the level of understanding of the life-cycle dynamics of their businesses as well as the extent to which their ratings could be relied upon.

The results of analysis of most problematic stage as given by agricultural SMME owners were further compared with the assessments by executives in institutions that offer funding for these businesses. The executives were requested to indicate the most problematic stages for agricultural SMMEs based on their experiences. Their assessments were considered important given that they are based on expert knowledge and experience from interacting with the businesses throughout the business life-cycle stages. Furthermore, the results were compared with findings in available literature on the main stages at which SMMEs mostly face major challenges



(ii) Analysis of key stage- problems encountered

After identifying a rank-order of the problematic stages, it was necessary to analysis the major problems cited at each of the key stages. The business owners were asked to indicate the main problems at each of the main problematic stages identified. This identification was important given that stage funding should be targeted at addressing the key problems faced. Thus the dependent variable analysed was the main problem cited while the independent variable was the stage at which the problem was encountered. For each stage, the key problems identified were collated and the problem with the highest frequency was regarded as the main problem. At each stage, at most three most cited problems were regarded for this analysis as the main problems for the purposes of analysing appropriateness of funding used. The main problems cited by business owners were then compared with those identified by executives in organisations financing agricultural SMMEs. The comparison was necessary to validate the identification of key stage problems based on expert assessment.

(iii) Appropriateness of Funding used per stage

Taking into account the main problematic stages and their associated key problems, the business owners were asked whether the funding used at each stage was appropriate for addressing these critical life-cycle problems for their businesses. This was addressed through quantitative-qualitative analysis first and then through thematic analysis of the judgments made regarding appropriateness of funding used per stage. The response variable was a categorical variable “*appropriateness of funding*”. This is the extent to which finance used is judged to be suitable and well-structured including the tenor to match the financing requirements at the stage at which it is used. The independent variable was the problematic stage for which appropriate financing is a major strategic consideration.

The first part on the overall assessment asked business owners whether they thought funding used addressed the key stage problems cited. The response was measured on a binary scale of “Yes” or “No” for appropriateness of funding used. The proportion of those who considered funding used as appropriate was computed and expressed as a percent of the total sample of business owners. The higher the proportion, the greater the number of the business owners who were satisfied with the efficacy of funding used in addressing the business challenges at each stage.

The second part followed up by measuring the extent to which funding used addressed the most problematic stage challenges on a 5-point Likert scale. The five levels of measurement were “1=completely inappropriate”, “2=largely inappropriate”, “3=partly addressed major problems”, “4=satisfactorily addressed the main problems” and 5=“perfectly addressed all the critical problems per stage”. Frequency analysis was performed with results presented in tabular form. This gave an indication of the assessment of the appropriateness of funding used as expressed by the level with the highest frequency. As a third part of the assessment, the business owners were requested to explain the basis of their responses. The explanations provided were analysed qualitatively using thematic analysis to sift the main reasons and explanations for their assessments. Given the two sample design of the study, the assessments by the business owners were compared with assessments by financiers as well as with best practices highlighted in theoretical and empirical literature.

(iv) The adequacy of funding for problematic business stages

The adequacy of funding for the most problematic stages was evaluated. The agricultural SMME owners were requested to indicate whether funding for the key business stages was adequate. The adequacy of funding is an important dimension of availability of funding since funding needs to be available in adequate amounts. Thus adequacy is the extent to which funding is sufficient to resolve all the operational problems for which it is sought. The business owners were first asked to describe the level of funding. They were then asked to rank the business stages from 1 to 6 to reflect the stages according to the size of the funding gap, with 1=greatest funding gap and 6=smallest funding gap). Furthermore, they were required to state the key problems for which more appropriate funding was needed.

The descriptions of the level of adequacy were analysed qualitatively through thematic content analysis. This was used as an approach to establishing the assessments of the funding as sourced from the market by the business owners as well as the reasons being the adequacy levels. Thematic analysis was considered the best method to draw out the main views and judgments regarding adequacy of funding used.

The rank-order for the stage-funding gap was an approximation of the level of inadequacy of the funding used. The reflection on the funding gap was based on the premise that business owners need to secure adequate funding particularly at the most problematic stages of the business life-cycle. The inadequacy of funding compounds operational challenges and is a major contributor to business decline and eventual collapse. The stage with the highest funding gap may not necessarily be one of the most challenging operationally. However, if a large funding gap exists at one of the main difficult stages, this compounds the challenges and speeds up business decline. This explains why problematic stages need to be prioritized to ensure adequate and appropriate funding is secured.

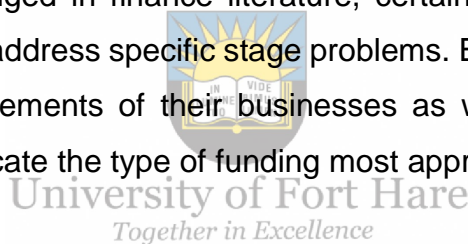
For the most problematic stages, in the event that funding was deemed inadequate, the business owners had to identify the key problems that needed more and appropriate funding. For each stage, these key problems were the response variables. The key problems were collated and subjected to frequency analysis and presented in table form. The problem mostly cited is regarded as one for which agricultural SMME

owners regard as under-funded and yet has great impact on the development of the business.

Financing executives were requested to indicate the key problems at the most problematic stages which required more funding. Frequency analysis was employed to determine the most commonly cited problems for which more appropriate stage funding is important. These were compared with ranking of stage funding gaps provided by business owners as well as those highlighted in literature.

4.4.4 Identifying suggested best practice stage financing

Based on their experiences with specific life-cycle stage problems as well as best practices, the fourth research question required owners to suggest specific stage funding that could best address the cited problems. The random variable analyzed was the suggested stage funding type while the life-cycle stage was the independent variable. As acknowledged in finance literature, certain types of funding are more suitable than others to address specific stage problems. Business owners well-versed with the funding requirements of their businesses as well as the suitable funding options are able to indicate the type of funding most appropriate at each stage.



Frequency analysis was performed per stage to identify the mostly cited financing options. This analysis also exposed the extent of knowledge of the owners regarding potential financing options. The type of funding mostly cited for each stage was regarded as the most suitable for a given stage by business owners. This was the type of funding that they would like to see adequately availed on the market in order to ensure that there are no bottlenecks in both funding and operations of their businesses. In addition to identifying the most suitable types of stage funding, they were asked to explain why they regarded those suggested as most suitable for each stage. Their explanations were analyzed qualitatively through thematic analysis to establish the most common reasons and justifications provided.

The suitable stage-funding suggested by business owners as well as their justifications were compared with those presented by financing executives. These executives were asked to present the types of funding that they view as most suitable and should be made available to best address the life-cycle needs of agricultural SMMEs. They were

further requested to explain and justify their suggestions with regards appropriate agricultural life-cycle financing. Their responses were subjected to thematic content analysis to discover key themes that emerged using the same thematic framework explained earlier.

4.5 Reliability and integrity of data and data collection instruments

Given the importance of ensuring trustworthiness of qualitative data, some measures were taken to boost the reliability of data collection instruments and the integrity of data. To ensure that the questionnaire items sought the right data, the instruments were pre-tested through a pilot study conducted. This focused on checking whether the respondents interpreted the questions as intended in the main study. The mini-study involved two financing institutions and ten agricultural SMME owners located in the Harare cluster based on accessibility considerations.

The results of the pilot study showed that some questions required rephrasing to clarify. The questions rephrased are those relating to the sources mostly used, use of funding per stage, the rating of life-cycle stages based on the three FMECA elements and the need for suggested suitable funding for each stage. To improve the reliability of the instruments, these questions were fine-tuned and simplified so could be easily understood and captured the correct data.

During the main survey, additional measures were taken to enhance the trustworthiness of the qualitative data collected. One such measure was through conducting stakeholder checks which validated the data. Only owners and managers of agricultural SMMEs as well as finance executives in institutions financing agricultural SMMEs well requested to participate in the survey to ensure that qualified respondents provided data. This ensured that data analysed was valid as it was sourced from the relevant respondents. With respect to open-ended responses to the questionnaire, selected few easily accessible respondents were visited and asked to validate their responses.

For data gathered through the administered questionnaire, the completed questionnaire was shared with a few of the respective financing executives to confirm

the data captured before analysis commenced. The sequential approach used to collect data from financing executives helped in that, subsequent administering benefited from earlier experiences. This assisted as some informal conversations were used to verify earlier responses. This continually enhanced the quality of the data gathered. The verification of raw data was conducted as an integral error-correction exercise. The exercise was necessary so that analysis would proceed based on reliable and valid data.

Thematic analysis was done after skimming through all the responses. This ensured that the emerging themes were reflective of the common perspectives, views and ratings rather than being just a few striking descriptions which would yield a partial picture. During the identification and analysis of emerging themes, multiple data sources were consulted. This involved checking the emerging themes from the administered questionnaire responses against those from responses by owners and managers in the completed survey questionnaire. Both were then further compared with themes arising from related literature on agricultural SMME life-cycle financing. The aim of this triangulation exercise was not to unify or bunch the emerging themes from the two questionnaires and literature review. It actually assisted in informing and creating a broader base for the process of shaping and categorizing of themes. This exercise created some convergence which built confidence in the quality of the themes generated.

The identification and analysis of themes was opened up for independent scrutiny. An independent coder was asked to review the coding process for all the open-ended questionnaire responses. Comparison of the researcher's coding and themes with those of the independent coder ensured greater trustworthiness in thematic analysis through checking for inter-coder reliability. Furthermore, discussions with study supervisor helped in boosting intra-coder consistency, thus enhancing the trustworthiness of the analysis.

Throughout the thematic analysis, notes were kept documenting the decisions taken in the identification and categorizing of themes. The notes assisted in being consistent in analysis and tracking all steps in the process. This ensured that there were no contradictions in the process, thus enhancing reliability and trustworthiness of the

data. Since the aim of the analysis was to seek insight into agricultural SMME owners' and financiers' perspectives, behaviours and experiences, quotes that reflected these aspects were carefully selected. The identification of emerging themes was therefore backed up by evidence drawn from verbatim quotes that reflected SMME owners' and financiers' behaviours, perspectives and experiences.

4.6 Research ethical considerations

In preparing and conducting this study, several measures were taken to ensure that the whole exercise complied with some ethical standards generally expected for primary research involving human research subjects. The first measure was to apply and be granted a Research Ethics Committee clearance certificate by the University of Fort Hare. This clearance certificate (Reference number: SIMO31SKIC01) was granted on the 15th of December 2016 (Appendix E).

Secondly, the data collection instruments were designed in such a way as to satisfy content validity as an important component in building the integrity of the study. This was further strengthened by conducting a pilot study which helped to refine the study instruments and ensure that respondents understood the purpose of the study. Thirdly, the four well qualified research assistants who collected data from agricultural SMME owners were first trained before being commissioned to ensure that they understood the purpose of the study, the instruments used and the data collection procedures required to comply with the university ethical research code of conduct.

The fourth measure taken was to ensure that all administrative procedures for primary data collection dealing with human research subjects were adhered to. This included seeking permission through relevant gatekeepers to conduct the study. In every case, prior communication was established and appointments made to establish rapport and explaining the purpose for the study. This ensured that the rights of participants were not violated and the data collection process was as convenient as possible for them.

Given the sensitive nature of agrarian reforms in Zimbabwe and the role that agricultural SMMEs are set to perform, a clear explanation of the nature and purpose

of the study was necessary. This helped to clarify that no sensitive and proprietary information was required for the study. Sensitivity to the circumstances of respondents in field research was vital as it enabled an understanding of why certain practices and preferences were followed (Holstein and Gubrium, 1995) as well as their freedom to participate. As a result, a fifth measure taken was to use a letter of introduction that carefully spelt out the purpose, nature and intent of the study, indicating also the sponsors of the study.

The respondents were assured of their right to voluntarily participate or to withdraw in the event that they no longer wanted to further involve themselves with the study. This was important in ensuring that they would take part in the study based on informed consent. Following their consent, they were requested to sign a separate consent form (Appendix C) not linked to the data collection instruments to further guarantee them privacy and confidentiality. The participants were further informed about how the results are to be disseminated any how they would get access to the findings. Lastly, as much as possible, all sources of other information used for the study were acknowledged accordingly.



4.7 Chapter summary **University of Fort Hare** *Together in Excellence*

The chapter described the research methodology used as a survey research using a mixed methods approach. The nature of the study, its philosophical foundations and sequencing were detailed including the two study populations, the multi-stage sampling strategy used and composition of the final samples. A semi-structured survey questionnaire was used to gather data from agricultural SMME owners while data from financing executives in institutions financing agricultural SMMEs was collected through an administered semi-structured questionnaire.

Data analysis and methods used as well as interpretation were explained objective by objective. The first objective related to the level of knowledge that business owners have about financing sources available, the mostly used specific types of funding, the assessment of affordability, challenges faced by business owners when sourcing funding and whether such challenges influenced their selection and use of types of funding. The link between level of knowledge and each of a number of its predictors was assessed using binary logistic regression analysis.

The second objective sought to establish the use of funding along the six business stages of the model used for this study. The third objective determined the appropriateness of stage funding used. To achieve that, a rank-order of the business stages was established with the main problematic stages identified using a Qualitative-FMECA approach. The key problems for each stage were analysed against how they were typically funded.

The suitability of stage funding was measured by the extent to which such funding was completely inappropriate, inappropriate, partly appropriate, satisfactorily and perfectly addressing all the challenges as assessed by business owners. This was further contrasted with the most ideal way for funding each stage as explained in literature. Lastly, the fourth objective was addressed through analysis of the suggested best practice funding options for use at each stage of the business. The overall results of the analysis are important for developing a life-cycle financing framework for agricultural SMMEs which could improve their financing and survival prospects. The following chapter discusses the results of the first two research objectives.



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CHAPTER FIVE: AWARENESS AND USE OF AGRICULTURAL SMME FINANCING

5.1 Introduction

This chapter discusses the level of awareness of funding sources available for agricultural SMMEs in Zimbabwe and how such funding sources were used at different stages of the business life-cycle. Section 5.2 presents descriptive statistics with respect to the agricultural SMMEs and financing institutions that participated in the survey. This is followed in section 5.3 by a discussion of the owners' awareness of sources of funding available, the sources mostly used and affordability of such funding, the main challenges faced by business owners when sourcing funding and the extent to which such challenges influence the selection of financing sources used. The results of the analysis of use of funding sources at different stages in the business life-cycle are presented in section 5.4. Section 5.5 discusses the results and chapter summary is presented in section 5.6.



5.2 Descriptive statistics

This section presents description of sample of agricultural SMMEs and financing institutions surveyed.

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5.2.1 Sample statistics for agricultural SMMEs

Table 5.1 displays some statistics related to key characteristics of agricultural SMMEs whose owners participated in the study. These characteristics are the agricultural activity or business type, the age of the business, the ownership structure, and annual turnover, the total value of assets, the number of employees and the location of the business in Zimbabwe.

Sample description

Table 5.1 Sample characteristics and statistics for agricultural SMMEs

Characteristic	Category	Frequency	Percentage (%)	Average Age range	Average turnover range	Ave. range of Assets value held	Ave.range: Number of employees
Business type	Crop	76	23.7	-	-	-	-
	Animal	54	16.9	-	-	-	-
	Horticulture	53	16.9	-	-	-	-
	Poultry	105	32.8	-	-	-	-
	Agribusiness	32	10.0	-	-	-	-
Business Age	≤1yr	111	34.7	-	-	-	-
	2yrs	58	18.1	-	-	-	-
	3yrs	56	17.5	3 years	-	-	-
	4yrs	26	8.1	-	-	-	-
	5yrs and above	69	21.6	-	-	-	-
Business ownership	Sole	198	61.9	-	-	-	-
	Family	86	26.9	-	-	-	-
	Partnership	36	11.2	-	-	-	-
Annual turnover (US\$000)	<100	129	40.3	-	-	-	-
	101-240	80	25.0	-	101-240	-	-
	241-499	61	19.1	-	-	-	-
	500+	50	15.6	-	-	-	-
Assets (US\$)	<50 000	246	76.9	-	-	<50 000	-
	50 000-1 000 000	62	19.4	-	-	-	-
	1 000 000-1 000 000+	12	3.7	-	-	-	-
Number of full-time employees	< 5	216	67.5	-	-	-	<5
	6-40	91	28.4	-	-	-	-
	41+	13	4.1	-	-	-	-
Location of business	Harare	101	31.6	-	-	-	-
	Bulawayo	59	18.4	-	-	-	-
	Mashonaland			-	-	-	-
	East	95	29.7	-	-	-	-
	Manicaland	65	20.3	-	-	-	-

Source: Author's compilation based on survey data

(a) Type of business activity

With respect to agricultural activity, 32.8 percent of businesses were engaged in poultry production while crop production (23.7 percent), animal husbandry (16.9 percent), horticulture production (16.6 percent) and agro-processing (10 percent) complete the profile.

(b) Age of agricultural SMME activity

About 53 percent of agricultural SMMEs which were two years old and below were mainly engaged in the poultry and horticultural production. These activities were characterized by several production batches and cycles during one season or year. Since there is high intensive activity in a short space of time, it is possible for them to experience many stages of the business life-cycle in a year or two. This explains how owners of fairly young businesses were able to cite finance used at typically later life-cycle stages such as expansion and maturity. The average age of the agricultural SMMEs was 3 years. Nearly 22 percent were five years and above and they were mainly in agro-processing and animal husbandry. This age profile however reflects how difficult it is to sustain the businesses in a challenging economic environment.

(c) Ownership structure

The ownership structure was classified into three broadly categories which were sole proprietorship, family business and all forms of collaborative ownership collectively referred to as partnerships in this study. As depicted in Table 5.1, the sole-proprietorship was the dominant structure with 64 percent of the businesses, while family owned enterprises constituted 24 percent and 11 percent being some form of collective ownership. Ownership structure is acknowledged in finance literature as a major factor influencing the decisions regarding sourcing and financing a business venture. For instance, the desire to limit exposure to debt, or to retain control of the business is often behind the over-reliance on own sources of finance, despite such financing not being appropriate.

(d) Annual turnover

Annual turnover is another important factor that influences the decision to source funding internally or externally. It reflects the potential flow of internal funds and the necessity of externally sourced finance. Businesses with high annual turnovers often rely more on internal funds. Alternatively, this may give them enough security and confidence to approach external financiers, confident of their ability to meet repayment terms. The majority of agricultural SMMEs (77 percent) have annual turnover less than US\$500 000 and only about four percent have annual turnover of US\$1 million. The average amount of annual turnover was within the range US\$101 000 to 240 000. It reflects that most were on the smaller-size end of the profile by annual turnover.

(e) Total value of Assets

As in the case with annual turnover, 77 percent of the businesses have total assets value not exceeding US\$50 000. The average size of the asset value held fell in the range of up to US\$50 000. Only 3.7 percent have assets that were above US\$1 million. The more total assets a business have, the greater the prospects of security external funds. Such assets may be pledged as collateral security that financiers, especially banks use as a vital indication of a business' ability to have loan repaid.

Businesses with small asset bases were reported in literature as facing a major challenge in raising enough assets to pledge as security to meet loan qualification criteria. Table 5.1 shows the profile of the surveyed agricultural SMMEs in terms of the range of total assets in which they fit. Given the sensitivity around disclosing financial information, it was treated as enough for the business owners to only indicate the range within which their total assets and annual turnover fall.

(f) Number of full time employees

Another facet of the profile is the number of formal employees that a business has. This is used as a measure of size in the absence of accurate figures on annual turnover and asset value which were more linked to firm growth and size. For agricultural activities, number of formal workers is more often used as a measure of size. Nearly 68 percent of the owners formally employ not more than five workers. This is a result of the high cost of labour and the difficult operating environment posing major challenges to employing more workers. Employing more workers requires that businesses engage banks regularly to access bridging finance to cover cash-flow and address working capital challenges such as timely wages and salary payments.

(g) Location of the business

The last firm characteristic considered is the location of the agricultural SMME activity. Distance from the major financial centres affects access to a greater variety of financing sources or options. The further a business activity is located away from the main financial centres, the limited it is in accessing a variety of funding options or sources. Nearly 32 percent of the businesses were located in and around Harare, the main financial hub in the country. Those based in Mashonaland East were also relatively close to Harare and also access financial services in the provincial capital of

Marondera. About 18 percent of the businesses were based in Bulawayo and surrounding areas where significant livestock production occurs while Manicaland province hosted 20 percent of the agricultural SMMEs surveyed. Since all the businesses were based relatively close to at least the main provincial centres, location is regarded as not played a major effect in restricting the use of various funding sources.

5.2.2 Sample description for financing institutions

The agricultural financing executives were drawn from the institutions whose key characteristics were type of financier, experience in financing agricultural SMMEs, the estimated size of agricultural SMME financing portfolio, the main instruments used, technical and advisory services offered, location and area of operations (Table 5.2). The financing executives were drawn from three non-governmental organisations, one traditional banking institution, four deposit-taking micro-finance institutions, two micro-financiers and one government development finance agency.

Table 5.2: Profiling financiers of agricultural SMMEs

Type of financier	Total	Years of service	Largest Portfolio size (US\$)	Finance and Technical services	Area of operation
Non-Governmental Organisation	3	15+	+/-150 000	-Research and development grants -Input finance -Infrastructure finance -community credit guarantees -Training and development	Countrywide
Commercial Bank	1	15+	+/-150 000	-Working capital loans -Capital infrastructure loans -lease finance -loan guarantees -crop and livestock insurance -Credit advisory and project management services	Countrywide
Deposit-Taking Micro-Finance Institution	4	< 5	4.5 million	-Input loan finance -Working capital loans -Leasing finance loans -venture capital financing -Capital expenditure finance	Countrywide

Micro-Finance Institution	3	<5	1 million	-working capital loans -Input finance -Bridging finance -Infrastructure loans -Business advisory services -Project monitoring and evaluation	Countrywide
Government Development Finance .Agency	1	15+	+/-200 000	-Working capital loans -Infrastructure loans -Lease finance -Loan guarantees -Overdraft finance facilities -Crop and livestock insurance	Countrywide

Source: Author's compilation for this study

The micro-finance and deposit-taking micro-finance institutions had five years of experience in financing agricultural SMMEs while to the specialised government development agency has existed since 1925 in various forms. The commercial bank and non-governmental organisations had over fifteen years of experience. Non-government organisations and the specialised government development finance agency had portfolios of up to US\$150 000 and US\$200 000 respectively while the largest deposit –taking micro-finance institution had a portfolio of US\$4.5 million.

The commercial bank had about US\$150 000, reflecting the decline in participation of large-commercial financial institutions in funding agriculture as a result of challenges with the land tenure and the commercial value of the 99-year leases and offer letters that agricultural SMME owners have as collateral security. Most of the institutions offer working capital loans, infrastructure and bridging finance loans. The government development finance agency and commercial bank offer crop and livestock insurance. All the institutions offer technical and advisory services in various forms. The financing institutions involved in the study were all based in Harare but with countrywide operations.

Box 1 below is a sample of the general requirements for an agribusiness bank finance facility typically used to screen applications for funding from agricultural SMME owners (Commercial Bank of Zimbabwe,2019). These general requirements (as discussed in the following section) posed some challenges to business owners as they tried to source funding (for instance collateral security, insurance and land tenure).

Box 5.1. General requirements for agribusiness bank finance facility

Requirements at application for a funding facility

- The application must have an account with the bank
- Cover application letter indication the client's request, purpose and method of repayment for funds applied for;
- Official tenure of land (original offer letter, title deed or lease agreement from title holder;
- Brief business outline (project proposal) to cover current operations, proposed enterprises, marketing arrangements and project management structure.
- Collateral security being offered and attached supporting documents to cover borrowings
- Copy of national identity documents (individual applicant/or Company directors)
- Insurance policies covering key-man's life, crop/livestock, farm machinery, equipment and loan protection
- Current banking arrangements with other banks (Bank, branch, account number, branch relationship manager, time with the bank).
- Cash flow projection covering the tenor of the facilities being applied for
- Tobacco growers to submit Grower's Number
- Sugar cane farmers to submit cane milling contract or can purchase agreement (off-taker agreements)
- For capital items to be financed, attach copies of quotations
- Interest rate 15% per annum

For corporates add the following:

- Company registration documents
- Resolution by company directors/board members to borrow
- Brief business outline covering date of incorporation, shareholding structure, market, competition and future plans;
- Financials for the past two years (income statement and balance sheet)-signed off by directors
- Latest management accounts (income statement and balance sheet)-signed off by directors
- Aged debtors and creditors analysis

Source: Commercial Bank of Zimbabwe (2019)

5.3 Awareness and use of finance

The first research objective sought to establish the level of knowledge or awareness that agricultural SMME owners or their proxies have regarding the available financing sources and instruments on the market. It further requires them to state which ones were commonly used. The following subsections discuss the results of analysis of sub-issues linked to this research objective.

5.3.1 SMME owners' awareness of sources of financing available

The level of awareness of financing sources and instruments on the market is instrumental in the selection and use of funding. In this case, the variable analysed is the level of awareness. This is measured at four levels which are: *Highly/very much aware, fairly aware, moderate and limited awareness*. The level of awareness is reflected by the range of financing sources and instruments cited by business owners in response to the question on what sources and instruments were offered on the market. The study focuses only on the main financing sources available. Results of frequency analysis of financing sources cited and hence the level of awareness is shown by Figure 5.1 below.

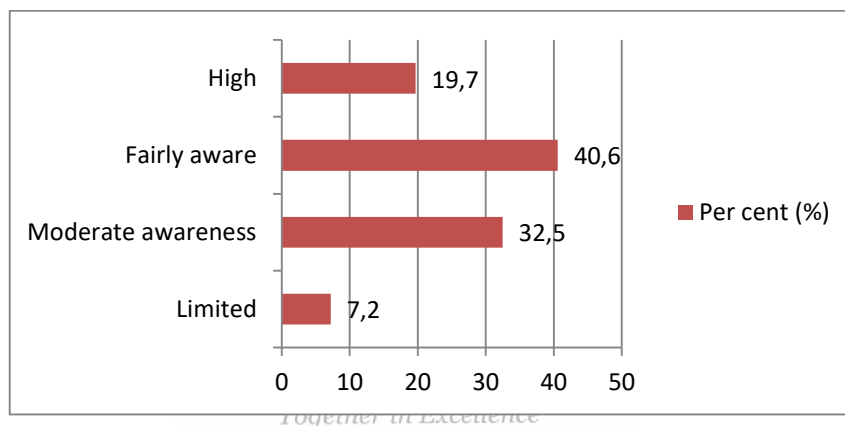


Figure 5.1: Agricultural SMME owners' awareness of finance sources available
Source: Author's calculations based on survey results

As shown in the table above, about 20 percent of the SMME owners cited at least four financing sources, reflecting that they were very much aware of the financing sources on the market. Coupled with about 40 percent who cited three sources, this yields a combined total of 60 percent of the agricultural SMME owners considered to be fairly to very much aware of the main financing sources available on the market. The level of awareness is an important determinant of the owners' ability to source finance offered on the market.

High level of awareness is associated with greater ability to secure funding from a variety of financing sources and using a variety of instruments. On the other hand, limited awareness also means they were constrained in terms of what they can use to finance their business ventures. In this case, since a cumulative 60 percent of the

owners were fairly to very much aware of a variety of funding sources, this reflects that the level of awareness of funding sources is not a major barrier to the selection and use of available financing options along the business life-cycle.

While the results discussed above show the level of awareness of financing sources on the market, it is necessary to reflect on the specific financing sources they cited as available. These were cited as available to different degrees. Awareness of the specific financing sources and options means that financing decisions were made based on knowledge of what each source and type of finance can offer. This is important because various financing sources offer financing options structured differently. This is meant to better address unique financing needs for businesses during specific stages of their life-cycle. Therefore, a financing source or instrument is used based on the owner's intimate knowledge of the main financing needs of the business.

Four broad categories of financing sources and how they were cited as available for financing the subsector (Figure 5.2).

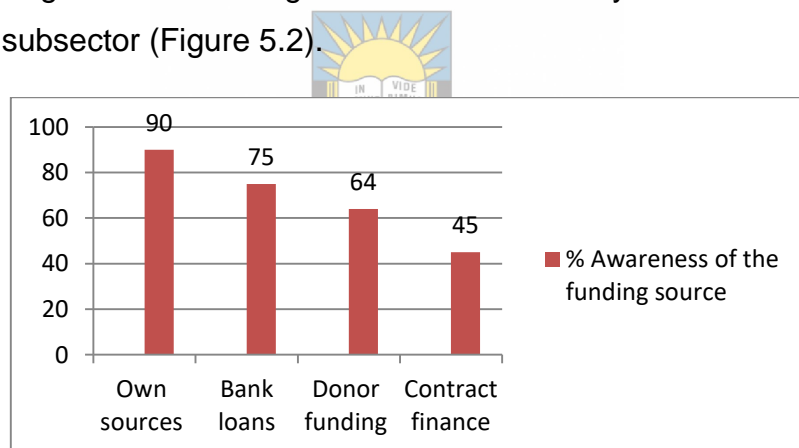


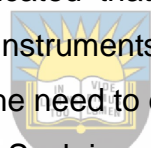
Figure 5.2: Agricultural SMME owners' awareness of specific sources of finance
Source: Author's calculations based on survey data

Of the four broad categories, own sources or internal sources were cited by an overwhelming 90 percent of the surveyed agricultural SMME owners, showing its popularity as the primary source of funding. Also, this is the source that is used when no external funding is required. Business owners usually want to know about external sources when internal funding (whatever the size) has proved to be inadequate. This is followed by bank loan as one of the known sources (75 percent), donor funding (64 percent) and lastly, contract finance at 45 per cent. This profile of awareness of the specific funding sources reflects that awareness is inclined more towards traditional funding sources. Traditional sources were own savings and other internal sources,

bank loan finance as well as donor funding. This is opposed to awareness of newer sources such as contract finance and other relatively new and better structured alternative SMME financing suggested in literature and also offered by some agricultural SMME financiers in Zimbabwe.

To put this level of awareness into perspective, a comparison was done between the funding sources that agricultural SMME owners were aware of and those that agricultural SMME financiers indicate as available. In response to the question on the types of finance available on the market, agricultural SMME financiers identified specific funding options and instruments summarized in the Table 5.2.

A comparison of the information in Table 5.2 and Figure 5.2 shows that financiers offer far more variety of funding options than what the business owners cited. This could reflect the conservative nature of most agricultural SMMEs which restricts them to familiar financing approaches and options in an economy dominated by uncertainty. Agricultural SMME financiers indicated that they were ever introducing new and innovative financing sources and instruments on the market taking into account the evolving needs of the clients and the need to ensure full and timeous repayments in a challenging business environment. Such innovative funding instruments include asset and salary-backed finance facilities, order financing, leasing and factoring.



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5.3.2 The Finance sources and instruments mostly used

Following from the level of awareness, the business owners were asked to provide a rank-order of the main financing sources they used. Results of analysis of the financing sources mostly used were summarized in Table 5.3 below.

Table 5.3: Finance sources mostly used by agricultural SMMEs

Rank	Financing source used
1	Internal (own, family, retained profits, asset disposal)
2	Bank loans
3	Contract finance
4	Donor funding

Source: Author's compilation based on survey results

The results indicate that internal sources of finance rank as the predominantly used source. Bank loans were the second mostly used, with contract finance as third and the least used source of funding respectively. In this study, own or internally sourced

funding includes own savings, family savings and retained profits. Bank finance refers to funding sourced from banks and micro-finance institutions in various forms and for which repayment with interest is required. Donor funding include all developmental and concessionary funding from both family and outside sponsors. Contract finance is the financing arrangement between the agricultural SMMEs and funders who provide finance and inputs for production based on an off-take agreement that the output is delivered to the financier. It includes both government and private contract financing schemes. The level of use reflects the main financing sources and instruments the owners predominantly relied on to finance their businesses. This rank-order reveals the extent to which SMME owners tend to be dependent on internal sources of funding. A number of factors linked to this rank-order include the high collateral demands and strict qualifying criteria set by external creditors, high cost of external borrowing and the desire to retain control.

The finance executives indicated that the type of funding they offered was mainly influenced by the agro-based nature of the Zimbabwean economy, hence the need to provided funding for agricultural SMMEs. They also catered for the low-income bracket that is often marginalised with respect to access to finance. However, the type of funding mostly sought depended on the financier. Bank and deposit-taking micro-finance institutions pointed out that business owners mostly sought different types of loan facilities. These were mainly input and bridging finance. Development agencies cited development funds such as seed capital, research grants and funding for training and capacity building.

5.3.3 Affordability of available agricultural SMME finance

Affordability of available finance is a key determinant of selection and use of such funding. Agricultural SMME owners were asked to rate affordability of available funding on a scale calibrated from *very much affordable to affordable, not affordable to very expensive*. The results from analysis of the owners' judgments are shown in Figure 5.3 below.

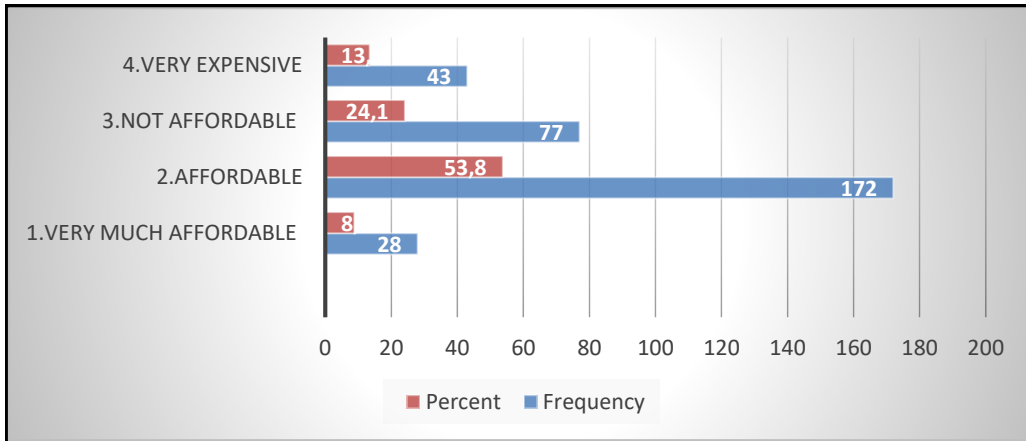


Figure 5.3: Rating of Affordability of funding
 Source: Author's calculations based on survey data

Nearly 63 percent regarded available finance as very much affordable to affordable. However, the predominant use of own sources of funding revealed above suggests that this judgment of funding as affordable relates more to securing internal rather than external funding. This is confirmed by the follow-up explanations offered for affordability rating. The explanations were split between those who regarded funding as unaffordable and those who considered it as affordable. The majority regarded funding as unaffordable. Using the framework displayed in Figure 4.2, thematic analysis of their explanations yielded some main themes which are summarized in Table 5.4 below.

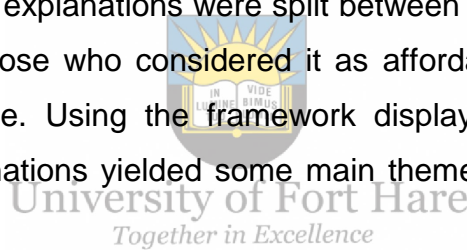


Table 5.4: Emerging themes about unaffordability of SMME funding

Theme Node	Organizing themes	Emerging Themes	Global Theme	Meaning
Short term funding	Source of funding	Not matching project needs	Funding not affordable	Those who found funding not affordable cited high cost of borrowing, collateral demands, the short-repayment periods, funding type and lack of proper project management skills and viability as key impediments to affording raising funding
Salary-backed bank loans		High indebtedness		
Interest rate High collateral		High interest rate		
Short repayment periods	Cost of capital			
Limited funding	Size of Capital acquired	Delayed approvals		
Credit approval	Timing of sourcing			

Source: Author's compilation based on survey responses

In their explanations, business owners cited high interest rates on external borrowing. The high interest rates are as a result of difficult economic conditions which in turn

make such finance unaffordable. In addition, tough collateral security requirements and the short-repayment periods were cited as key impediments to affording external funding. For instance, one of the owners explained that:

“The sources of finance were very expensive because interest rates were very high which makes it difficult to borrow loans from banks. Also to buy goods on credit was difficult due to high interest rates” (Respondent 46).

This was supported by another business owner who indicated that *“payment terms and interest rates [were] prohibitive [and] needed collateral security” (Respondent 89)*

Various emerging themes from the analysis of explanations offered by SMME owners who regarded funding sourced to be affordable are summarized in Table 5.5. below.

Table 5.5: Emerging themes about affordability of SMME funding.

Theme Node	Organizing themes	Emerging Themes	Global Theme	Meaning
Donor funding Angel investors Member contribution Government contract finance	Source of funding	No repayment costs Amount agreed upon by members All requirements funded by government	Funding is affordable	Funding was affordable especially for business owners who were funded by donors, angel investors, family members as well as those who did not require large capital, a few who managed to secure bank loans at favourable terms, borrowed long term and some who secured funding well in advance
Depends on management Relied on salary-backed loans	Project funding knowledge Cost of capital	Advance mobilization of funding Low interest payments Manageable		

Source: Author’s compilation based on survey data

5.3.4 The main challenges faced when sourcing funding

The results of analysis of the challenges as experienced by agricultural SMME owners were discussed below stage-by stage. To obtain the profile of main challenges, frequency analysis is performed. For each stage, the challenge that is mostly cited by agricultural SMME owners is regarded as a main challenge. A rank-order is produced for each stage in terms of the challenges and this reveals the main and the least challenge considered by the business owners. The higher the frequency for a challenge is cited, the more prominent it is as a factor influencing decision in the selection of financing sources for a particular stage. The main challenges cited were

compared with the pattern of key challenges observed in literature to check for similarity and differences in challenges faced.

After a collating process, the main challenges encountered overall were identified. These were lack of collateral, inadequate own capital, high cost of external capital, limited funding options, lack of trading history, lack of trust by funders, lack of secure off-takers and delayed approval of funding. The challenges arise from financiers' considerations of firm and owner characteristics as well as market related conditions. The firm characteristics were lack of collateral and lack of trading history while owner characteristics were inadequate own capital and lack of trust by funders. Challenges arising from the market were high cost of external capital, limited funding options, lack of secure off-takers and delayed approval of funding. These, in some cases, severely limit the business owners' chance of securing external funding.

The lack of collateral security is widely acknowledged in SMME finance literature as a major impediment as financiers almost always request that as evidence of capacity for loan repayment. Without such security pledge, SMMEs struggle to access market based-finance. Inadequacy of own capital is a major challenge when businesses were required to show a greater own equity contribution as an indication of strong commitment to the business. Greater equity contribution gives funders comfort as compared to where the owner is thinly invested.

High cost of external capital usually reflected in terms of high interest on debt capital is yet another well-known impediment to sourcing external funding for SMMEs. In economies with distressed financial markets, cost of external borrowing is usually high, posing a major financing constraint for SMMEs. Existence of limited funding options for SMMEs is another challenge that is associated with limited financial markets and this also tends to negatively affect SMMEs more than larger and more established entities.

A worse form of this constraint or challenge is when financiers especially banks and micro-finance institutions do not offer funding for business at inception and start-up stages. A lack of trading history and untested business model contribute to lack of trust by potential funders. Delays in approval of funding due to bureaucracy is another problem that arise from lengthy credit screening processes by both public and private financing institutions. Lastly, the lack of secure markets that are underpinned by off-

take agreements adds to the negative perceptions by potential funders and hence make it more challenging to secure funding.

Table 5.6 shows the main challenges that emerged during the business conceptualisation stage.

Table 5.6: Main challenges faced sourcing inception stage funding

Main challenges faced during inception	Frequency	Per cent	Cumulative	
			Frequency	Per cent
Lack of collateral security	15	4,7	15	4,69
Inadequate own capital	85	26,6	100	31,25
High cost of external capital	8	2,5	108	33,75
Limited funding options	27	8,4	135	42,19
Lack of trading history	8	2,5	143	44,69
Limited funding for start-ups	61	19,1	204	63,75
Lack of trust by funders	103	32,2	307	95,94
Lack of secure off-takers	3	0,9	310	96,88
Delayed approval of funding	10	3,1	320	100

Source: Author's compilation based on survey data

These were lack of trust by potential funders (32 percent), inadequate own capital (27 percent), limited funding for start-ups (19 percent) and to an extent limited financing options (8 percent). The prominence of these main challenges during the first stage shows the general mistrust funders have regarding new and untried business models.

This is compounded by the inadequacy of owner's equity as a convincing sign of internal business support from owners. When faced with the start-up stage, agricultural SMME owners mainly encounter inadequacy own capital (38 percent), high cost of external borrowing (18 percent), lack of trust by potential funders (12 percent) and lack of collateral security (8 percent) as the four main challenges (Table 5.7). It is important to note that while some of the challenges may persist throughout the stages, their prominence increases or decreases depending on the stage in the business life-cycle.

Table 5.7: Main challenges faced when sourcing funding during start-up stage

Main Start-up stage challenges faced	Frequency	Per cent	Cumulative	Cumulative
			Frequency	Per cent
Lack of collateral security	27	8,46	27	8,46
Inadequate own capital	122	38,1	149	46,56
High cost of external capital	57	17,8	206	64,38
Lack of trust by funders	38	11,9	294	91,88
Limited funding options	26	10	232	72,5
Lack of trading history	18	5,6	250	78,13
Lack of secure off takers	8	2,5	302	94,38
Delayed approval of funding	18	5,6	320	100

Source: Author's compilation based on survey data

For instance, for the start-up stage, the prominence of inadequacy of own capital increases and coupled with lack of collateral security, this makes sourcing funding for this key stage where the owner is establishing the business. Table 5.8 shows the predominantly cited challenges for the growth stage.

Table 5.8: Main challenges faced when sourcing funding during Growth stage

Main financing challenges faced during Growth stage	Frequency	Per cent	Cumulative	Cumulative
			Frequency	Per cent
Lack of collateral security	58	18,1	58	18,13
Inadequate own capital	60	18,8	118	36,88
High cost of external capital	52	16,3	170	53,13
Limited funding options	37	32,5	207	64,69
Lack of trading history	5	1,6	212	66,25
Lack of trust by funders	26	8,1	305	95,31
Lack of secure off-takers	15	4,7	320	100

Source: Author's compilation based on survey data

These were lack of financing options (32.5 percent), inadequate own capital (18.8 percent), lack of collateral security (18 percent) and high cost of external borrowing (16.3 percent). Such a combination of challenges is not ideal for businesses seeking to launch themselves on a growth trajectory. An ideal scenario is when the businesses have greater access to a variety of funding options which can help to propel their growth. The options further give them the latitude to select cheaper and appropriately structured finance well suited to the needs of the business at that stage. The lack of funding options exposed business owners to expensive and ill-suited financing instruments from available sources.

Unlike in previous stages, this particular challenge assumes a prominent position at this stage. This is because the growth stage demands more financial resources for acquisition of inputs and infrastructure necessary for higher levels of production. Coupled with the high cost of external borrowing from the available sources, this further reduces the prospects of securing adequate and appropriate funding.

With respect to sourcing funding for expanding their businesses, as during the growth stage, a lack of funding options persists as a leading challenge with about 33 percent of business owners citing it. This is followed by inadequacy of own capital (18.8 percent), lack of collateral security (18.1 percent) and the high cost of external borrowing (16.3 percent) as displayed in Table 5.9.

Table 5.9: Main challenges faced when sourcing funding during expansion stage

Main financing challenges faced during Expansion stage	Frequency	Per cent	Cumulative	
			Frequency	Per cent
Lack of collateral security	32	10,0	32	10
Inadequate own capital	59	18,4	91	28,44
High cost of external capital	57	17,8	148	46,25
Limited funding options	56	32,8	204	63,75
Lack of trading history	4	1,3	208	65
Lack of trust by funders	52	16,3	309	96,56
Lack of secure off takers	11	3,4	320	100

Source: Author's compilation based on survey data

Given the inadequacy of own capital featuring prominently throughout the stages, the solution is to search for more and cheaper funding from external sources. However, interest rates were reported to be high by several owners (16 percent). In this case, two main challenges complicate the funding of expansion projects for these business owners. Collateral required to secure external loans and other market-based financing facilities further complicates the process of sourcing funding.

The maturity stage is often regarded as the stage at which businesses experience the least challenges. However, some challenges can still be encountered with the potential to destroy business survival and development prospects. Results of analysis of challenges cited at this stage are displayed in Table 5.10.

Table 5.10: Main challenges faced when sourcing funding during maturity stage

Main financing challenges faced during maturity stage	Frequency	Percent	Cumulative Frequency	Cumulative per cent
Lack of collateral security	25	7,9	25	7,86
Inadequate own capital	47	14,8	72	22,64
High cost of external capital	27	8,5	99	31,13
Limited funding options	40	33.4	139	43,71
Lack of trading history	2	0,6	141	44,34
Lack of secure off takers	111	34.9	308	96,86

Source: Author's compilation based on survey data

The results indicate that the lack of secure markets underpinned by concrete off-take agreements emerges as the leading challenge cited by about 35 percent of the business owners. This is a result of a tough marketing environment which makes it difficult to tie down long term customers. Potential financiers take a dim view of agricultural SMMEs without secure markets as that increases the risk of defaulting on repayments for loans obtained. A lack of funding options persists, cited by 33.4 percent of business owners.



In addition, limited own capital (14.8 percent) still features despite literature observations that internal funds were greatest at this stage. However, this challenge shows a marked reduction in prominence from start-up to maturity stage. The other main challenges were high cost of borrowing (17.8 percent) and lack of trust by funders (16.3 percent). While cost of external borrowing should not be a major worry for businesses at this stage as most tend to rely on retained profits and other internally generated financing resources, it is however cited as important by many owners in this case. The lack of trust by funders highlighted relates to the future prospects of the businesses beyond maturity. This occurs when businesses cannot show capacity to offer new products, markets become saturated and competition rises to the extent that future prospects were uncertain. Table 5.11 shows the results for the main challenges faced during the decline phase.

Table 5.11: Main challenges faced when sourcing funding during decline stage

Main financing challenges faced during decline stage	Frequency	per cent	Cumulative	Cumulative
			Frequency	per cent
Lack of collateral security	10	3,2	10	3,17
Inadequate own capital	53	16,8	63	20
High cost of external capital	24	7,6	87	27,62
Limited funding options	41	36,5	128	40,63
Lack of trading history	2	0,6	130	41,27
Lack of trust by funders	92	29,2	296	93,97
Lack of secure off-takers	19	6,0	315	100

Source: Author's compilation based on survey data

The lack of funding options assumes an even more prominent position with 37 percent of business owners worried about this challenge. This is followed by lack of trust by funders (29 percent) as business decline makes it difficult for financiers to believe in the prospects for survival. Inadequate own capital (16.8 percent) and high cost of external borrowing (7.6 percent) complete the set of the four major challenges cited for the decline stage. The other challenges cited were lack of secure markets (6 percent), collateral security (3.2 percent) and lack of trading history (0.6 percent).

The challenges encountered when sourcing finance play an influential role in determining the funding ultimately sought and secured. However, the challenges may or may not have an effect depending on their gravity. They also tend to have different weighting or prominence at different stages in the life-cycle. As a result, they were analysed in relation to the specific life-cycle stage for which funding was sought.

In order to cross-check the challenges faced at each stage, managers and portfolio executives in some agricultural SMME financing institutions were asked to indicate the main challenges they faced when providing finance. While they gave the challenges from a supply-side perspective, it was important to establish any commonality in the challenges faced. The involvement of financing executives was meant to elicit more expert and balanced assessments of the challenges regarding sourcing and provision of stage-specific finance for agricultural SMMEs.

Results show that most of the market-based financing institutions do not provide funding for greenfield projects. They highlighted that they do not provide finance for inception and start up stages. The reasons for this position were that loans offered were based on depositors' funds and these have to be prudently invested where there is proven guarantee for full recovery with an interest earning. Thus the lack of trading

history and untested business models of businesses at inception and start-up stages lead financiers to treat the SMMEs as high-risk investments to be avoided. Comparing these results with the challenges faced by financiers in availing funds for specific stages reveals the extent of business owners' knowledge of the key considerations by external funders.

5.3.5 The effect of the key challenges on selection of funding

Agricultural SMME owners were asked if the main challenges they cite have an influence on the financing sources they ultimately used. Figure 5.4 display the results of analysis of the responses.

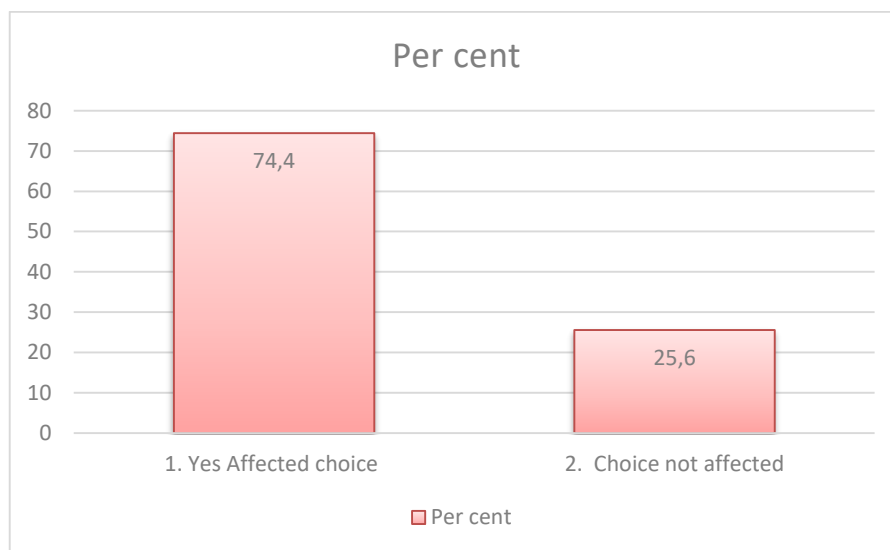


Figure 5.4: SMME owners' assessment of impact of challenges faced
Source: Author's calculations based on survey data

The results show that about 74 percent were influenced in their selection of financing sources while 26 percent were not affected (Figure 5.4). However, the latter group is mostly reliant on own sources of finance, hence the limited effects of the challenges cited above. The business owners were further requested to explain their assessments of impact of challenges faced when sourcing finance.

The responses were then subjected to thematic analysis in order to shift the emerging themes regarding the effects of challenges faced. Those who indicated that they were affected pointed out how they were affected. Most of the business owners were negatively affected as they ended up with limited suitable financing options. This

resulted from the high cost of available options which included high collateral demands, delays in disbursements of funds from both private funders and government contract farming facilities, difficulties in raising own funding due to limited savings and the shortage of long-term finance. Most of the owners had to rely on own funding or being contracted under command agriculture as the main funding options available.

Some of the owners had limited funding due to withdrawal of donor funders and had to engage advisory services. One business owner who was affected indicated that *“yes, [I] needed more flexible financing arrangements at low cost hence [ended up] relying on own sources mainly” (Respondent 273).*

Another one also highlighted the major challenges in saying that *“yes, bank finance is expensive in terms of high interest cost and collateral required” (Respondent 256).*

The small group essentially of micro-business owners who indicated that they were not affected mainly pointed out that their businesses were still small to qualify for sizable financial assistance from lending institutions. They therefore had not searched for external funding. Others indicated that their own funding was enough to cater for their business needs. One of the respondents stated that *“no challenges [were] faced since I started small and used the profits to expand my project” (Respondent 101).* Another revealed that *“No, since the interest rate charged was not too high so my business managed to survive (secure funding)” (Respondent 235).* Therefore, those who were not affected had adequate own funding or were still operating at small- scale, hence not really exposed to the challenges of sourcing external funding.

The significance of the challenges faced is that they, in most cases, restrict access to funding and determine whether certain types of finance may be used. Even when business owners were aware of the availability of suitable type of funding, challenges such as high cost of borrowing and lack of adequate collateral security curtailed use of external borrowing. Some of the challenges cited by business owners were also confirmed by financiers as they indicated the problems they faced when financing agricultural SMMEs.

5.3.6 The challenges faced by financiers in supporting agricultural SMMEs.

At inception stage, banks and micro-financiers indicated that they do not provide funding as they prefer to support businesses with a credit and trading history, with

well-tested feasibility and viability. At the start-up stage, the mismatch between the loan tenor and the projected income stream of businesses was highlighted. This arises from unrealistic projections that over-optimistic business owners make. The lack of adequate collateral security was the major challenge cited for growth and expansion stages coupled with high project assessment costs for widely dispersed small businesses. The lack of viability was the predominantly cited problem at maturity owing to stiff- competition. Financiers find it difficult to finance declining businesses due to the small owner's equity. Owner's equity is a major indication of how an entrepreneur is invested in a business project.

5.3.7 Owner characteristics considered by financiers when availing funding

The financing executives indicated that there are key owner-manager characteristics that financing institutions consider before funding a small business. The common considerations they cited are the financial position of the owner, knowledge of the business, the age of the borrower, the key-man insurance, and the level of experience in managing the type of business and the character of the business owner. The financiers pointed out that due to limited knowledge of the business and the specific challenges at each stage, most of the business owners seeking funding were unable to clearly specify the funding requirements for their business at specific stages.

5.3.8 The effects of challenges faced on provision of funding

The agricultural SMME financiers were asked to explain how the challenges faced affected provision of adequate and suitable funding for their clients. From their explanations, some key themes emerged and some of the views expressed are quoted below. The responses were classified in terms of impact on their SMME financing portfolios, Life-cycle stage financing, client assessment and credit policy, the mitigating measures adopted and the effects on their mandate.

With respect to effects on their financing portfolio, two of the financiers highlighted that the challenges faced had negative effects on their efforts to grow their agricultural SMME financing portfolio. One of the financing executive responded saying:

“Yes, our portfolio has not grown much due to the above challenges since most projects fail to qualify for our funding” (FE 1).

This concern was echoed by another financing executive who explained that:

“Yes, many prospective clients have not been able to meet our qualification criteria. We are very selective given that we need to fulfil the mandate for the bank” (FE 10).

As a result of the challenges faced by agricultural SMME financing institutions, most of the financiers have had to enhance their prospective client assessment criteria in order to be stricter on the qualification criteria. For instance, one financing executive revealed that in saying;

“Yes, our loan officers, working with agronomists, help us to assess and select the projects and specific stages we can fund” (FE 2).

This was further supported by another financing executive who indicated that:

“Yes, we now have to look closely at the business model to assess the viability of the project and capacity to repay for example, whether there is guaranteed and adequate sources for loan repayment like pension, salary and property” (FE 5).

Still another one pointed out that:

“Yes, since we do not offer one-size fits all financing, we need to engage the project owners and get a clear breakdown of their specific needs. We assess these against our qualification criteria” (FE 7).

The financiers also pointed out the impact of the challenges faced on their mandate of financing the development of the agricultural SMME subsector. The financiers by and large acknowledged the impact of the challenges faced but expressed their commitment to their mandate. In expressing this, one of the executives said:

“They have but the bank is committed to supporting the SMMEs given its historical role in funding agriculture” (FE 9).

This sentiment was also reiterated by another executive who expressed how their institution is sticking to the mandate by saying:

“Not in the negative sense, since our mandate is developmental, we identify needy communities and train the members in the areas that address the key challenges in business management identified” (FE 11).

The challenges faced by financiers when providing agricultural SMME financing also affect the provision of stage financing. As a result of the challenges, financiers are more circumspect about providing funding at certain stages of the business life-cycle.

The three stages suffering the greatest negative impact of the cautious funding approach are inception, setting-up and ensuring survival and decline. An executive in one of the financing institutions explained that:

“Yes, we do not fund greenfield projects. Also, the lack of collateral security and proper project knowledge restricts us in terms of the stages and projects we finance” (FE 8).

Another executive added that:

“Yes, hence the fact that we do not finance inception stage or greenfield projects. Also, we do not finance projects unless there are assured markets with clear off-take agreements” (FE 12).

The discussion above shows the results relating to the first objective of the study. The results show agricultural SMME owners' level of awareness of funding options available, the funding sources mostly used, assessment of affordability of funding, the challenges encountered by owners when sourcing funding and effects on choice and application of such funding, the effects of challenges on the provision of funding by financiers as well as their effects. The following section turns to the results of the assessment of the business owners' use of funding sources and instruments at each of the stages in the life-cycle.



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5.4 The funding used along the business life-cycle

This section presents the results of analysis of the main financing sources and instruments used by owners at the different stages of the business life-cycle. It also discusses how the use of funding was influenced by selected business and owner characteristics. The results relate to the second objective of the study. The study took a partial analysis approach.

5.4.1 The types of stage funding used and determining factors

Funding use was defined as a binary variable which can only be either internal or external. External funding included funding from banks, donors, contracts and government while internal funding include own income and interest-free loans and

donations from close family. Choice and use of funding depend on business specific factors and a variety of other factors.

One of the central objectives of this study was to determine such factors for each business stage. With the response variable (funding used) being binary, the binary logistic regression analysis was used for estimating the pattern of the relationship funding used has with some business specific characteristics and experiences with funding. The results of the analysis presented in tables below show the regression parameter estimates, standard errors, chi-squared statistics, p-values, odds ratios and 95% confidence intervals. Only the variables with significant influence on the use of funding were interpreted for each of the business stages. The model fit was assessed using the likelihood ratio chi-squared test for model significance and the c-criterion for model prediction ability.

(a) The use of funding at the inception stage

Table 5.12 below shows the results of the logistic regression of business characteristics on the use of funding at inception stage.

Table 5.12: Estimated logistic regression model for inception funding source

Parameter	β	se(β)	Chisq	p-value	OR	95%CI	
						LCL	UCL
Intercept	1.5	0.388	14.4	0.001			
Business type (AA)							
<i>Crop vs Other</i>	-0.8*	0.228	11.2	0.001	0.2	0.09	0.53
Business age (AG)							
<i>< 1 yr vs >3 yrs</i>	-0.3	0.349	0.5	0.465	0.5	0.14	1.83
<i>2-3yrs vs >3 yrs</i>	-0.2	0.297	0.4	0.525	0.5	0.17	1.67
Ownership structure (OS)							
<i>Sole vs Partnership</i>	0.1	0.237	0.3	0.572	1.3	0.52	3.32
Annual turnover (AT)							
<i><R100 000 vs >R100 000</i>	-0.5	0.261	3.4	0.064	0.4	0.14	1.06
Asset value (VA)							
<i><R50 000 vs >R50 000</i>	0.1	0.361	0.0	0.882	1.1	0.27	4.59
Number of employees (NE)							
<i>< 5 vs >5 employees</i>	0.0	0.320	0.0	0.909	1.1	0.31	3.77
Business location (LO)							
<i>Urban vs Rural</i>	0.4	0.247	2.6	0.110	2.2	0.84	5.78
Funding knowledge (FK)							
<i>Low vs High</i>	-0.7*	0.308	5.7	0.017	0.2	0.05	0.69
<i>Moderate vs High</i>	-0.2	0.304	0.5	0.464	0.3	0.08	1.13
Funding Advice (FAD)							
<i>Self</i>	1.0*	0.209	21.5	<0.001	7.0	3.06	15.80

Stage specificity of funding (FS)							
Yes	0.4*	0.209	4.4	0.036	2.4	1.06	5.47
Problem identification (PI)							
Difficult	0.0	0.217	0.0	0.880	0.9	0.40	2.19
Funding benefit (FB)							
Small extent	-0.7*	0.337	4.2	0.042	0.8	0.25	2.54
Medium extent	1.1*	0.322	12.5	0.001	4.9	1.60	14.93
Funding adequacy (FADQ)							
Adequate	-0.2	0.327	0.5	0.474	0.6	0.17	2.26

*Statistically significant at 5 percent level

Source: Author's calculations based on survey data

The resultant fitted regression equation at inception stage is:

$\text{Log}_{it}(\text{Pi}) = \log_{it} [P_i / 1 - P_i]$:

$$= 1.5 - 0.8\text{AA} - 0.3\text{AG} + 0.1\text{OS} - 0.5\text{TA} + 0.1\text{VA} + 0.4\text{LO} - 0.7\text{FK} + 1.0\text{FAD} + 0.4\text{FS} - 0.7\text{FB} - 0.2\text{FADQ} \dots \dots \dots (\text{Equation 5.1})$$

The beta coefficients show the strength and direction of the relationship between use of funding and each predictor variable. At inception stage however, the binary logistic regression of stage funding source on the predictors identified business type, knowledge of funding sources, use of funding advice, stage specificity of funding and funding benefit as significant predictors of funding source choice at inception stage. The odds ratios and the 95% confidence intervals and p-values for the prediction and significance are indicated in brackets in the explanations of the use of funding type and the various determining factors. The c-criterion value is also given to show the predictive ability of the model at each stage.

With respect to business type or agricultural activity, owners who were into crop production were less likely ($\beta = -0.8$) to use internal funding sources compared to other business types (OR=0.2; 95% CI (0.09;0.53)). The level of knowledge of funding options available was another statistically significant factor. Results show that owners with low level of knowledge were less likely ($\beta = -0.7$) to use internal sources compared to those with higher knowledge (OR=0.2; 95% CI (0.05; 0.69)).

This likely greater use of external funding by owners with limited knowledge appears contradicting what is commonly known. Yet, in Zimbabwe, the targeted nature of external funding by donors and government entrepreneurship development funding

schemes pushes some people into business even when they have own resources. This explains why such business people are more likely to be dependent on external funding. Without such funding, they have no capacity and resources to set up their own businesses.

Those with moderate level of knowledge were more likely to choose internal funding just like those with high level of knowledge of funding (OR=0.3; 95% CI (0.08; 1.13)). This result reflected a negative attitude to external borrowing. More knowledgeable business owners preferred internal to external funding possibly due to high cost of borrowing in an unstable macro-economic and specifically financial market environment. Thus, the level of knowledge that business owners had was an important determinant of the use of a particular type of inception funding. This included the knowledge of possible sources, the structure of the instruments, cost and tenor.

The use of external advice regarding the most ideal way to fund a business played a crucial role in assisting the selection and use of funding. The model results show that those who individually, without external advice or recommendations, funded their businesses were more likely ($\beta=1.0$) to use internal sources than those who seek external advice and/or recommendation (OR=7.0; 95%CI (3.06; 15.80)).

Funding specificity is the suitability of the types of funding used depending specifically on the stage at which the business is. As a result, the choice and use of funding should take into account the specific life-cycle stage at which the business is operating. Results indicate that those who agreed that funding should be stage specific were more likely ($\beta=0.4$) to use internal funding sources at inception stage compared to those who did not consider appropriateness of funding to be stage specific (OR=2.4;95%CI (1.06;5.47)).

With respect to funding benefit, the extent to which a business benefits from using a particular type of funding is instrumental to the decision for using that type of funding. From the analysis of the relationship of funding benefit and use, businesses for whom the funding solved few of their business problems were less likely ($\beta=-0.7$) to use internal sources compared to those for whom the funding solved most of their business problems (OR=0.8;95%CI (0.25;2.54)).

While the p-value for comparing these two groups is 0.042 (that is <0.05), the 95% confidence interval of the corresponding odds ratio shows that the funding choices for

these two groups business owners are however not significantly different. On the other hand, those for whom funding used moderately solved their business problems were more likely to use internal sources than those who solved most of their problems through funding (OR=4.9; 95%CI (1.60; 14.93)). Overall, based on the likelihood ratio chi-squared test, the model was statistically significant (LR=102.7; P<0.001) and the c-value was 0.879 which is indicative of high association between predicted probabilities and observed probabilities.

(a) Setting up and survival stage funding

Several factors influenced the use of funding types at inception stage. Table 5.13 below shows the results of the binary logistic regression of stage funding choice on business characteristics and experiences with funding at the setting-up stage.

Table 5.13: Estimated logistic regression of survival funding source

Parameter	(β)	se(β)	Chisq	p-value	OR	95%CI	
						LCL	UCL
Intercept	-0.07	0.297	0.06	0.809			
Business type (AA)							
<i>Crop vs. Other</i>	-0.72*	0.176	16.67	0.001	0.2	0.12	0.47
Business age (AG)							
<i>< 1 yr. vs. >3 yrs.</i>	0.36	0.261	1.90	0.168	1.5	0.59	3.88
<i>2-3yrs vs. >3 yrs.</i>	-0.31	0.204	2.29	0.130	0.8	0.36	1.66
Ownership structure (OS)							
<i>Sole vs. Partnership</i>	-0.05	0.160	0.11	0.741	0.9	0.48	1.68
Annual turnover (AT)							
<i><R100 000 vs. >R100 000</i>	-0.02	0.167	0.01	0.928	1.0	0.51	1.86
Asset value (VA)							
<i><R50 000 vs. >R50 000</i>	0.46	0.236	3.72	0.054	2.5	0.99	6.27
Number of employees (NE)							
<i>< 5 vs. >5 employees</i>	0.04	0.219	0.04	0.848	1.1	0.46	2.57
Business location (LO)							
<i>Urban vs. Rural</i>	0.70*	0.163	18.51	<0.001	4.1	2.14	7.66
Funding knowledge (FK)							
<i>Low vs. High</i>	0.44*	0.214	4.19	0.041	1.8	0.81	3.91
<i>Moderate vs. High</i>	-0.30	0.198	2.30	0.129	0.9	0.41	1.78
Funding advice (FAD)							
<i>Self</i>	0.69*	0.160	18.59	<0.001	4.0	2.12	7.45
Stage specificity of funding (FS)							

<i>Appropriate</i>	-0.19	0.163	1.41	0.235	0.7	0.36	1.29
Problem identification (PI)							
<i>Difficult</i>	-0.14	0.168	0.66	0.418	0.8	0.40	1.47
Funding benefit (FB)							
<i>Small extent</i>	0.10	0.249	0.15	0.694	2.0	0.79	4.95
<i>Medium extent</i>	0.49*	0.203	5.79	0.016	2.9	1.35	6.36
Funding adequacy (FADQ)							
<i>Adequate</i>	0.54	0.277	3.79	0.052	2.9	0.99	8.70

* Statistically significant at 5 percent level

Source: Author's calculations based on survey data

The fitted regression equation for setting up stage is as follows:

$$\text{Log}_{it}(P_i) = \log_{it} [P_i / 1 - P_i]:$$

$$= -0.07 - 0.72AA + 0.36AG - 0.05OS - 0.02TA + 0.46VA + 0.04NE + 0.7LO + 0.44FK + 0.69 FAD - 0.19 FS - 0.14PI + 0.49FB - 0.54 FADQ \dots \dots \dots \text{(Equation 5.2)}$$

From the analysis, business type, business location, funding advice and funding benefit were identified as significant predictors of choice and use of funding source at this stage. With respect to the type of business activity, results show that business owners who wherein crop producers were significantly less likely ($\beta = -0.72$) to use internal funding sources (OR=0.2; 95% CI (0.2; 0.47)) compared to business owners involved in other agricultural activities.

In the case of business location, urban and peri-urban business owners were all significantly more likely ($\beta = 0.7$) to use internal funding at survival stage (OR=4.1; 95% CI (2.14; 7.66)) compared to more rural based business owners. With respect to knowledge of funding, the p-value for its significance on funding use is 0.041, which is lower than the significance level (5%). However, on inspecting the 95% confidence interval of the corresponding odds ratio, it can be seen that at this stage, knowledge of funding sources does not really have a significant association with choice and use (OR=1.8; 95% CI (0.81; 3.91)).

Funding advice was however a significant predictor in that business owners who did not get external advice about funding setting up and business survival were more likely ($\beta = 0.69$) to use internal funding sources (OR=4.0; 95% CI (2.12; 7.45)) compared to those who did. In addition, those who found funding used to be beneficial to some extent were significantly more likely ($\beta = 0.49$) to use internal funding (OR=2.9; 95% CI

(1.35; 6.36)) compared to those who found the funding used to be not beneficial. Based on the likelihood ratio chi-squared test, the model was statistically significant at 5 % level (LR=115.5; $p < 0.001$) and the c-criterion value is 0.832, which is indicative of high association between predicted probabilities and observed probabilities.

(b) Growth stage funding

The table below shows the results of the binary logistic regression of growth stage funding use on business characteristics and experiences with funding (Table 5.14).

Table 5.14: Estimated logistic regression of growth stage funding source

Parameter	β	se(β)	Chisq	p-value	OR	95%CI	
						LCL	UCL
Intercept	-0.65	0.285	5.1	0.023			
Business type (AA)							
<i>Crop vs Other</i>	-0.43*	0.175	5.9	0.015	0.4	0.22	0.85
Business age (AG)							
<i>< 1 yr vs >3 yrs</i>	-0.54*	0.233	5.4	0.020	0.6	0.28	1.50
<i>2-3yrs vs >3 yrs</i>	0.64*	0.185	12.0	0.001	2.1	1.05	4.22
Ownership structure (OS)							
<i>Sole vs Partnership</i>	-0.10	0.151	0.5	0.491	0.8	0.45	1.47
Annual turnover (AT)							
<i><R100 000 vs >R100 000</i>	0.12	0.152	0.7	0.412	1.3	0.71	2.33
Asset value (VA)							
<i><R50 000 vs >R50 000</i>	0.22	0.217	1.0	0.317	1.5	0.66	3.61
Number of employees (NE)							
<i>< 5 vs >5 employees</i>	0.05	0.208	0.1	0.817	1.1	0.49	2.48
Business location (LO)							
<i>Urban vs Rural</i>	-0.13	0.147	0.8	0.363	0.8	0.43	1.36
Funding knowledge (FK)							
<i>Low vs High</i>	0.58*	0.193	9.0	0.003	2.5	1.20	5.19
<i>Moderate vs High</i>	-0.25	0.192	1.6	0.199	1.1	0.53	2.26
Funding advice (FAD)							
<i>Self</i>	0.43*	0.161	7.0	0.008	2.3	1.25	4.40
Stage specificity of funding (FS)							
<i>Appropriate</i>	0.23	0.151	2.2	0.134	1.6	0.87	2.83
Problem identification (PI)							
<i>Difficult</i>	-0.06	0.156	0.1	0.708	0.9	0.48	1.64
Funding benefit (FB)							
<i>Small extent</i>	-0.04	0.233	0.0	0.864	0.6	0.24	1.27
<i>Moderately</i>	-0.52*	0.185	7.8	0.005	0.3	0.17	0.68
Funding adequacy (FADQ)							

Adequate	0.44	0.239	3.5	0.063	2.4	0.95	6.21
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*Statistically significant at 5 percent level

Source: Author's calculations based on survey data

At this stage, the overall regression model is:

$$\text{Log}_{it}(P_i) = \log_{it} [P_i / 1 - P_i]:$$

$$= -0.65 - 0.43AA - 0.54AG - 0.10S + 0.12TA + 0.22VA + 0.05NE - 0.13LO + 0.58 FK + 0.43 FAD + 0.23FS - 0.06PI - 0.52FB + 0.44 FADQ \dots \dots \dots \text{(Equation 5.3)}$$

The business type, business age, and knowledge of funding options, funding advice and benefit were identified as significant predictors of funding use.

The regression results show that crop producers were significantly less likely ($\beta = -0.43$) to use internal funding sources compared to owners involved in the other types of business activities (OR=0.4; 95% CI (0.22; 0.85)). Unlike at the setting and survival stage, business age was an important factor at this stage. Owners of businesses that were younger than three years were less likely ($\beta = -0.54$) to use internal funding sources compared to those older than three years (OR=2.1; 95% CI (1.05; 4.22)). Comparing businesses up to 1 year and those over three years, while the p-value suggests that those up to 1 year old are significantly different from those over three years in terms of choice of funding for growth stage, the 95% confidence interval for the corresponding odds ratio suggests otherwise (OR=0.6; 95% CI (0.28; 1.50)).

With respect to knowledge funding options, those with low levels of knowledge of funding options were more likely ($\beta = 0.58$) to use internal sources compared to those who have greater knowledge (OR=2.5; 95% CI (1.20; 5.19)). However, funding advice played a more influential role at the growth stage. Those who did not get advice about funding were significantly more likely ($\beta = 0.43$) to use internal funding sources compared to those who did (OR=2.3; 95% CI (1.25; 4.40)). They took sole responsibility for making the decision on which type of funding to use to finance business growth.

The use of advisory services at the growth stage therefore exposed some business owners to a variety of external funding sources. Funding benefit was also statistically significant at the growth stage. Those for whom funding moderately solved their

business problems were significantly less likely ($\beta=-0.52$) to use internal funding sources (OR=0.3; 95%CI (0.17; 0.68)) than those who solved most of their problems.

Based on the likelihood ratio chi-squared test, the model was statistically significant (LR=85.8; $p<0.001$) and the c-value was 0.783, which is indicative of high association between predicted probabilities and observed probabilities.

(c) Expansion stage funding

The use of stage funding at the expansion stage was tested for association with a number of predictor variables. Table 5.15 below summarises the binary logistic regression results of the association with the significant predictor variables.

Table 5.15: Estimated logistic regression of expansion stage funding source

Parameter	β	se(β)	Chis	p-value	OR	95%CI	
						LCL	UCL
Intercept	-0.06	0.277	0.05	0.826			
Business type (AA)							
<i>Crop vs Other</i>	-0.40*	0.171	5.4	0.020	0.5	0.23	0.88
Business age (AG)							
<i>< 1 yr. vs >3 yrs.</i>	-0.07	0.225	0.11	0.742	1.2	0.54	2.81
<i>2-3yrs vs >3 yrs.</i>	0.35	0.180	3.85	0.050	1.9	0.95	3.75
Ownership structure (OS)							
<i>Sole vs Partnership</i>	-0.26	0.148	3.02	0.082	0.6	0.33	1.07
Annual turnover (AT)							
<i><R100 000 vs >R100 000</i>	0.12	0.151	0.64	0.424	1.3	0.70	2.30
Asset value (VA)							
<i><R50 000 vs >R50 000</i>	0.53*	0.216	6.10	0.014	2.9	1.25	6.80
Number of employees (NE)							
<i>< 5 vs >5 employees</i>	-0.29	0.205	2.01	0.156	0.6	0.25	1.25
Business location (LO)							
<i>Urban vs Rural</i>	-0.16	0.147	1.21	0.271	0.7	0.41	1.29
Funding knowledge (FK)							
<i>Low vs High</i>	0.52*	0.187	7.64	0.006	2.2	1.07	4.44
<i>Moderate vs High</i>	-0.25	0.188	1.80	0.180	1.0	0.50	2.07
Funding advice (FAD)							
<i>Self</i>	0.30*	0.153	3.96	0.047	1.8	1.01	3.34
Stage specificity of funding (FS)							
<i>Appropriate</i>	0.09	0.144	0.37	0.543	1.2	0.68	2.09
Problem identification (PI)							
<i>Difficult</i>	0.21	0.152	1.96	0.162	1.5	0.84	2.78

Funding benefit (FB)							
<i>Small extent</i>	0.12	0.232	0.27	0.604	1.0	0.45	2.35
<i>Medium extent</i>	-0.21	0.179	1.44	0.230	0.7	0.38	1.42
Funding adequacy (FADQ)							
<i>Adequate</i>	0.69*	0.238	8.45	0.004	4.0	1.57	10.1

*Statistically significant at 5 percent level

Source: Author's calculations based on survey data

At this stage, the overall regression model is:

$$\text{Log}_{it}(P_i) = \log_{it} [P_i / 1 - P_i]:$$

$$= -0.06 - 0.4AA - 0.07AG - 0.26OS + 0.12TA + 0.53VA - 0.29NE - 0.16LO + 0.52 FK + 0.30 FAD + 0.09 FS + 0.21PI + 0.12FB + 0.69 FADQ \dots \dots \dots \text{ (Equation 5.4)}$$

The regression models used identified business type, asset value, knowledge of funding, funding advice and funding adequacy as the significant predictor variables for choice of funding for business expansion. At this stage, business owners in crop production were significantly less likely ($\beta = -0.4$) to use internal funding sources (OR=0.5; 95% CI (0.23; 0.88)) compared to other business owners. The value of assets held by the business was a significant factor for funding business expansion. Business owners whose businesses had assets less than US\$50 000 were significantly more likely ($\beta = -0.07$) to use internal funding sources compared to those owners with business assets in excess of US\$50 000 (OR=2.9; 95% CI (1.25; 6.80)).

In the case of knowledge of funding, those with low levels of knowledge were found to be significantly more likely ($\beta = 0.52$) to use internal funding sources compared to those with high levels of knowledge of funding business expansion (OR=2.2; 95% CI (1.07; 4.44)). There was no statistically significant difference between those with moderate and those with high level of knowledge in terms of their use of internal funding (OR=1.0; 95% CI (0.50; 2.07)).

Funding advice was also statistically significant in influencing the use of funding for business expansion. The results indicate that exposure to funding advice was vital as those who did not receive funding advice and/or recommendation were significantly more likely ($\beta = 0.3$) to be confined to using internal sources (OR=1.8; 95% CI (1.01; 3.34)) compared to those who did. Funding advice broadened the range of options that a business used for expanding activities. Another factor that significantly

determined the choice of funding for expansion was the level of funding adequacy. The results show that those business owners who considered the funding type they used to be adequate were significantly more likely ($\beta=0.69$) to be those who used internal funding sources as compared to those who regarded funding to be inadequate (OR=4;95%CI (1.57;10.1)).

Based on the likelihood ratio chi-squared test, the model was statistically significant (LR=69.6; $p<0.001$) and the c-value was 0.756, which is reflective of high association between predicted probabilities and observed probabilities.

(d) Maturity Stage funding

The maturity stage is considered the most stable stage with respect to business operational needs and challenges. Table 5.16 below shows the results of the logistic regression of maturity stage funding choice on characteristics and experiences with funding.

Table 5.16: Estimated logistic regression of maturity stage funding source

Parameter	β	se(β)	Chisq	p-value	OR	95%CI	
						LCL	UCL
Intercept	0.94	0.324	8.48	0.004			
Business type (AA)							
<i>Crop vs Other</i>	-0.70*	0.171	16.53	0.001	0.2	0.13	0.49
Business age (AG)							
<i>< 1 yr. vs >3 yrs</i>	-0.45	0.258	2.99	0.084	0.5	0.18	1.24
<i>2-3yrs vs >3 yrs</i>	0.15	0.207	0.52	0.471	0.9	0.39	1.92
Ownership structure (OS)							
<i>Sole vs Partnership</i>	-0.29	0.168	2.94	0.086	0.6	0.29	1.09
Annual turnover (AT)							
<i><R100 000 vs >R100 000</i>	-0.20	0.176	1.28	0.257	0.7	0.34	1.34
Asset value (VA)							
<i><R50 000 vs >R50 000</i>	0.05	0.251	0.05	0.831	1.1	0.42	2.98
Number of employees (NE)							
<i>< 5 vs >5 employees</i>	0.02	0.245	0.01	0.927	1.0	0.40	2.73
Business location (LO)							
<i>Urban vs Rural</i>	0.03	0.165	0.04	0.839	1.1	0.56	2.04
Funding knowledge (FK)							
<i>Low vs High</i>	0.20	0.217	0.88	0.349	1.0	0.45	2.33
<i>Moderate vs High</i>	-0.38	0.211	3.24	0.072	0.6	0.26	1.28

Funding advice (FAD)							
<i>Self</i>	0.38*	0.162	5.43	0.020	2.1	1.13	4.02
Stage specificity of funding (FS)							
<i>Appropriate</i>	0.12	0.164	0.51	0.476	1.3	0.66	2.41
Problem identification (PI)							
<i>Difficult</i>	0.03	0.172	0.04	0.852	1.1	0.54	2.09
Funding benefit (FB)							
<i>Small extent</i>	-0.27	0.259	1.05	0.306	0.4	0.13	0.95
<i>Medium extent</i>	-0.52*	0.206	6.37	0.012	0.3	0.12	0.63
Funding adequacy (FADQ)							
<i>Adequate</i>	0.65*	0.300	4.71	0.030	3.7	1.13	11.93

*Statistically significant at 5 percent level

Source: Author's calculations based on survey data

The overall regression model is:

$\text{Log}_{it}(P_i) = \log_{it} [P_i / 1 - P_i]$:

=0.94 -0.7AA -0.45AG -0.29OS -0.2TA +0.05VA +0.02 NE +0.03LO+0.2 FK +0.38 FAD
+0.12FS+0.03PI-0.52FB +0.65 FADQ..... (Equation 5.5)

The binary logistic regression model identified business type, funding advice, funding benefit and funding adequacy as statistically significant predictors of funding use at this stage.

At this stage, crop producers were significantly less likely ($\beta=-0.7$) to use internal funding sources compared to owners engaged in any other activity (OR=0.2;95% CI (0.13;0.49)). Use of funding advice was another significant factor. Those that personally sourced the funding without the use of financial advisory services were more likely ($\beta=0.38$) to use internal funding than those whose choice was based on the advice of financial advisors (OR=2.1;95% CI (1.13;4.02)).

Funding benefit was also statistically significant predictor at this stage. The results show that those who moderately solved their business problems were significantly less likely ($\beta=-0.52$) to use internal funding sources compared to those who for whom funding solved most of their problems (OR=0.3; 95% CI (0.12; 0.63)). The same applies to those who solved few of their problems and those who solved most of their problems (O=0.4; 95% CI (0.13; 0.95)). The adequacy of funding played an important role in the use of funding. The results show that those who found stage funding to be adequate were significantly more likely ($\beta=0.65$) to use internal funding sources

compared to those who regarded funding to be inadequate (OR=3.7;95 CI (1.13;11.95)).

Based on the likelihood ratio chi-squared test, the model was statistically significant (LR=86.9; $p < 0.001$) and c-value was 0.786, which shows a high level of association between predicted probabilities and observed probabilities.

(e) Decline stage funding

The use of funding at the decline stage were analysed. The results of the regression analysis are displayed in Table 5.17 below.

Table 5.17: Estimated logistic regression of decline stage funding source

Parameter	β	Se(β)	Chisq	p-value	OR	95%CI	
						LCL	UCL
Intercept	0.30	0.284	1.13	0.289			
Business type (AA)							
<i>Crop vs Other</i>	-0.52*	0.168	9.60	0.002	0.4	0.18	0.68
Business age (AG)							
<i>< 1 yr vs >3 yrs</i>	0.37	0.250	2.19	0.139	2.1	0.85	5.03
<i>2-3yrs vs >3 yrs</i>	-0.01	0.191	0.01	0.942	1.4	0.70	2.84
Ownership structure (OS)							
<i>Sole vs Partnership</i>	-0.11	0.151	0.54	0.461	0.8	0.44	1.45
Annual turnover (AT)							
<i><R100 000 vs >R100 000</i>	-0.06	0.154	0.14	0.706	0.9	0.49	1.63
Asset value (VA)							
<i><R50 000 vs >R50 000</i>	0.44*	0.224	3.94	0.047	2.4	1.01	5.84
Number of employees (NE)							
<i>< 5 vs >5 employees</i>	-0.40	0.219	3.28	0.070	0.5	0.19	1.07
Business location (LO)							
<i>Urban vs Rural</i>	-0.04	0.155	0.06	0.805	0.9	0.50	1.70
Funding knowledge (FK)							
<i>Low vs High</i>	0.18	0.199	0.80	0.373	1.3	0.62	2.67
<i>Moderate vs High</i>	-0.10	0.189	0.30	0.582	1.0	0.48	1.95
Funding advice (FAD)							
<i>Self</i>	0.50*	0.150	10.97	0.001	2.7	1.50	4.87
Stage specificity of funding (FS)							
<i>Yes</i>	0.32*	0.148	4.68	0.031	1.9	1.06	3.38
Problem identification (PI)							
<i>Difficult</i>	-0.23	0.157	2.22	0.136	0.6	0.34	1.16
Funding benefit (FB)							

<i>Small extent</i>	0.21	0.239	0.80	0.370	1.5	0.62	3.46
<i>Medium extent</i>	-0.04	0.186	0.06	0.814	1.1	0.57	2.27
Funding adequacy (FADQ)							
<i>Adequate</i>	0.61*	0.257	5.62	0.018	3.4	1.24	9.27

*Statistically significant at 5 percent level

Source: Author's calculations based on survey data

The overall regression model is:

$$\text{Log}_{it}(P_i) = \log_{it} [P_i / 1 - P_i]:$$

$$= 0.30 - 0.52AA + 0.37AG - 0.11OS - 0.06TA + 0.44VA - 0.4 NE - 0.04LO + 0.18FK + 0.5 FAD + 0.32FS - 0.23PI + 0.21FB + 0.61FADQ \dots \dots \dots \text{ (Equation 5.6)}$$

The binary logistic regression analysis identified business type, asset value, funding advice, stage specificity of funding and funding adequacy as significant predictors. With respect to type of business activity, crop producers were significantly less likely ($\beta = -0.52$) to use internal funding sources at the decline stage when compared to owners in other types of business activity (OR=0.4; 95% CI (0.18; 0.68)). The value of assets held also was a significant predictor of use of funding at this stage. Businesses with asset values less than US\$50 000 were significantly more likely ($\beta = 0.44$) to use internal funding sources compared to those with assets valued in excess of US\$50 000 (OR=2.4; 95% CI (1.01; 5.84)).

Use of funding advice was found to be statistically significant as those who personally sourced the funding were more likely ($\beta = 0.5$) to use internal sources than those whose funding selection and use was based on financier initiative (OR=2.7; 95% (1.50; 4.87)). An understanding of specificity of stage funding is important in the selection and use of the types of funding by business owners. This determines the type of funding which business owners consider as appropriate for use at a particular stage. Results show that owners who considered appropriateness of funding to be stage specific were significantly more likely ($\beta = 0.32$) to use internal funding sources compared to those who do not believe so (OR=1.9; 95% CI (1.06; 3.38)).

The adequacy of funding also significantly influenced the use of types of funding at the decline stage. The regression results show that those business owners who found stage funding to be adequate were significantly more likely ($\beta = 0.61$) to use internal sources compared to those who considered stage funding to be inadequate

(OR=3.4;95% CI (1.249.27)). Based on the likelihood ratio chi-squared test, the model was statistically significant (LR=53.7; p<0.001) and the c-value was 0.742, which is indicative of high association between predicted probabilities and observed probabilities.

5.4.2. Discussion of regression results

The life-cycle stage funding has a relationship with a number of factors. The relationship may be represented by the functional relationship:

$$SF=f(AO, OC, FC, SS, GP, Z) \dots \dots \dots \text{(Equation 5.7)}$$

Where AO=availability of funding options, OC=owner characteristics, FC=firm characteristics; SS=life-cycle stage specific problems and GP =Government policy, and Z=error term).

The results of the analysis above show the extent to which selected independent variables affect the use of agricultural SMME life-cycle funding. The variables and their influences are shown in the spider network diagram (Figure 5.5 below). The diagram shows the stage at which each factor had statistically significant influence based on the logistic regression results.

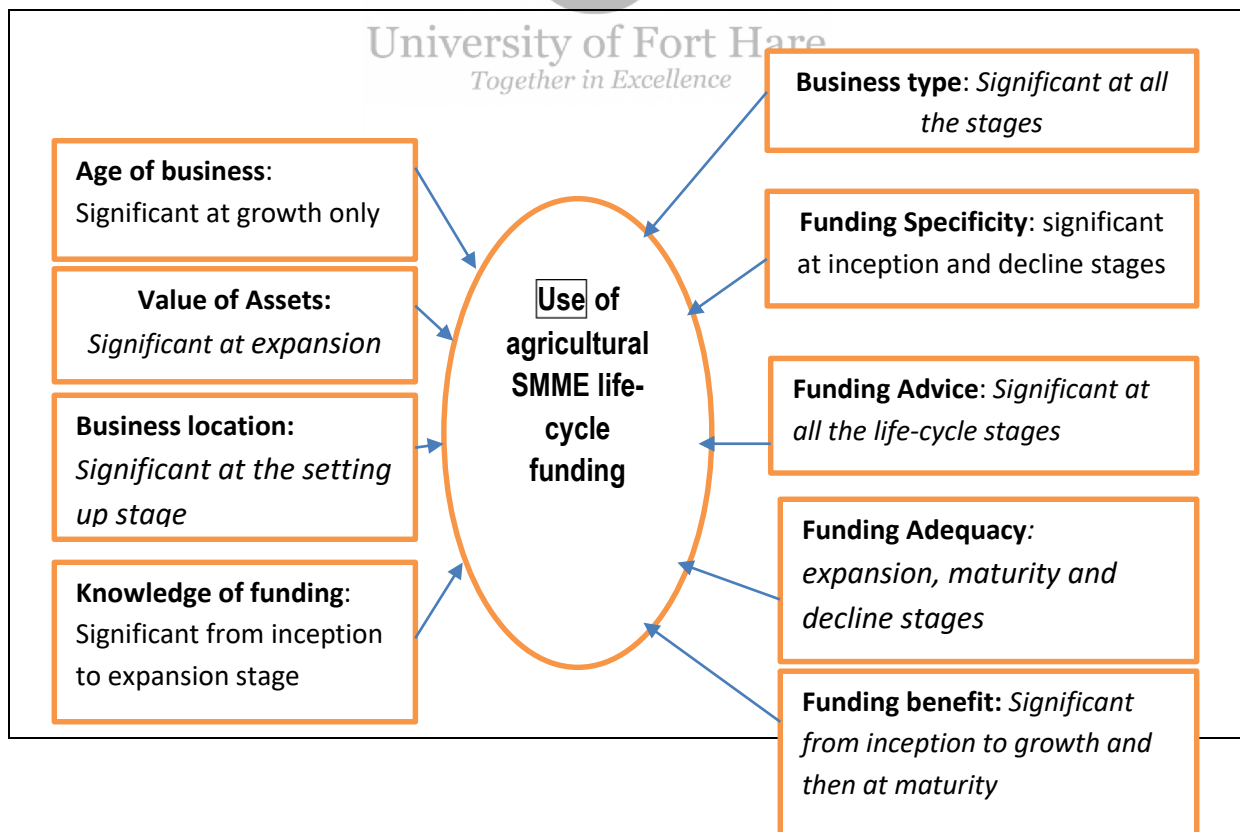


Figure 5.5: Spider network diagram: Selected factors influencing use of funding
Source: Author's own diagram for this study


The various predictor variables showed different effects at different stages along the business life-cycle. However, business type and the use of funding advice significantly determined the choice of funding used at all the stages. Other factors found to have had statistically significant influence on funding used at a number of life-cycle stages are knowledge of funding and funding benefit. The effect of knowledge of funding was statistically significant from inception to expansion stage while that of funding benefit was statistically significant from inception up to growth stage and also at maturity stage. The adequacy of funding influenced funding choice and use at expansion, maturity and decline stages. The age of the business only influenced funding used at the growth stage while business location was a significant factor at the setting up stage.

With respect to business type throughout the stages, business owners who were into crop production were less likely to use internal funding as compared to the other business activity types. This result supports available literature (for instance James,2015) which indicates existence of more active private and government contract financing arrangements targeted at crops such as maize, wheat, sorghum, tobacco, soya-beans and cotton as well as beef production and piggery. The other agricultural activity types are yet to fully access significant contract funding, hence their greater reliance on internal funding. The results also support the study hypothesis that agricultural activity type influences the selection and use of funding types at different stages of business life-cycle.

With respect to use of funding advice, business owners who took sole responsibility for sourcing funding (thus not relying on financial advisors) were more likely to use internal funding throughout the business life-cycle. Those who sought funding advice were more likely to use external funding. The results therefore indicate that funding advice for agricultural SMME owners was instrumental in broadening the range of funding sources they used. This finding supports empirical literature on the importance of financial advisory services for improving financing education and broadening the range of funding sources and instruments used by agricultural SMMEs (IFC,2011; OECD,2018) The result also upholds the study hypothesis that consulting funding advisory services as opposed to relying on own knowledge encourages agricultural SMME owners to broaden the types of funding used beyond internal sources.

The extent to which a business considered to be benefiting from using a particular type of funding was instrumental to the decision for further using that type of funding. Business owners consider whether use of a type of funding is instrumental in addressing the key business problems or not at a particular life-cycle stage. A type of funding considered more instrumental in resolving key business problems was regarded as beneficial and was preferred when funding operations along the business life-cycle. From the analysis of the relationship of funding benefit and use, funding benefit was found to be influential at inception, setting up, growth and maturity stages.

Business owners at inception and setting up stages were more likely to use internal funding though this was considered as only moderately resolving their problems at those stages. The use of internal funding at these early stages was consistent with the financial life-cycle and pecking order theories. At growth and maturity stages, business owners who felt that funding used moderately solved their problems were significantly less likely to use internal funding sources than those who solved most of their problems. Hence, internal funding was considered less beneficial at later stages of the business life-cycle than at earlier stages. The results uphold the study hypothesis that funding benefit influences the use of funding along the business life-cycle.



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The knowledge of funding was found to be a statistically significant factor at inception, setting up and survival as well as at expansion stages. At inception, results show that owners with low level of knowledge were less likely to use internal sources compared to those with higher knowledge. There was no difference in the usage of funding between those with moderate and high levels of knowledge.

At setting up and ensuring survival stage, those with low levels of knowledge of funding options were more likely to use internal sources compared to those who have greater knowledge. Similarly, at expansion stage, those with low levels of knowledge were found to be significantly more likely to use internal funding sources compared to those with high levels of knowledge of funding business expansion. The results support the study hypothesis that owners with higher levels of knowledge of funding options were expected to use more external funding giving them a wider variety of funding options along the life-cycle.

Funding adequacy as a factor for use of funding was found to be significant at three of the six stages. These were the growth, maturity and decline stages. Thus, it was an important consideration when businesses were seeking to expand, consolidate their positions or wade- off decline. With respect to funding adequacy, the study was conducted on the presumption that funding options considered as adequately addressing business needs were expected to be more likely used along the life-cycle than those that partly addressed business needs.

The results show that at these, business owners who considered the funding type they used to be adequate were significantly more likely to be those who used internal funding sources as compared to those who regarded funding to be inadequate. Those who considered the funding used to be inadequate were significantly more likely to be those who used external funding. This could be the case since owing to the high cost of borrowing and the collateral demands, securing adequate external funding was always going to be difficult. Thus, those relying on internal funding were more likely to regard it as adequately meeting their needs than those who relied on external funding. This result contradicts conventional wisdom that external funding should more adequately address business needs than internal funding.

Stage specificity of funding was statistically significant at the inception and decline stages only. The study was based on the hypothesis that business owners used more of the type of funding which they considered to be suitable. They use more internal at the early stages and external funding at later stages as more suitable for addressing the problems identified.

The results indicate that those who agreed that funding should be stage specific were more likely to start with use of internal funding sources at inception stage compared to those who did not consider appropriateness of funding to be stage specific. Similarly, at decline stage, the results show that owners who considered appropriateness of funding to be stage specific were significantly more likely to use internal funding sources compared to those who do not believe so. The results were in line with literature findings regarding the use of internal funding as more suitable at the early stages and difficult phases like decline and they also confirmed the study hypothesis.

The total value of assets held by the business was found to be an important factor at the expansion and decline stages. This result was against the underlying study assumption that at any stage of the business life-cycle, higher total value of assets owned reduces the business owner's use of external funding while increasing internal funding. This assumption was based on the strong preference for own funding which is further strengthened by the high cost of debt in Zimbabwe.

At both stages, the results however show that business owners whose businesses had assets less than US\$50 000 were significantly more likely to use internal funding sources compared to those owners with business assets in excess of US\$50 000. In this case, the results show that those less endowed with own assets were the ones more likely to use internal rather than external funding. This could be due to their inability to pledge larger values of assets to secure more external funding or because of a need to retain control of their small businesses. In theory, the effect of total assets held on the use of internal versus external funding is not well established.

The effect of business location as an important predictor of use of funding was only statistically significant at the setting-up and ensuring survival stage. Yet, the presumption for the study was that proximity to major urban centres leads to greater use of external and a wider variety of more suitable funding along the business life-cycle. This presumption is in line with evidence in available literature (IFC,2011; Ruete,2015) regarding greater access and usage of more funding sources by urban as compared to more rural-based businesses.

Results show that urban and peri-urban business owners were all significantly more likely to use internal funding at survival stage compared to more rural based business owners. This contradicts the generally held notion that urban based businesses use a wider variety of funding options as a result of greater proximity and access to financial centres. This result could however be due to the fact that urban based business owners are able to raise more own funding than their rural-based counterparts. Also, the wide variety of government and donor funding facilities targeted at rural-based agricultural SMMEs could also explain the greater reliance on external funding by these entrepreneurs.

The age of the business was also a significant factor only at the growth stage. The factor was assumed to be influential with relatively older businesses expected to be able to use more appropriate external finance than relatively younger ones. The regression results indicate that at the growth stage, the owners of younger enterprises were less likely to use internal funding (likely to use more external funding) and then they would revert to more internal funding as their businesses became older. This pattern of funding as influenced by age, was contrary to the prediction of the financial life-cycle and pecking order theories which both posit that more external funding is used as the firm grows (with age as a proxy for growth). The result could be due to the limited own savings which limit the capacity for initial self-funding, hence the reliance on external funding which is later rolled back once owners have raised sufficient internal funding over time.

Across all the six life-cycle stages, ownership structure, annual turnover, number of full time employees and problem identity were found to be statistically not significant as predictors of use of types of funding, despite the fact that in the study they were presumed to have varying effects. The presumptions were based on theory and evidence in available literature (Menike, 2015; Myers and Majluf, 1984). For instance, ownership structure was expected to influence life-cycle financing (with sole proprietorships more likely to use internal funding than other forms of business ownership). A larger number of full-time employees (as a measure of size of business) were expected to be linked with use of more external funding along the business life-cycle. From a risk analysis perspective, a greater ability to clearly identify the major business problems was expected to help in using the most suitable types of funding while greater annual Turnover (like total value of assets) were expected to reduce the business owner's use of external funding.

5.4.3 The use of specific types of funding at different life-cycle stages

The specific types of internal and external funding used at each stage were analysed. The results show that own sources, bank finance, contract and donor funding were the main types of funding used (Table 5.18).

Table 5.18: Results of analysis of main life-cycle financing sources

<i>Life-cycle stage</i>	<i>Life-cycle funding</i>				<i>Total</i>
	<i>Own (%)</i>	<i>Bank (%)</i>	<i>Donor(%)</i>	<i>Contract (%)</i>	<i>%</i>
1.Inception	83	7	3	7	100
2.Setting up	58	26	6	10	100
3.Growth	44	33	5	18	100
4.Expansion	46	32	4	18	100
5.Maturity	68	20	1	11	100
6.Decline	63	22	4	11	100

Source: Author's calculations based on survey data

The results show the use of each type of funding as a proportion of total funding used at each stage. Higher percentages for each type of finance show greater use at each stage. At the inception stage, financing was dominated by use of own sources of funding (83 percent). This was followed by use of bank finance (loan) and contract finance (7 percent) and donor funding at 3 per cent. At the start up stage, there is a marked reduction in reliance on own sources (from 83 percent to 58 percent), though it remained the main greatest source.

Concomitantly, there was a marked increase in the use of bank finance. More business owners also used finance from banks (26 percent up from 7 percent), contract finance (10 percent up from 7 percent) and donor funding (percent up from 3 percent). There was a shift away from own sources to more use of the other sources. A similar trend was exhibited for growth and expansion stages, with greater proportions of agricultural SMME owners relying more on other sources than own sources of finance. However, during maturity stage and decline there is a reversal of the trend, with owners looking more inwards for funding.

The matrix columns reveal the changes in the use of a particular source of finance from inception to decline stage. While the overall picture shows predominant reliance on own sources of funding along the life-cycle, a comparative analysis of the use of all the sources shows relative use along the life-cycle stages. Results revealed that there was a marked decrease in the use of own sources of funding (from 83 percent to 44 percent) from inception stage to growth stage. Even if the proportion of own sources was still highest, comparatively, its relative weight in the mix of funding sources declined while those of other sources increased.

There was however a reversion to own-funding during maturity and decline stages. The reduction in the use of own funding occurred con with a rise (7 percent to 33 percent) in the use of bank finance and 7 percent to 18 percent for contract finance. With bank finance (the major source of external finance), use increased between stages 1 (inception) and stage 2 (Setting-up). It then declined after growth stage, with a slight surge at decline stage.

Donor funding also rose though marginally. It showed increased use from 3 percent to 6 percent between inception and set-up stages, followed by a sharp decline to only 1 percent during expansion stage but spiked during the decline stage. In the case of contract finance, use rose sharply from 7 percent to 18 percent between inception and expansion stages, after which it declined during maturity and decline phases.

The observed use of funding sources along the life-cycle stages shows that there were some variations in the way business owners use stage funding. Results corroborate the financial life-cycle and the pecking-order theories to some extent. These postulate that firms tend to reduce dependence on own funding and increase the use of other sources of funding as they progress to latter stages in the business life-cycle (Myers and Majluf, 1984; Weston and Brigham, 1970).

There is however, a strong evidence also of the persistence of internal funding in the capital structure of the small business as it forms the largest albeit declining component at most of the stage. A strong evidence of persistence of high level use of internal funding indicate that for all these business owners, internal funding is a permanent rather than transitory component of the capital structure in their businesses. The study did not identify the limit in the use of funding beyond which, the owners start to seek external funding. However, such limit varies according to business type, value of assets held by the owner, turnover and the propensity to borrow. The persistent reliance on internal funding is contrary to life-cycle theories. In theory, internal funding as a transitory component in the capital structure is replaced at later stages of development as business owners use more preferred external sources of funding (Kim and Suh,2009).

5.4.4 Influence of business size on life-cycle funding

The effect of business size whose classification was described in Chapter Four was analysed. The analysis checked for variations in the proportions of types of funding

used by different size categories at each life-cycle stage. Specifically, the analysis determined whether micro, small and medium-sized businesses used different proportions of each type of funding at each stage. Table 5.19 summarizes the results of the analysis.

Table 5.19: Type of funding used per stage by business size

Cycle stage	Business size	Type of funding used as a proportion (%) of total funding			
		Own funding	Bank/Microfinancing	Donor	Contract
Inception	Micro	83	7	1	8
	Small	83.3	4.4	10	2.3
	Medium	100	0	0	0
Setting up	Micro	57	22.5	3.8	16.7
	Small	40.2	42.5	13.8	3.4
	Medium	66.7	53.3	0	0
Growth	Micro	47.4	31.3	4.2	17.1
	Small	39.6	31.9	7.7	20.8
	Medium	41.7	58.3	0	0
Expansion	Micro	49.1	30.8	3.7	16.4
	Small	36.7	32.2	4.4	26.7
	Medium	53.8	46.2	0	0
Maturity	Micro	64.1	21.5	0.5	13.9
	Small	73.3	17.8	0	8.9
	Medium	83.4	8.3	8.3	0
Decline	Micro	72	10.3	2.8	14.9
	Small	68.2	19.3	6.8	5.7
	Medium	41.7	50	0	8.3

Source: Author's calculations based on survey data

As shown in the table above, across all size categories businesses rely more on internal funding, with other types only playing a complementary role. Micro enterprises however significantly increase their use of bank and micro-finance especially from inception (7 percent) to expansion stages (30 percent). Some increases are also registered in the use of other types of external finance, for instance the use of contract finance. The same trend is evident for the small business category for which bank and micro-finance constitutes only 4.4 percent at inception stage, peaking at 42.5 percent and setting up stage.

For the medium-size category, while the owners start with 100 percent own funding, the use of other types of external funding rise dramatically to peak at 58.3 percent bank and micro-financing at growth stage. The overall result is that businesses in the medium-size category tend to use greater proportions of external funding than small and micro-businesses as they transition from inception to decline stage. Thus, while overall there is a predominant and persistent reliance on use of internal funding by all

the SMMEs, size has a great effect in terms of increasing the proportions of different types of external funding used in the life-cycle.

5.4.5 Use of funding advice for stage-funding

The use of funding advice is crucial in broadening the knowledge of funding sources and instruments that may be used by business owners. Funding advisory services assist in the selection of the most appropriate funding type that match the specific needs and cash flow patterns of a business. Results from responses regarding the use of funding advice reveal that most of the funding used for each stage with 71.3 percent of business owners indicating that funding was self-sought (Figure 5.6). Only 28.7 percent used funding advisory services. The limited use of commercial funding advisory services providers could be a cost-cutting measure. However, cheaper funding advisory services provided by donor agencies, on-governmental organisations and through government entrepreneurship development schemes could be accessed at no or minimal cost. The limited use of funding advisory services corresponds to the predominant use of own-sources of funding along the business life-cycle.

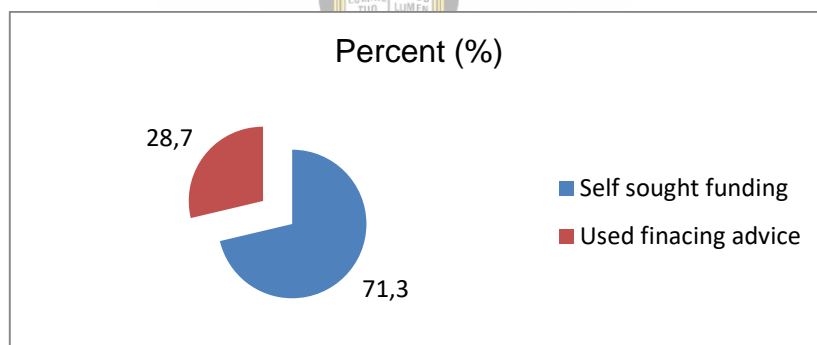


Figure 5.6: The use of funding advice by agricultural SMMEs owners surveyed
Source: Author's computation based on survey data

5.4.6 The key stage problems targeted for funding

The use of stage funding by knowledgeable business owners is influenced heavily by the key stage problems to be addressed. As a result, business owners have to be aware of the key stage problems in order to determine the right type of funding to be used. Table 5.20 summarizes the results of analyses of the key problems cited, reflecting their frequency for each of the six business life-cycle stages.

Table 5.20: The key stage problems targeted for funding

Business Stage Problems	Frequency	Per cent	Cumulative Frequency	Cumulative Per cent
The key inception stage problems				
Poor feasibility	82	25,6	82	25,63
Poor product offering	21	6,6	103	32,19
Poor business plan	96	30,0	199	62,19
Inadequate resourcing	121	37,8	320	100
Key start up stage problems				
Poor cash flows	9	2,8	9	2,81
Inadequate resources	264	82,5	273	85,31
Poor management systems	21	6,6	294	91,88
Unrealistic operational targets	22	6,9	316	98,75
Poor pricing	4	1,3	320	100
Key problems at growth stage				
Limited capacity utilization	44	13,8	44	13,79
Poor demand	12	3,8	56	17,55
Inadequate resources/assets	190	59,6	246	77,12
Overtrading	7	2,2	253	79,31
Poor management skills	28	8,8	281	88,09
Poor market adaptation	38	11,9	319	100
Key problems at expansion stage				
Inelasticity of supply				
Stock outs	29	9,2	29	9,15
limited new opportunities	19	6,0	48	15,14
Undercapitalization	99	31,2	147	46,37
High operational costs	136	42,9	283	89,27
Poor management skills	9	2,8	292	92,11
	25	7,9	317	100
Key problems at decline stage				
Shrinking markets	47	15,7	47	15,72
lack of new products	31	10,4	78	26,09
Rising co-ordination costs	63	21,1	141	47,16
Declining profitability	32	10,7	173	57,86
Poor re-capitalization	126	42,1	299	100

Source: Author's compilation based on survey data

5.4.7 The stage-specificity of life-cycle funding

The business owners were requested to comment on the statement that “some types of financing are more appropriate for addressing particular life-cycle stage problems” The results from analysis of responses show that 70.3 percent of the business owners agreed that suitability of funding is stage-specific (Figure 5.7). This shows that the business owners were aware of the need to vary the types of funding used per stage in order to match the specific funding needs at each stage with the right type of finance and instruments.

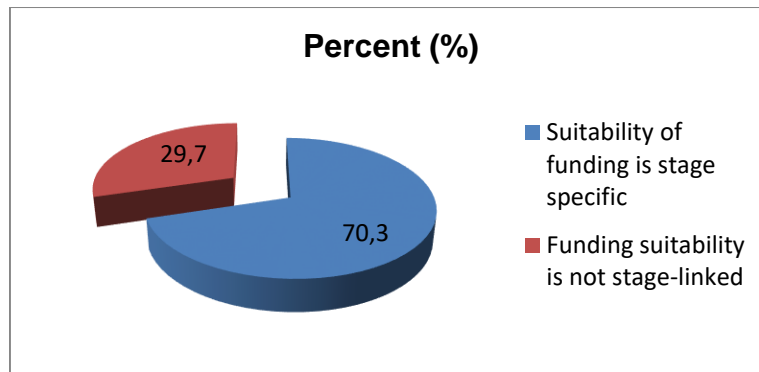


Figure 5.7: Response to stage specificity of suitability of funding
Source: Author's calculations based on survey data

Thematic analysis of their comments shows that the business owners considered a number of factors which determined suitability of funding. These include the needs at each stage of the business, the structure of the facility and borrowing conditions, timing of funding, and the scale of operations. Those who viewed use of funding as influenced by these factors pointed out that suitability and efficacy of any type of funding used depends on the stage at which the funding is used. Some funding is more appropriate for use at specific stages in the business life-cycle. For instance, one of the respondents who are of this view explained that:

“Short-term capital [is] not ideal for inception and start-up stages as well as decline stages. [These] need long-term capital. Banks [are] only availing short-term (up to 36 months)” (Respondent 309).

Another business owner explained that:

“Long-term finance [is] suited to development stages of the project [while] bank loans [are] useful when the business is established and can repay short-term loans without stress on cash flows” (Respondent 300).

Not all the business owners however considered funding to be stage-specific in terms of suitability. Those who regarded use of funding to be independent of these factors cited the need for block funding with funds secured once particularly for smaller scale businesses. They argued that any type of funding can be used at any stage with the desired impact or effect realised. For instance, one respondent preferred a situation whereby:

“funding come in full to sustain the project as a whole [so that] the fertilisers and all inputs are put in place before price changes” (Respondent 219).

The preference expressed was clearly motivated by the need to beat the price escalations that are a major challenge when funding is sourced stage-by stage. Another business owner felt that stage-funding could still be achieved through funds secured through block funding, arguing that:

“No, [I] need all the capital at once and then I divide the money till the project is finished” (Respondent 210).

5.5 Overview of the results

The agricultural SMMEs owners surveyed were engaged in a variety of business activities. The businesses differed in terms characteristics such as age, ownership structure, annual turnover, the total value of assets held, the number of full-time employees and business location. The business owners had moderate to fair amount of knowledge of funding options available on the market. Funding was largely unaffordable and its sourcing was negatively affected by a number of challenges faced depending on the business stage for which it was sourced. These challenges limited the scope for using appropriate funding at different stages of the business life-cycle.

In terms of life-cycle funding, binary logistic regression analysis results show that business owners initially heavily relied on internal sources for inception and setting-up stages (stage 1 and 2). They shifted more towards external funding at growth and expansion stages (stage 3 and 4) before reverting to mainly relying on internal funding for maturity and decline stages (stage 5 and 6).

More specifically, the external funding sources used were mainly traditional bank and micro-finance loans, contract and donor funding in that order. Binary logistic regression analysis results of modelling funding use against a number of predictor variables at each stage further show different effects of the factors per stage. Use of stage funding varied markedly depending on a number of influential factors. These include firm and owner characteristics as well as stage specific problems.

Firm characteristics include type of agricultural activity, business age, ownership, annual turnover, value of assets, the number of full-time employees and location of business activity. The influential owner characteristics were owner’s awareness of funding options, use of funding advisory services, the views on stage specificity of

funding, funding adequacy and benefit. A major factor relating to stage-specific problems was the ease with which the key stage problems could be identified and targeted for funding.

5.6 Chapter summary

The chapter discussed the results of analysis with respect to the first and second research objectives of the study. It presented results on the agricultural SMME owners' awareness of the financing sources available, the mostly used, affordability of funding, the challenges faced and their impact on selection of funding. The second part discussed the use of funding at each of the six stages of the life-cycle model adopted for the study. The use of funding is influenced by several factors whose effects are analysed. The chapter concluded with an analysis of whether agricultural SMME owners regarded suitability of funding as stage specific.



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CHAPTER SIX:

APPROPRIATENESS OF LIFE-CYCLE FINANCING AND BEST PRACTICES

6.1 Introduction

The preceding chapter discussed the study results relating to the first and second research objectives. This chapter presents the results pertaining to the third and fourth research objectives. The third objective was to obtain an assessment of the appropriateness of the stage-funding used by agricultural SMME owners to address the main problems at each business life-cycle stage. The fourth objective aimed at identifying the funding types which business owners and financiers regarded as more appropriate for each stage. These suggestions are a vital ingredient in shaping up a proposing a life-cycle financing framework for agricultural SMMEs in Zimbabwe. The chapter is thus divided into five sections with sections 6.2 and 6.3 discussing results for the third objective and section 6.4 presenting the results relating to the fourth research objective. The last section provides a summary of the results discussed.

6.2 The most problematic stages and funding used

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Businesses face different sets of problems at each stage of the life-cycle. Before sourcing funding for agricultural SMMEs, it is vital that these stage-problems are studied. The knowledge obtained assists in identifying the most appropriate type and source of finance to use at each stage. It is even more important in identifying the most problematic stages that require prioritized attention.

6.2.1 Identifying the most problematic stages

Agricultural SMME owners were asked to identify the most problematic stages in their business life-cycle. The most problematic stage was the business life-cycle stage considered to be most difficult to manage the business through. Two approaches were used simultaneously with the results compared to ascertain the consistency in the ratings of the stages by the entrepreneurs. These were simple identification and Qualitative-FMECA method described in Chapter Four. With simple identification, business owners simply named the stage they consider the most problematic. Table

6.1 shows how the stages were identified as the most problematic stages using this method.

Table 6.1: Most problematic stage by simple citation method

Most Problematic stage	Frequency	Percent	Cumulative Frequency
1.Inception	14	4.3	14
2.Setting up and survival	143	44.7	157
3.Growth	71	22.2	228
4.Expansion	70	21.9	298
5.Maturity	6	1,9	304
6.Debate	16	5.0	320

Source: Author’s calculations based on survey data

As shown in Table 6.1 above, nearly 45 percent of the agricultural SMME owners considered stage two (setting up and ensuring survival) as the most problematic stage. This was followed by stage three (growth) cited by 22.2 per cent, stage four (business expansion) with 21.9 percent, stage six (decline) with 5 percent and stage one (inception) at 4.3 per cent. Stage five (maturity) was considered as the least problematic with only about 2 percent of business owners citing it as most problematic. This frequency analysis of the responses by simple identification yielded the rank order of the stages displayed in Table 6.2.

Table 6.2: Rank order of the stages by level of difficulty

Rankings	Simple identification method					
	1st	2 nd	3 rd	4 th	5 th	6 th
Stage Number	2	3	4	6	1	5

Source: Author’s compilation based on Survey results

With this approach however, business owners did not qualify their basis for identifying a stage as most problematic.

The Qualitative-Failure Mode, Effects and Criticality Analysis used as a second method enabled them to provide that basis through ratings of the occurrence of key stage problems, severity and the ease of detecting them as described in section 4.4.3. The results of the computed average rating for incidence of occurrence, severity and ease of detecting are shown in Columns 2, 3 and 4 respectively in Table 6.3.

Table 6.3: Risk Assessment Matrix Results of Q-FMECA

<i>Stage of Potential Failure Mode</i>	<i>Ave. Occurrence rating (O)</i>	<i>Ave. Severity rating (S)</i>	<i>Ave. rating for ease of Detection (D)</i>	<i>RPN =O*S*D</i>	<i>Stage Rank</i>
1.Inception	5.309375	5.987500	5.821875	185.06	5
2.Setting up	6.568750	6.565625	5.990625	258.36	1
3.Growth	5.881250	5.906250	5.981250	207.77	4
4.Expansion	5.978125	5.996875	5.912000	211.95	3
5.Maturity	5.351097	5.658307	5.646880	170.98	6
6.Decline	6.122257	5.830721	6.518800	232.70	2

Source: Author's computations based on survey data

As reflected in column 2, the setting up and survival stage (Stage 2) had the highest average occurrence rating indicating that it was the stage where business owners considered to have had the highest incidence of key problems occurring. Stage 6 (decline) was rated as having also relatively high incidence of key problems occurring.



In addition to incidence of occurrence of key problems, the risk profile of the stage increases if the risks occurring are judged to be high on the severity scale. Rating of severity is a measure of the impact of the key problem on the chances of success of the business. The business challenges can therefore have high incidence but relatively low impact on business success. Others may have low incidence but high severity once they occur. For instance, at growth stage, loss of a key market may occur once but cause severe damage to the business.

In relation to other stages, the main problems occurring at stage 2 were rated as having the greatest average negative impact on the chance for business survival. The stage therefore has the highest incidence of key problems with the greatest combined negative effect of the chance of survival of agricultural SMMEs. The owners indicated that they experienced the most significant problems at this stage.

The ease of identification or detection of key stage problems also plays a major role in assisting business owners to put in place early appropriate measures necessary to address the challenges. The results show that the key problems at the decline stage were on average rated as the easiest to identify. This was followed by problems at the setting up and survival stage. The ease of identification also shows how prominent a

problem is in the mix of problems faced by a business at successive stages. This makes it easy for business owners to describe and specify the measures that would best address it. The maturity stage, considered as the safest and easiest stage to manage a business through however has the lowest average rating for ease of detection. This lowest average rating shows that at this stage, key problems can go for some time relatively unnoticed as business owners relax in the comfort of business maturity. The inception (stage 1) has the second lowest average rating for ease of problem identification. The high level of optimism at this early stage could explain why it is relatively difficult for business owners to identify key challenges that threaten start-up and survival.

Column 5 shows the overall risk profile for each stage, represented by the Risk Priority Number (a product of the three measures of risk). The stage with the highest RPN is the most problematic due to prominence (easily detected), high severity and high incidence of associated problems as rated by agricultural SMME owners. Ranking the RPNs yielded the rank-order shown in Column 6. This reveals that stage 2 (setting up and ensuring survival) was considered the most problematic of all stages. This was followed by the decline phase, expansion, growth, inception and lastly maturity stage in order of declining level of difficulty.

Comparing the results of the simple identification and the Qualitative FMECA methods reveals a strong similarity and consistency of the rank order produced (Table 6.4). The use of the two methods was a deliberate exercise to establish the level of consistency in the rating and ranking of the business stages.

Table 6.4: Comparing most problematic life-cycle stage rank-orders

Rank Identification Method	Rank order of stages					
	1	2	3	4	5	6
1 Most Problematic Stage by simple identification	2	6	4	3	1	5
2 Most Problematic Stage by RPN	2	3	4	6	1	5

Source: Author's comparison based on survey results

With the exception of growth and decline stages which swap positions, the other four life-cycle stages maintain their positions. By simple citation, the decline phase is ranked as the second most problematic stage whereas the growth stage is identified as the fourth in the rank order. However, using the Q-FMECA method, the growth stage becomes second most problematic while the decline stage ranks fourth.

The closeness of the rank-orders obtained by the two different approaches reveals the soundness and consistency of agricultural SMME owners' judgment of the stages as problematic. In this case, these business owners demonstrate sufficient ability to make valid judgments on the key problems faced as well as the main problematic stages. The owners reveal an understanding of the key problems occurring at each stage and are to a large extent able to provide a well-considered rank-order of the life-cycle stages from the most problematic to the least.

The ability to provide a relatively consistent assessment of relative difficulty of the life-cycle stages was in line with the assumption held about the selected business owners. They were assumed to have entered into those types of agricultural and related activities for which they have sufficient knowledge of typical problems experienced at each stage. They are assumed to have a functional appreciation of how to run the type of business activity, the main problems expected and the implications of occurrence of these key stage problems. As a result, the rank order from Q-FMECA was the one adopted for this study given that it had a better risk assessment base.

6.2.2 Identifying the key problems at the most challenging stages

The setting up and ensuring survival (stage 2), growth (stage 3), expansion (stage 4) and decline (stage 6) are the four stages identified as most problematic operationally in that order. During inception and maturity stages, agricultural SMMEs indicated that they faced the least challenges. For each of the four main problematic stages, the entrepreneurs cited the main problems which were encountered. An identification of the key problems was necessary since it is the nature of these problems which determines the sources and types of finance that are most appropriate at a particular stage.

The most commonly cited problems were considered by the owners to be the main problems with the greatest negative impact on business operations at a particular stage. Awareness of these problems enables the identification of appropriate finance which can be targeted to address these problems. In this way, owners are better prepared to manage the businesses and steer them through the most challenging phases. These main problems are the reasons for which sourcing of appropriate funding for each stage is necessary.

For setting up and ensuring survival, nearly 83 percent of the entrepreneurs sought funding to address inadequacy of necessary inputs, equipment and infrastructure (Figure 6.1).

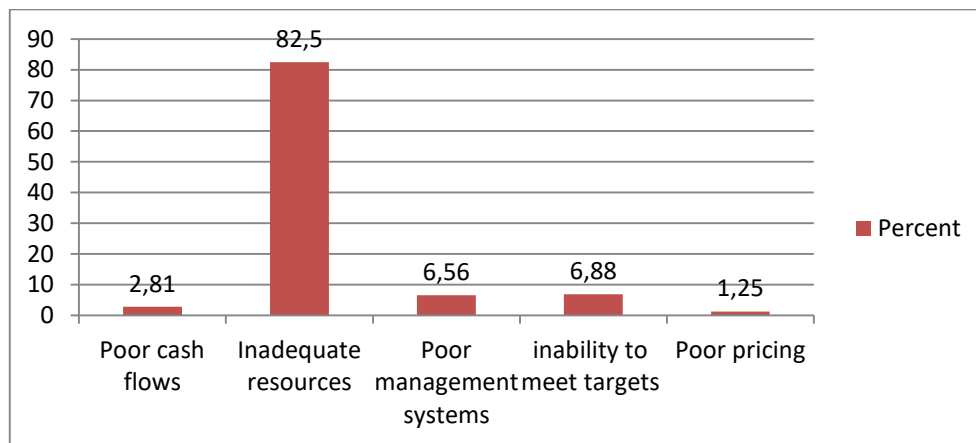


Figure 6.1: Key problems at setting up and survival stage

Source: Author's calculations based on survey data.

The other key problems were failure to meet operational targets (6,9 percent) and poor management systems (6,6 percent) particularly in activities requiring intensive care such as poultry and horticulture. Thus, funding that was sought was aimed at addressing these main problems.

For the growth stage, the problem of inadequate resources is cited by nearly 60 percent of the agricultural SMME owners, with limited capacity utilization (13,8 percent) and poor market adaption (11,9 percent) as the other key challenges for growing the businesses (Figure 6.2).

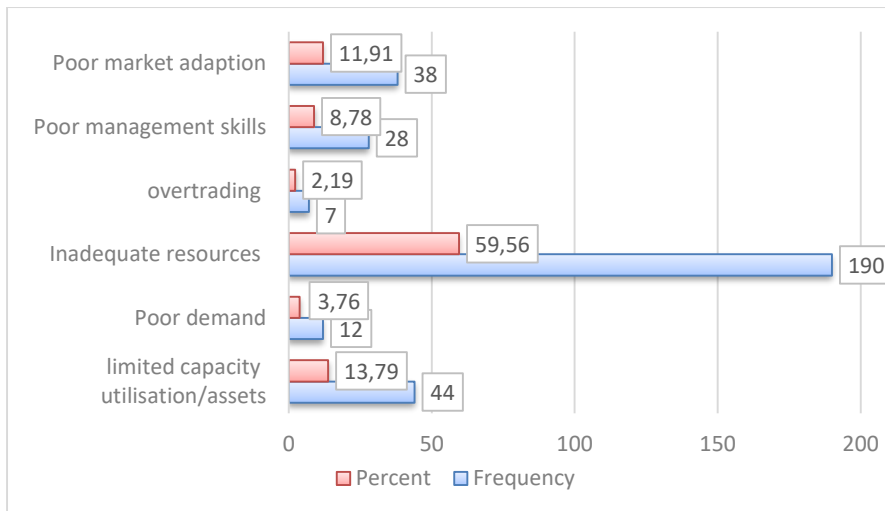


Figure 6.2: Key problems at growth stage
 Source: Author's calculations based on survey data

Beyond setting up and surviving, growing the businesses requires additional resources. Resources are needed to increase the stocks of livestock feed, seed and fertilizers. Agro-processors need to stock more inventory of raw materials to utilize their processing capacity. Market adaptation is a challenge given the volatile nature of the business environment. Hence the businesses need adequate funding to ensure that they are able to meet the changing patterns of demand on the market. The other key problems were failure to meet operational targets (6,9 percent) and poor management systems (6,6 percent) particularly in activities requiring intensive care such as poultry and horticulture. Thus, funding that was sought was aimed at addressing these main challenges.

The mostly cited problems for the expansion stage are undercapitalisation with almost 43 percent of the agricultural SMME owners flagging it, limited new market opportunities (31,2 percent), inelasticity of supply (9,2 percent) and inadequate management skills needed to support business expansion (7,9 percent). These are shown in Figure 6.3.

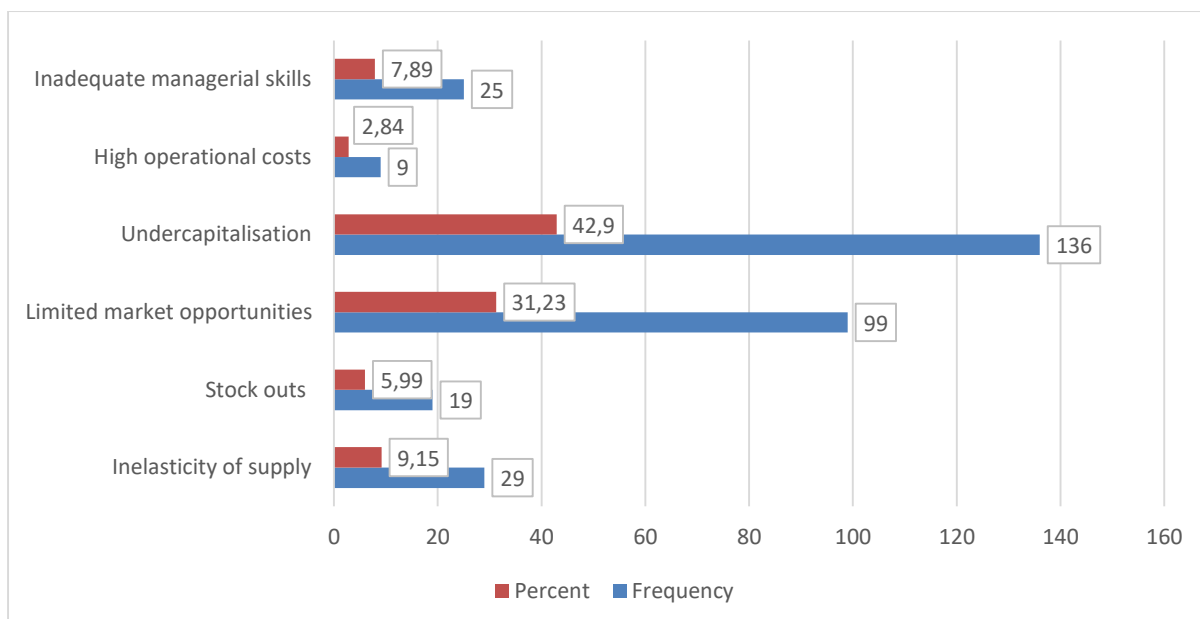


Figure 6.3: Main problems faced at expansion stage
 Source: Author's calculations based on survey data

Expanding a business requires more funding to shift the level of operations from that set at setting up or growth phase. Those in crop and animal husbandry as well as horticulture indicated that they require additional funding to purchase more land, greater quantities of stock-feed and crop inputs. Producers in poultry and small livestock production activities face the challenge of limited housing, hence the need to construct larger poultry sheds and rabbit cages to accommodate larger batches. With supply inelasticity, expansion is a major problem since production does not easily increase following surges in market demand. A lack of well-trained business managers and marketers also causes major problem when businesses need to expand. These personnel are critical in mapping out the strategies for business expansion and market adaption.

In the case of the decline stage, inadequate investment (42%), rising co-ordination costs (21%), shrinking markets (15,7%) and declining profitability (10,7%) are highlighted as major problems contributing to business decline (Figure 6.4).

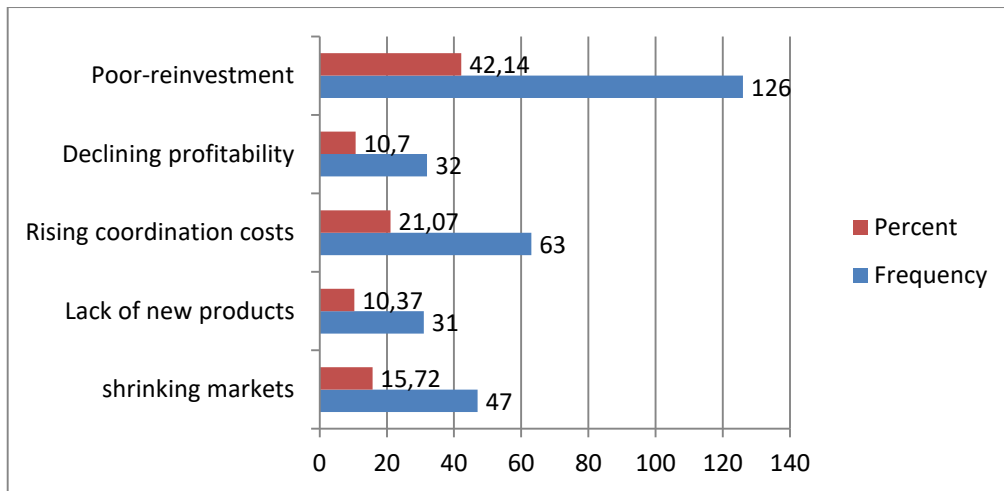


Figure 6.4: Key problems cited for the decline stage
Source: Author's calculations based on survey data

The level of investment is a key determinant of business growth and survival with greater investment levels needed to anchor business growth. The prominence of this problem is directly linked to the predominant use of own sources of funding by majority of the business owners. Rising co-ordination costs are mainly due to the unstable macro-economic contexts typified by high inflation and declining profitability-one of the major sources of internal funding. Lastly, shrinking of markets is attributed by agricultural SMME owners to the declining purchasing power of consumer incomes as a result of inflation.

6.2.3 The main problematic stages as cited by financiers

Out of the twelve financing executives who participated in the survey, five (41.7%) identified stage two (setting up and ensuring survival) as the most problematic stage for agricultural SMME owners and managers. Four of them (33.3%) cited stage three (growth) as the most problematic stage and three (25%) cited stage four (expansion) as the most difficult stage for agricultural SMMEs owners and managers. The provided explanations of the difficulties and descriptions of the main problems at each life-cycle stage. For instance, one of the financing executives (FE) who identified stage two as the most problematic stage had this to say:

“Stage 2. The problem is operationalizing the business plan in a volatile business environment with rising input costs as well as prices for products on the market” (FE 11).

Another financing executive cited stage 2 as the stage at which the business owner's dream and vision get a reality check in saying:

"At stage 2, the business [owners] face reality at this stage in terms of inadequate inputs, infrastructure and failure to meet operational targets" (FE 10).

The financing executives who cited the growth stage as the most problematic stage highlighted the inadequate preparation for subsequent stages once a business is set up. They pointed out that as a result, business owners find themselves unable to grow the businesses due to inadequate equipment and inputs necessary to support growth. One of the financing executives summarized this point by saying:

"Most of the project owners do not adequately prepare for next business cycle stages and budgeting for next phase of the project" (FE 8).

Yet another pointed out the lack of diversified markets as a major problem especially for those involved in production of cereal crops. The executive pointed out that:

"Stage 3 due to the lack of diverse markets. Most [entrepreneurs] rely on the Grain Marketing Board (GMB) which has serious challenges with payment to farmers for produce delivered. The GMB delays for up to 6 months and this affects funding for further stages of operations" (FE 10).

Those financing executives who identified stage four (expansion) as the most problematic for agricultural SMME owners cited the lack of infrastructure to anchor business expansion and the volatility of markets which are also often flooded. For instance, one of the financing executive indicated that *"at stage four, the lack of enough equipment or infrastructure for business expansion is a major challenge" (FE 1).*

The main problematic stages and their related key problems as identified by financing executives were very similar to those identified by agricultural SMME owners. Setting up stage ranked first in each case. This was followed by growth and expansion stage. Curiously, stage one (inception stage) does not feature also as one of the main problematic stages as was the case for the entrepreneurs. This is despite the fact that the financing executives acknowledged that there is very limited financial and technical

assistance being offered to aspiring SMME owners. This however could be explained by the fact that financiers only get to know the challenges experienced by already set-up businesses. Business owners that seek financial and technical assistance from external financiers would have gone past the conceptualisation challenges such as sound business idea generation, feasibility and viability assessment, business planning as well as training and capacity building.

Available literature on challenges faced by emerging small businesses show that most businesses face significant challenges at the early stages especially at setting up and survival stages (Karadzic et al,2014; Gulst and Maritz,2015). This is the stage at which small businesses fail. Thus, identification of stage two in this study as the most problematic stage is consistent with empirical findings (Singer, Arreola and Amoros, 2014). While business decline is one of the problematic stages cited by the business owners, it is not necessarily the most challenging phase since it relates to managing what exists as opposed to trying to set up and ensuring survival of a business in a challenging environment.



6.2.4 The ease of identifying the key stage problems

On a 4-point Likert scale, the business owners were requested to rate the ease with which they could identify key business stage problems. They had to indicate whether it was *not possible*, *very difficult*, *easy* or *very easy* for them to identify the key problems they had to fund at each stage. The ability of the business owners to identify the key problems requiring funding is an important factor that determines the ability to source and use the most suitable funding at the key stages in the business cycle. The easier it is for business owners to identify the main key problems, the greater is the likelihood that they source suitable funding.

The ease with which entrepreneurs identify the stage problems is therefore positively linked to the level of their understanding of the business operations and specific financing requirements. This is further positively associated with the magnitude of the problem at a particular stage since bigger challenges are often easier to identify as compared to minor ones. Table 6.5 summarises the results of the ratings by business owners.

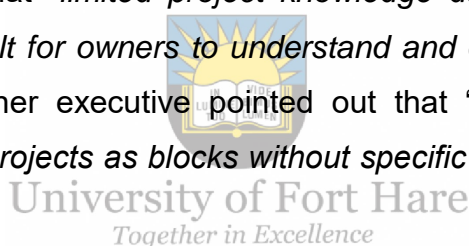
Table 6.5: The ease of key problem identification

The ease of problem identification	Frequency	Per cent	Cumulative Frequency	Cumulative Per cent
1. Not possible	8	2.5	8	2.5
2. Very difficult	84	26.3	92	28.8
3. Easy	187	58.4	279	87.2
4. Very easy	41	12.8	320	100

Source: Author's calculations based on survey data

58.4 percent of the entrepreneurs indicated that they found it easy to identify the key challenges at the key business stages. Cumulatively, 71.4 percent found it easy and very easy for them to figure out the key challenges at each of the business stages.

From the assessment of the financing executives however, most of the agricultural SMME owners are not able to easily identify major stage problems early enough. This explains the challenges and failure of businesses experienced in the subsector. They cited the lack of appropriate knowledge as a major challenge faced. One financing executive concluded that *"limited project knowledge due to absence of feasibility studies makes it difficult for owners to understand and detect stage problems early enough"* (FE 6). Another executive pointed out that *"most of the entrepreneurs generally regard their projects as blocks without specific key stages to concern with"* (FE 8).



Some financing executives however acknowledged that there were some business owners with sufficient knowledge to enable them to analyse and determine key stage problems. They said that *"while those projects with knowledgeable owners are well run, most of the owners have no capacity to identify early the key problems per stage"* (FE 3) and *"usually quickly identify project problems early and seek financing advice"* (FE 5). Yet another executive highlighted the important advisory role played by financiers by indicating that *"No. Without our intervention, majority have no capacity to detect the problems early"* (FE 11). The difference between the two assessments could be explained by the more prudent approach taken by financing executives in their assessments of business management and prospects as compared to business owners who are often driven by optimism.

6.2.4 The main funding used at the key business stages

The main types of funding used at each of the four most critical stages were identified. This exercise was pivotal to determining how the stages that posed the greatest threats of business failure were funded including the appropriateness of the funding used. Thus, the main types of funding used were juxtaposed to the key problems cited at each stage as shown in Table 6.6 below.

Table 6.6: Top four problematic stages and the main funding used

Problematic stage	Key problems cited	Main stage funding used as a proportion of total funding
2	<ul style="list-style-type: none"> • Inadequate resources/assets • Meeting operational targets • poor management systems 	<ul style="list-style-type: none"> • Own sources (58%) • Bank finance (26%) • Contract funding (10%) • Donor funding (6%)
3	<ul style="list-style-type: none"> • inadequate resources • limited capacity utilization • poor market adaption • Meticulous 	<ul style="list-style-type: none"> • Own sources (44%) • Bank finance (33%) • Contract funding (18%) • Donor funding (5%)
4	<ul style="list-style-type: none"> • undercapitalisation • limited new market opportunities • inelasticity of supply • inadequate management skills 	<ul style="list-style-type: none"> • Own sources (46%) • Bank finance (32%) • Contract funding (18%) • Donor funding (4%)
6	<ul style="list-style-type: none"> • inadequate investment • rising co-ordination costs • shrinking markets • declining profitability 	<ul style="list-style-type: none"> • Own sources (63%) • Bank finance (22%) • Contract funding (11%) • Donor funding (4%)

Source: Author's compilation based on survey data

The results show that at the setting up and ensuring survival stage (stage 2), while faced with inadequate inputs and key infrastructure, elusive operational targets and poor management systems, agricultural SMME owners relied predominantly on own sources of funding (58%). A sizeable amount is sourced through banks and micro-financing institutions (26%), while contract and donor funding provide smaller contributions to the funding mix.

During the second most problematic stage, the growth stage as identified through Qualitative-FMECA discussed above, the agricultural SMME owners funded their businesses again mainly through own funding sources (44%), though to a lesser extent as compared to setting up and ensuring survival stage. There was a marked

increase in the use of bank and micro-finance (33%), followed by greater use of contract funding (18%) and donor funding (5%). At this stage, the main key challenges that emerged were inadequate infrastructure to anchor business growth, limited capacity utilization mainly due to inadequate inputs and the challenges with adapting to the volatile market and economic environment.

With respect to the expansion stage (cited as the third most problematic life-cycle stage), the proportion of own funding used slightly increased (to 46%) at the expense of bank and micro-financing (32%) and donor funding (4%). The use of contract finance remained at the same level as compared to that at the growth stage. During this stage, the main problems that posed the greatest challenge were lack of adequate capital, limited new market opportunities, inability to increase supply to match demand and lack of appropriate management skills necessary to search new markets and manage expanding agricultural activities.

The funding used at the decline stage was largely raised from own sources (63%), bank and micro-finance (22%), contract funding (11%) and donor funding (4%) in that order. The agricultural SMME owners indicated that funding sourced was targeted at increasing investment in the business, boosting key operational areas to reduce coordination costs, widening existing markets and creating new markets ones to stem-off business decline. These were the areas of business operations that posed the greatest threats to business survival. The shrinking of markets was linked to the declining consumer incomes, rising inflation and the highly competitive business environment as many owners set up their businesses in similar markets to boost their family incomes and livelihoods. The stiff competition contributed to declining profitability which in turn caused business decline.

Whilst the inception stage emerged as the least problematic stage for the SMMEs, financiers however faced challenges funding the stage. Due to the lack of trading history and credit records, banks and micro-financiers do not fund this stage for agricultural SMMEs. This means that the financial markets leave important inception activities such as business idea research and development, feasibility and viability assessment, planning, business training and capacity building to be funded using own or donor funding. The use of such funding at the key stages identified raises the key

question of suitability of such funding in view of the importance of survival and growth of agricultural SMMEs to the agricultural sector and the economy.

6.3 Appropriateness and adequacy of stage funding used

The third objective was to assess the extent to which financing used addressed the critical life-cycle problems for their businesses. The assessments were obtained from both the SMME owners and financing executives. The significance of the assessment is that available literature reflects more on the assessments by private financiers. Such assessments are mainly conducted to support the market-oriented drive to increase the up-take of their financial products will minimal focus on the suitability of financial products for agricultural SMME needs.

6.3.1 The SMME owners' assessment of suitability of stage funding used

Agricultural SMME owners were asked to assess whether if funding they used at each stage was appropriate or not in view of the challenges they sought to address. Table 6.7 show the results of analysis.



Table 6.7: Suitability of stage funding used

Funding Suitable	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1.Yes.	77	24,1	77	24,06
2.No.	243	75,9	320	100

Source: Author's computations based on survey data

Almost 76 percent of the SMME owners regarded funding used as not appropriate in addressing key stage challenges encountered. As a follow-up to their overall assessment, the owners were requested to express their measurement of the level of appropriateness of funding used on a 5-point Likert-scale. They had to indicate whether funding was *completely inappropriate, largely inappropriate, partially appropriate and addressing major problems, satisfactorily appropriate and addressing key problems and perfectly appropriate and addressing all key stage problems*. Figure 6.5 shows the results of the analysis of the assessments given.

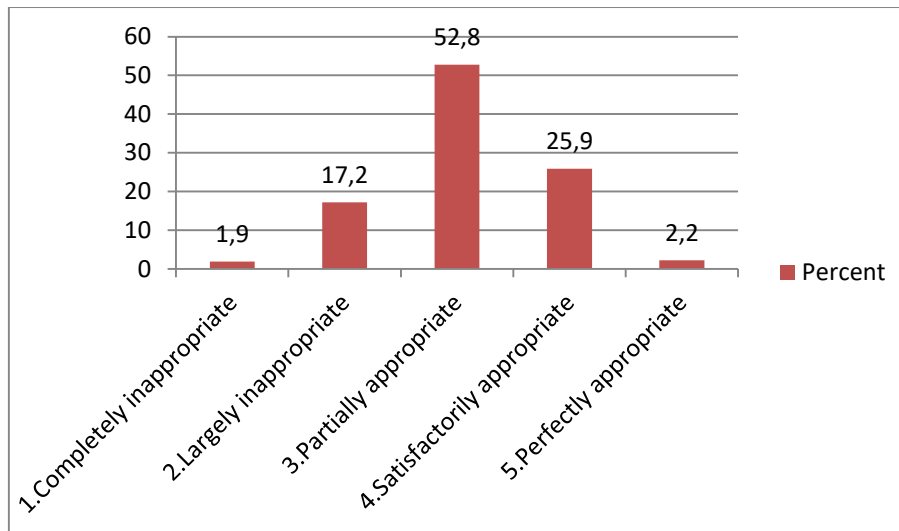


Figure 6 5: Agricultural SMME owners' assessment of funding appropriateness
 Source: Author's calculations based on survey data

To validate the assessment made by business owners regarding the suitability of funding used by agricultural SMMEs, financing executives were also asked rate appropriateness of funding on the same scale used by the business owners. Of the 12 financing executives surveyed, 10 (83 percent) regarded the funding used by agricultural SMME owners to be completely to largely inappropriate. Only 17 percent regarded the funding used to be partly appropriate as it addressed a few of the key same problems. These results therefore supported those from the self-assessments made by the agricultural SMME owners.

The participants in each of the two samples were requested to explain the reasons behind their assessment of suitability of funding used at each stage of the life-cycle for the agricultural entities. Several themes emerged from the explanations given by business owners as to why funding used was not appropriate. The reasons cited for inappropriateness centred around the type of need, the timing of provision of funding, the type of funding used, the tenor of the funding facility and the cost of structure.

In relation to the type of need, in the early stages, business owners indicated that funding was not structured to “*fully cover training and disease control*” (Respondent 4). At inception stage, the own funding mainly used was not suitable for activities such as research and development on project idea, feasibility and viability analysis, business planning, management training and capacity building for maintaining quality

standards and market development required seed capital from government, donors and angel investors. With respect to funding growth and expansion phases, more suitable funding addressing the expanded infrastructural needs of the businesses was required.

One of the affected business owners explained that *“No for growth and expansion stages. More funds would have been suitable to solve the problems of slow growth (scale of production) and to set up the refrigeration and suitable heating sources”* (Respondent 130). Still another pointed out that funding was *“not appropriate because during decline, I used my salary whilst the profits were stuck at the Grain Marketing Board [GMB] due to late payment”* (Respondent 21).

With respect to timing of provision of funding, several business owners complained about the delays in loan approvals from banks and micro-financing institutions and the bureaucratic screening process for beneficiaries of government funding including contract farming arrangements. One business owner pointed out that:

“Not so. because loan application took long time to be approved and this delays the production. Also the periods of loan repayments were too short to the extent that the business production experiences challenges” (Respondent 104).

Another one highlighted the inappropriateness of funding arising from the structure and tenor of the funding facilities used. The business owner put it this way:

“Actually no, just because of the challenges that I faced during loan application. [The] period of loan repayment was too short hence the project experienced quick cash outflows before realising profits” (Respondent 167).

The lack of financing options was also cited as one of the major reasons why funding used was inappropriate. The lack of funding options on the market, coupled by the high cost of borrowing from banks and micro-financing institutions drove many business owners to rely heavily on internal sources of finance, mainly own savings, family support and retained income. This was aptly summarized by one business owner who said:

“No. some of the types of financing were used because there was no option of any other source of finance. The business was not able to avoid high interest

charges on the loans because of its inability to generate enough profit to retain the business” (Respondent 105).

This explanation was further supported by another business owner who indicated that:

“It was not. In some cases, the business relied on family savings just because the business was not able to go for bank loans. The time it relied on family savings the production was slowed due to poor finances” (Respondent 114).

Of those who regarded funding as appropriate, most of them pointed out that it was because their businesses did not require much funding as they were still at a small-scale, or they had all the funding requirements met at once in most cases by a donor, family member or through some contract financing arrangement. For instance, one business owner explained that:

“Yes, [It was appropriate] because there was too much time involved in planning phase so less problems were encountered and had been budgeted for” (Respondent 5). Another owner who was satisfied pointed out that *“Yes, because the finance was okay to suit all the needs for instance buying pesticides to control fall armyworm” (Respondent 121).* One of those who received block funding indicated that *“yes, because they gave me enough money to solve the business problems” (Respondent 123).*

6.3.2 Financiers’ assessment of appropriateness of funding used

The financing executives were also requested to explain their assessments of the appropriateness of funding used by agricultural SMMs. This assessment was necessary to provide and expert evaluation of the application of funding. It is important to note that while financiers offer funding advice to businesses, often the decision to seek the type of funding rests with the business owner. Therefore, the stage funding used by business owners can differ from what is considered by funding experts as the most appropriate.

From their assessments, a key emerging theme is the mediating role of funding advice. The extent to which business owners sought funding advice differentiated those who used appropriate from those who used inappropriate stage funding. Thus, the use of

funding and technical advice was positively associated with greater use of more suitable funding. Those who independently sought their funding without seeking funding and technical advice were viewed as using inappropriate stage funding. One of the financing executives pointed out that:

“Funding secured with the help of financiers are largely appropriate. However, internal sources used by those avoiding high cost of borrowing are both inappropriate and insufficient” (FE 2).

Another executive supported the assertion by saying:

“Funding sourced by the owners in consultation with financiers partly addresses the major problems to the extent that such funds are available and adequate. Internally-sourced funding however is largely inappropriate” (FE 3).

The financing executives also explained the inappropriateness of funding as arising from the funding gaps left by their funding policies and preferences. For instance, the lack of more suitable types of funding at critical stages such as inception and start-up forces the business owners to use available funding. This situation was highlighted by one of the executives who indicated that:

“Since most financial institutions do not fund green-field projects and especially start-up phases, owners resort to own sources of funding which are generally not suited to funding most of the life-cycle stage problems” (FE 9).

All the financing executives therefore agreed that funding availed by financiers was largely appropriate. However, due to the adverse economic environment (exchange rate, inflation, and high cost of borrowing, the owners resorted to cheaper sources of funding with instruments not well structured to address key stage problems

6.3.3 The adequacy and benefit from funding used

The adequacy of funding used at each stage is also a major factor in determining the survival and growth of a business. The stage funding for agricultural SMMEs need to be both suitable and adequate to support the development needs of a new business.

The SMME owners were asked whether funding used at each stage was adequate or not. The results are displayed in Table 6.8.

Table 6.8: Level of stage funding adequacy

Adequacy of funding used	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1. Not adequate	42	13,1	42	13,13
2. Adequate	278	86,9	320	100

Source: Author's calculations based on survey data

The majority of the business owners reported that funding used was not adequate (86.9 percent) with only 13.1 percent reporting funding to be adequate. This pointed to the existence of major funding gaps for the critical stages of the business life-cycle. The financing executives unanimously agreed that funding for agricultural SMMEs was inadequate. However, they provided different explanations for the inadequacy of such funding. These ranged from the predominant use of own funding by business owners, limited government funding and the withdrawal of multilateral and donor support.

Funding from banks and micro-finance is constrained for prudential reasons as well as the lack of co-financing facilities with international multilateral lenders that normally help to share the risk of funding such sectors. In addition, the challenges with the acceptability of 99-year leases and offer letters to the new landholders after the fast-track land reform means that the agricultural SMMEs cannot pledge their land as collateral security for bank finance. One of the financing executives summed up this challenge by saying:

“Funding is largely inadequate for agricultural SMMEs as there are facilities-based funding and private sector is struggling to fund agriculture due to 99-year lease agreements and offer letters not tradeable as collateral security” (FE 9).

Another pointed out the inadequacy of agricultural SMME funding especially for training and capacity building by saying:

“More funding is generally needed especially funding for training and capacity building and development, business planning and equipping the owners with agricultural project management best practices” (FE 11):

As a follow-up question to the level of adequacy, the entrepreneurs expressed on a 4-point Likert scale whether they *strongly disagreed, disagreed, agreed or strongly agreed* that they were able to adequately identify and meet the funding needs at all the stages in the business cycle. The results of analysis of their assessment of funding benefit are shown in Table 6.9.

Table 6.9: Expression of benefit from stage funding used

Benefited from Funding	Frequency	Percent	Cumulative	
			Frequency	Percent
1.Strongly disagree	29	9,1	29	9,06
2.Disagree	191	59,7	220	68,75
3.Agree	90	28,1	310	96,88
4.Strongly agree	10	3,1	320	100

Source: Author's calculations based on survey data

6.3.4 Critical funding gaps at the most problematic business stage

The entrepreneurs were requested to indicate the key problems at the most problematic stage of the business that required more appropriate funding. The identification of these problems by the business owners was important as it highlighted the critical funding gaps at the most challenging life-cycle stage. These results are presented in Table 6.10.

Table 6.10: Stage 2 problems requiring more appropriate stage funding

	Frequency	Percent	Cumulative	
			Frequency	Percent
Infrastructure, inputs and labour	161	50.5	161	50.5
Poor management systems	75	23,5	236	74.0
Unrealistic operational targets	41	12,9	277	86.9
Poor pricing	27	8,4	304	95.3
Enhancing cash-flows	15	4,7	319	100

Source: Author's calculations based on survey data

Whereas the setting up and ensuring survival was cited as the most problematic stage operationally, 8 of the 12 (66.7 percent) financing executives however identified the inception stage as the one with the greatest financing gap for the most critical activities. They attributed the funding gap for key activities such as feasibility and viability studies, business planning, training and capacity building to the fact that banks and micro-financiers do not fund the preliminary stage of business development. This

leaves only donors and government as the main financiers but offering limited funding when compared to the funding requirements. For the setting up and survival stage, infrastructure development, input procurement and market development were critical operational challenges with major funding gaps. One of the financing executives pointed out that:

“Capacity building, research and business planning at inception require more donor and government funding. Infrastructure development, input procurement as well as marketing development for stage 2” (FE 6).

6.4 Suggested best practice life-cycle financing

The fourth objective of the study sought to establish the funding sources that the agricultural SMME owners and financing executives suggested as funding at each stage. The business owners and the financing executives were required to identify what they considered as ideal funding at each stage. The reason for this enquiry was based on the need for the business owners to express what ideally they considered as most appropriate stage funding but which they might not have used given the constrained funding environment. This exposed the difference between what they actually used as discussed in Chapter Five and what they would ideally use in a more conducive financing environment.

The financing sources suggested by financing executives were meant to provide a more expert view on what type of funding should be used to fund agricultural SMMEs at each stage in Zimbabwe. The results of the enquiry were presented stage by stage.

6.4.1 Suggested agricultural SMME inception stage funding

With respect to the most suitable funding at the inception stage, the responses from the agricultural SMME owners (Figure 6.6) show that 50.9 percent considered own funding as the most ideal funding for inception stage. Donor funding (21.3 percent) and bank and micro-finance (17.5 percent) are the other types of funding that featured while private contract (7.8 percent) and government funding (2.5 percent) were least considered.

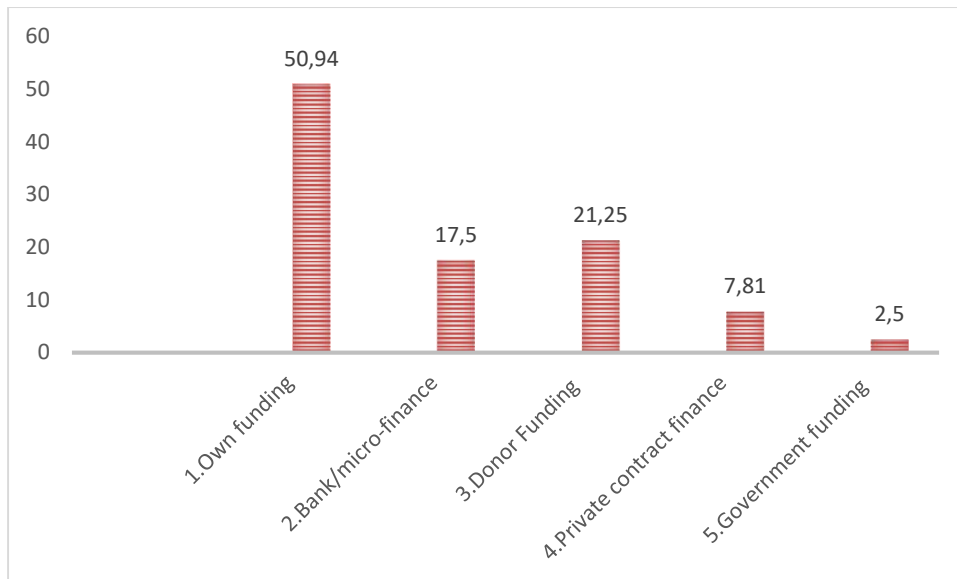


Figure 6.6: Percentage of owners suggesting a funding source for inception stage
Source: Author's computations based on survey data

Most business owners indicated that as much as possible own funding should be used to funding the development of the business concept and other preliminary planning work. Financing executives suggested the use of more government and donors should be up-scaled at this stage, but backed the suggestion with a different reason. They suggested more government grants, concessionary loans and donor funding since financial institutions do not finance the early phases for green field projects.

6.4.2 Suggested start-up stage funding

For the start-up and survival stage, 52.2 percent of the business owners suggested the use of bank and micro-financing. This was followed by use of own funding (20.9 percent), donor funding (16.9 percent) and private contract finance. The use of government funding was the least suggested at this stage with 0.3 percent of the business owners recommending its use (Figure 6.7).

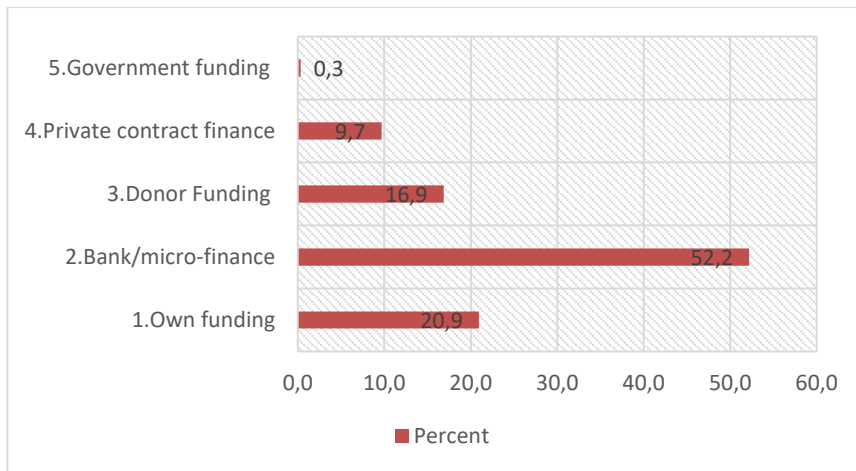


Figure 6.7: Suggested start-up funding
 Source: Author's computations based on survey data

Financing executives suggested that given that banks and micro-financing institutions do not fund this stage of the business life-cycle, government and donors should be engaged to provide more funding. The suggestion was against the background that banks and micro-financing institutions are not comfortable funding these businesses in the early stages when the risk of default is very high and trading record is not yet fully established. They therefore suggested that government and donor agencies play a more pivotal role particularly providing input and infrastructural funding facilities while venture capital should also be used to support development of the small agricultural ventures through this early stage.

6.4.3 The funding sources suggested for Growth stage

At the growth stage, 59 percent of the business owners suggested the use of bank and micro-financing. This was followed by use of private contract finance (17 percent), own funding (14 percent), donor funding (6 percent) and government contract finance (4 percent). The use of government funding was the least suggested at this stage (Figure 6.8). The majority of financing executives were of the view that agricultural SMME owners should explore the use of contract funding as this gives them assured markets. They should also use more micro-and bank finance at this stage especially through leasing/asset financing as well as venture capital funding to boost asset acquisition that support growth. The differences in the suggestions show that the best approach to life-cycle financing of agricultural SMMEs in a difficult environment like in Zimbabwe is a contest area. The suggestion by business owners reflect a desire to

see banks and micro-financiers offer more support for growth of their businesses. At the same time, financiers see contract financing as a better way to ensure secure markets for both inputs and produce. Given the security that contract finance offers, there are better prospects for growth is more SMMEs pursue contract financing arrangements.

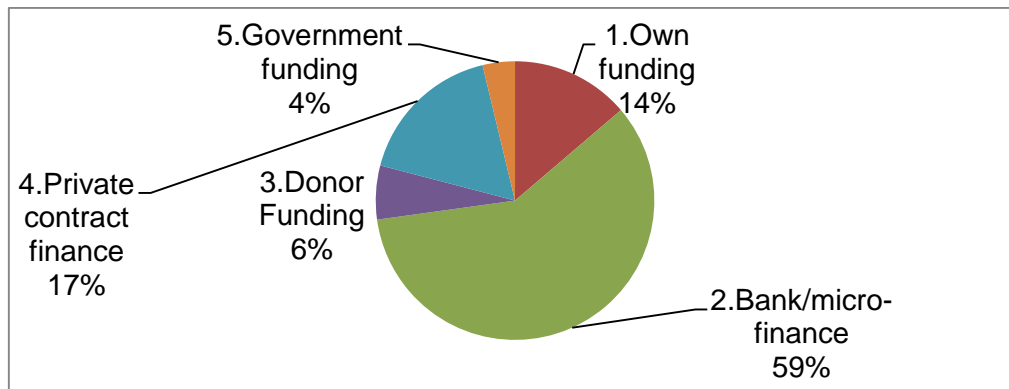


Figure 6.8: Suggested funding for growth stage
Author's computations based on survey data

Source:

6.4.4 Suggested funding for expansion stage



For the expansion stage, the use of bank and micro-financing was suggested by 49.7 percent of the business owners as the most suitable funding at that stage (Figure 6.9).

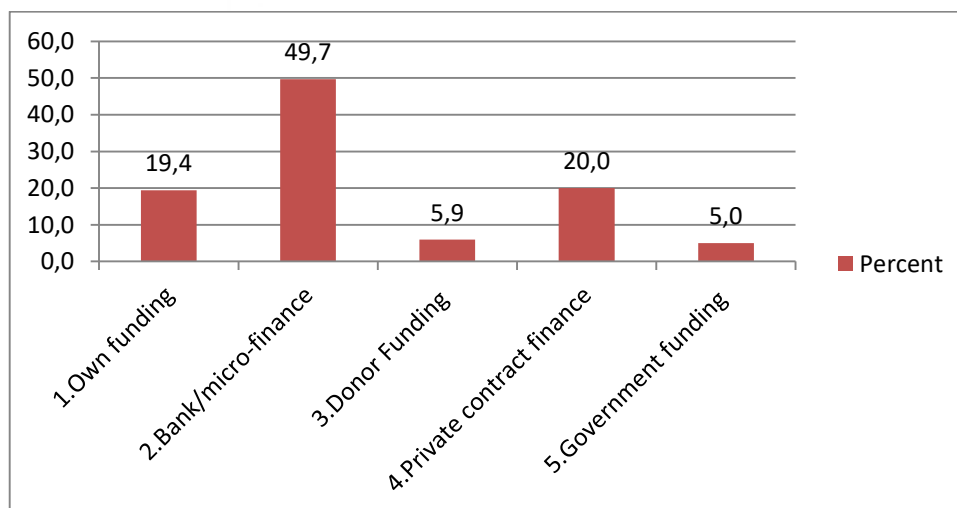


Figure 6.9: Funding suggested for expansion stage

Source: Author's computations based on survey data

This was followed by use of private contract finance (20 percent) as more private financing institutions were expected to be more comfortable providing funding to expanding small agricultural business ventures. Own funding (19.4 percent), donor

funding (5.9 percent) and government funding (5 percent) were suggested as ideal funding for expansion in that order. Financing executives indicated that agricultural SMME owners should ideally venture into contract farming finance, joint ventures or use lease finance for the acquisition of key assets needed to support business expansion. While joint ventures are quite useful especially in boosting the resource base for SMMEs, their effect in terms of diluting control is the reason why the financing method is often resisted. Their adoption can only increase with a positive change in the business culture to benefit from greater amount of pooled resources as opposed to sole proprietorship.

6.4.5 Funding suggested for maturity stage

In the case of maturity stage funding, own funding was considered most suitable funding by 45.3 percent of the agricultural SMME owners owing to the stability of cash-flows. This was followed by bank and micro-finance (42.1 percent) given the stable profitability that allows for external borrowing and private contract finance (8.1 percent). Donor funding (3.1%) and government funding (2.2 percent) were the funding sources considered least suitable at this stage (Table 6.11).

Table 6.11: Suggested funding for maturity stage

Suggested funding for maturity Stage	Frequency	Percent	Cumulative	Cumulative
			Frequency	Percent
Own savings/funding	145	45,3	145	45,3
Bank/micro-finance	132	41,3	277	86,6
Private Contract finance	26	8,1	303	94,7
Donor funding	10	3,1	313	97,8
Government funding	7	2,2	320	100

Source: Author's computation based on survey data

Financing executives considered bank and micro-financing as well as private contract finance as the most suitable types of funding at this stage. They cited the fact that at this stage, the business cash-flows are generally stable, hence matching one of the key considerations for external financiers including private contract farming financiers. Given the inflationary environment, the use of external funds to grow the business can be advantageous provided interest rates are not inflation-indexed. This can also free internal funds so that they can be used to fund other business commitments.

6.4.6 Funding suggested for decline stage

For the business decline stage, 43 percent of the business owners suggested use of bank and micro-finance while 30.6 percent suggested the use of own funding as the most ideal type of funding. Donor funding was suggested by 13.4 percent of the agricultural SMME owners while 8.8 percent considered private contract finance as the most suitable funding at this stage. Very few agricultural SMME owners (4.1 percent) recommended the use of government funding at the decline stage (Figure 6.10).

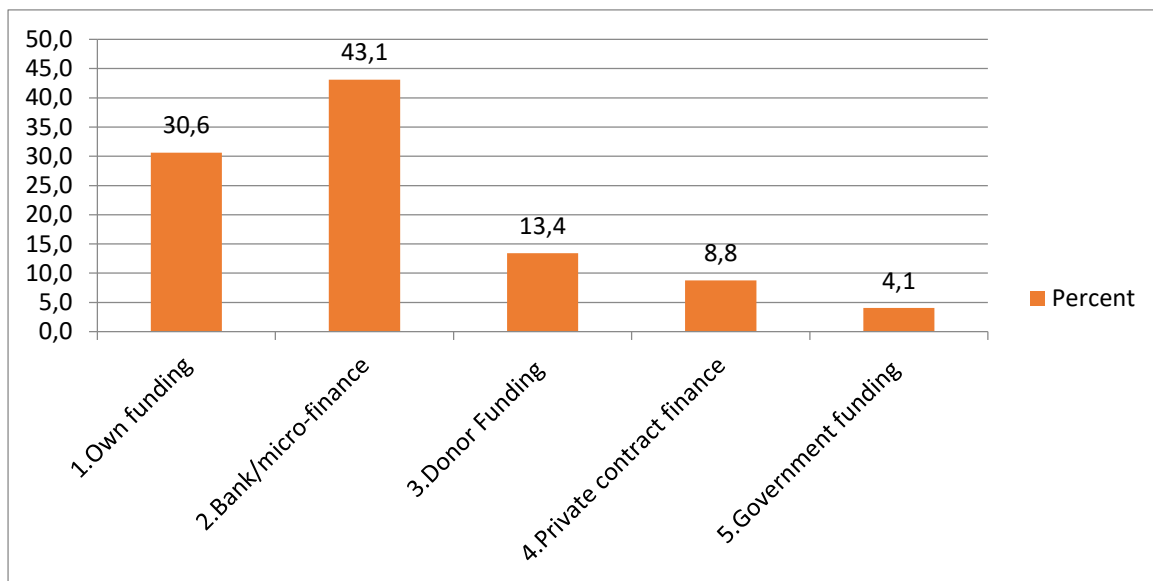


Figure 6.10: Funding suggested for decline stage

Source: Author's computation based on survey data

Financing executives considered partnerships as most ideal at this stage as they allowed for pooling resources, the use of leasing as a way of reducing infrastructure costs as well as government and donor funding to rescue ailing small agricultural business ventures. They considered these sources of funding as most ideal given that banks and micro-financiers seek to minimise their exposure to agricultural SMMEs where there is high default risk. The challenge with using partnerships, joint ventures, equity investments and such sources of funding is that they bring in new owners who may not be readily accepted by the original owners. Yet, at that critical stage, it is better to share control than to ultimately lose the business through dissolution.

6.5. Discussion of Results

This section discusses the results in view of the findings in empirical literature as well as what is suggested in theory on new venture financing. It focuses on the appropriateness and adequacy of life-cycle funding. The funding suggested by both SMME owners and financing executives are also discussed.

6.5.1 Appropriateness and adequacy of stage funding

Available literature on business finance especially for SMMEs highlights the growing need to ensure that these businesses receive appropriate financing for them to realise their acknowledged potential developmental impact on economies (IFC, 2013). In the Zimbabwean context, this is particularly important for agricultural SMMEs to realise the impact they are envisaged to register under the FTLRP and economic recovery in general.

An underlying assumption of the study was that funding for agricultural SMMEs was expected to vary from inception to decline, influenced by suitability considerations. This expectation was in line with both theory and findings in empirical literature (Weston and Brigham, 1970; OECD, 2018). The results of the study show a predominant use of internal funding at each of the four critical stages selected above. This is contrary to theoretical propositions from both life-cycle theories such as the financial life-cycle theory and capital structure theory especially the static-trade-off theory as discussed in Chapter Three. However, a key question was the appropriateness of such funding in addressing the typical stage problems.

Results of the study indicate that funding used was not appropriate at each stage of business development. Given the persistence in the use of internal funding sources throughout the stages, the inappropriateness of funding used is therefore hardly surprising. In addition, the short-term external funding mostly used was not suitable. Bureaucratic disbursements systems for government funding caused delays and poor timing of release of funding. Empirical literature on SMME financing observes that a number of factors lead to the use of inappropriate stage funding by the owners of these businesses. These include lack of financing knowledge (OECD, 2016), lack of appropriate funding options (Masiyandima et al, 2011), the high cost of market-based funding instruments available (Scoones et al, 2011). These are also some of the key factors cited by both agricultural SMME owners and financing executives.

While supply-side factors which limit the use of suitable funding instruments by SMMEs have been well investigated (Mutami,2015; Karedza et al,2014; African Centre for Biodiveristy,2015), the demand-side factors have not received same level of attention. The existence of critical funding gaps cited by both agricultural SMME owners and financing executives show that adequate and more appropriate funding is needed.

The stage-funding used by agricultural SMME owners was also inadequate. This was largely consistent with business funding in a constrained financing environment. Literature on agricultural SMME financing indicate the inadequacy of finance as a major impediment to the growth of the businesses (Ruete,2015; James,2015; Malaba,2014). The inadequacy is compounded by the negative perception of the agricultural sector and the agricultural SMMEs in particular as risky portfolio assets by financial institutions. The funding gap is most profound especially at the setting-up and ensuring survival stage where infrastructure, input procurement, training and capacity building are major problems. Other key stages suffering major funding gaps are growth, expansion and decline or business rescue. The combined effects of inadequate and unsuitable life-cycle funding at the most difficult stages explains why literature documents them as stages at which SMME mortality is the highest.

6.5.2 The funding suggested by SMME owners

Sections 6.4.1 to 6.4.6 above show the funding types or sources that agricultural SMME owners and financiers considered most suitable at each stage. While the agricultural SMME owners' consideration of internal funding as the most ideal funding source at the early stage is consistent with the pecking order and financial life-cycle theories, this was contrary to the study expectations. The SMME owners face some difficulties in raising adequate funding for such key inception activities such as conducting business feasibility and viability studies and business planning. As such cheap development finance such as government research grants, concessionary funding and donor funding are more ideal stage funding. This is because they involve no or little interest payment. Empirical literature cites these as ideal at this stage since they constitute patient and less risky capital to support new venture inception (Ruete,2015; OECD,2015).

Blending such funding with bank or micro-finance capital when funding risky business ventures such as agricultural SMMEs is considered a good way to reduce the risk borne by private capital offered by financing institutions (Ruete,2015). This increases private funders' appetite for funding these early stages of the micro, small to medium businesses ventures. The results of suggested inception stage funding by agricultural SMMEs therefore may be more reflective of their inability to secure external funding at this stage than the actual suitability of such funding at inception.

For the start-up and ensuring survival stage, government and donor funding were expected in this study to be identified as the most appropriate funding sources. However, agricultural SMME owners identified bank and micro-financing as the most suitable funding to be used. A relatively large number considered own funding as most appropriate source at this stage. On the contrary, financing executives considered government and donor funding as most ideal given that banks and micro-financing institutions regard this early stage as still too risky for them to invest depositors' funds. Findings from empirical studies show that government funding and donor funding are largely expected to play a major role at this stage in plugging the funding gap left by banks and micro-financiers (James,2015; Richard,2014). Government and donors are better placed to provide the necessary patient funding for provision of critical agricultural SMME infrastructure, inputs, training and capacity building (Government of Zimbabwe,2013; Ruete,2015).

With respect to the growth stage, the identification of bank and micro-financing as the most suitable funding sources was consistent with study expectations. The agricultural SMME owners were expected to consider bank and micro-finance as more appropriate in addressing the growth needs than own funding, government and donor funding. The expectation was theoretically based on the willingness and ability of banks and micro-financing institutions to provide funding for businesses that have established trading history and demonstrated growth potential unlike at the earlier stages.

Given the importance of contract finance in availing assured input supply and produce markets for growth-seeking agricultural SMMEs, this funding source was also expected to play a more prominent role. Empirical studies (Baumann,2015; Reserve Bank of Zimbabwe,2015) also show the greater role played by banks and micro-financiers in supporting growth of SMMEs. The majority of financing executives also

regarded private contract farming funding as one of the suitable funding sources at this stage mainly due to assured markets.

Considering the constrained agricultural SMME funding environment in Zimbabwe, particularly the low level of personal savings to anchor own-funding, agricultural SMME owners were expected to consider bank and micro-financing as most ideal for funding agricultural SMMEs. Therefore, the results were consistent with expectations. Furthermore, empirical literature cites the limited own equity as a major hindrance to business expansion (Karedza et al,2013). Thus, in terms of suitability, own funding is considered less appropriate when businesses seek funding for expansion. Hence in line with the financial life-cycle and pecking order theories small businesses are expected to consider as more suitable such external funding as bank, micro-finance and contract funding as they evolve into the later stages as compared to internal funding. Financing executives also identified bank and micro-finance but acknowledged the suitability of joint ventures and use lease finance for the acquisition of key assets needed to support business expansion.

The maturity stage is considered the stage that poses the least challenges in terms of managing and financing (Singer, Arreola and Amoros,2014; Weston and Brigham,1970). Given the stability of cash-flows as well as the need to reduce interest cost on external funding, agricultural SMME owners were expected to identify retained income as the most suitable source of funding at maturity stage. Results discussed above were therefore consistent with study expectations, the financial life-cycle theory of the firm as well as empirical evidence (Weston and Brigham,1970). While businesses at the later stages of development have greater ability to internally fund operations as well as secure more external funding, at maturity, both theory and empirical evidence show that the business owners considered retained income (retained profits and other incomes) as more suitable sources of funding. This could be due to the aversion of costly external finance.

Contrary to what agricultural SMME owners considered, financing executives regarded bank and micro-financing as well as private contract finance as the most suitable types of funding at this stage. This contrary view could be due to financing institutions seeing greater possibility of them funding the businesses assured by better loan repayment prospects. Also, they regard private contract financing as a source of

finance with the potential to strengthen business stability through tying down markets as well as avoiding over-stretching internal financial resources.

In the case of the business decline, the business owners were expected to identify partnerships, government as well as donor or angel investor funding as the most suitable sources of funding. This was based on the fact that at this stage, agricultural SMMEs struggle to secure sufficient banks and micro-financing owing to weak business position. However, results show that a large fraction of the sampled agricultural SMME owners actually suggested bank and micro-finance as the most ideal sources of funding along with own funding.

Empirical evidence show that businesses going through stressful periods often seek cheaper sources of funding mainly in the form of donor and government-sponsored business rescue funding facilities in addition to interest free-loans from family members and angel investors (James,2015; Ruete,2015; Wahab and Abdesamed,2012). The study results indicate that both donor and government funding were regarded as ideal by very few (4.1 percent) of the agricultural SMME owners.

These results imply that as much as possible, the business owners prefer using own funding and resort to using market-based funding as a last option given the limited nature of the role played by government and donor funding in Zimbabwe. Financing executives however considered partnerships, government and donor funding as the most ideal funding to rescue ailing small agricultural business ventures. Their consideration was given on the premise that at this stage, business owners should seek to minimise their exposure to interest-rate based finance and conserve internal resources as a strategy to turnaround the struggling businesses.

While the study results support theory and empirical evidence in some cases, there are cases in which findings were on the contrary. The latter cases may be attributed to the influence of the constrained business financing environment in Zimbabwe as well as the strong preference for own funding by agricultural SMME owners underpinned by the desire for independence in funding their business ventures.

6.6 CHAPTER SUMMARY

This chapter presented the results relating to the appropriateness of the funding used to address the main problems at each stage of the agricultural SMME life-cycle. The results of analysis of the stages considered the most problematic were presented. These were followed by the results of the funding used at each of the stages, and the appraisal of the suitability of such funding. These results were discussed in view of empirical literature findings and what is postulated in related theory. The main funding gaps were discussed together with the types of funding that both agricultural SMME owners and financing executives considered as most appropriate stage-funding. These results form the basis for the study conclusions and recommendations presented in the following chapter.



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CHAPTER SEVEN

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter presents the summary of the findings, conclusions drawn from the study, the policy recommendations that may improve life-cycle financing of agricultural SMMEs in Zimbabwe as well as some considerations for further research. Section 7.2 summarizes the key findings objective-by objective. The proposed life-cycle financing framework which addresses the fourth objective of the study is presented in this chapter. This framework is developed based on research findings and global best practices suggested in related literature. Section 7.3 outlines the main conclusions drawn from the study in response to the research questions raised. In section 7.4, the contributions of the study are presented. These are followed by the policy recommendations in light of the findings. The study concludes with recommendations for further studies that could explore aspects related to SMME life-cycle financing which are not addressed as a result of the scope and design of this study.

7.2 Summary of the study

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This section firstly summarizes the problem statement, objectives the methodology and the findings of the study. It then presents the proposed agricultural SMME life-cycle financing framework based on research findings, the financing context in Zimbabwe, the explanations in related theories and global best practices suggested in related literature. It also outlines some policy implications and concludes with recommendations for further research.

7.2.1 The problem, objectives, methodology

The important role played by SMMEs especially those in the agricultural sector is acknowledged. Despite this, they face acute funding shortage which constrain their development particularly in developing countries. In such a context, the owners have to efficiently and effectively utilize the limited funding they access to ensure that the touted impact of SMMEs in an economy is realized. Besides, access to funding, its inappropriate application also limits the development of SMMEs. Unlike on the supply-

side, very limited focus has been placed on how the demand-side factors affecting SMME funding could complement supply-side efforts to boost SMME development. The funding behaviour of the owners has to support the supply-side initiatives if the SMMEs are to survive and fulfil their envisaged role in the economy.

This study thus analysed the use of funding by the owners along the business life-cycle based on a six-stage life-cycle model. It further assessed the suitability of such funding used given the unique operational needs and challenges per stage as well as best practices. The specific objectives of the study were (i) to identify the level of knowledge that SMME owners have about the financing options available and which ones are mostly used, (ii) determine the use and suitability of life-cycle financing focusing on agricultural SMMEs, (iii) identify the best types of funding as suggested by both owners and financing executives and to (iv) suggest a life-cycle funding framework based on financing best practices for sector development.

A cross-sectional survey research design was used given the lack of accurate time-series data and it followed a mixed-methods approach. The study followed a mixed-methods approach. The owners or managers of agricultural SMMEs and the institutions providing funding constituted the two populations studied. The owners were sampled through a multiple-stage sampling strategy which combined, purposive, cluster, stratified and quota sampling given the wide distribution and differences in size the SMMEs. A final sample of 320 owners and managers participated while 12 main SMME financing institutions participated through their agricultural SMME portfolio officers.

Data were gathered from business owners through a semi-structured questionnaire while financing institutions responded to an administered semi-structured questionnaire. The unit of analysis was the business owner's use of funding along the business life-cycle. Frequency, binary logistic regression, Chi-Square tests of association and Odds-ratio analysis were the methods used for quantitative data analysis while Qualitative-Failure mode, effects and criticality analysis (Q-FMECA) and thematic analysis were for qualitative data.

7.2.2 Business characteristics and Owners awareness of funding sources

The agricultural SMMEs owners surveyed were engaged in a variety of business activities. The businesses differed in terms characteristics such as age, ownership structure, annual turnover, the total value of assets held, the number of full-time employees and business location. The business owners had moderate to fair amount of knowledge of funding options available on the market. Funding was largely unaffordable and its sourcing was negatively affected by a number of challenges faced depending on the business stage for which it was sourced. These challenges limited the scope for using appropriate funding at different stages of the business life-cycle.

7.2.3 Exhibited Life-cycle financing pattern of agricultural SMMEs

In terms of life-cycle funding, binary logistic regression analysis results show that business owners initially heavily relied on internal sources for inception and setting-up stages (stage 1 and 2). They shifted more towards external funding at growth and expansion stages (stage 3 and 4) before reverting to mainly relying on internal funding for maturity and decline stages (stage 5 and 6).

More specifically, the external funding sources used were mainly traditional bank and micro-finance loans, contract and donor funding in that order. Binary logistic regression analysis results of modelling funding use against a number of predictor variables at each stage further show different effects of the factors per stage. Use of stage funding varied markedly depending on a number of influential factors. These include firm and owner characteristics as well as stage specific problems. Firm characteristics include type of agricultural activity, business age, ownership, annual turnover, value of assets, the number of full-time employees and location of business activity. The influential owner characteristics were owner's awareness of funding options, use of funding advisory services, the views on stage specificity of funding, funding adequacy and benefit. A major factor relating to stage-specific problems was the ease with which the key stage problems could be identified and targeted for funding. Results show that most of the agricultural SMME owners could easily identify the major stage problems which formed the basis for the choice of stage funding.

7.2.4 Appropriateness of life-cycle financing

The appropriateness of funding used per stage was based on characterization of the business stages in terms of the key problems faced. This enabled the creation of a rank-order of the six stages from the most problematic stage to the least. The rank-order created through Q-FMECA analysis showed the setting up and survival stage (stage 2) as the most problematic stage followed by, growth, expansion, decline, inception and maturity in that order based on risk-priority analysis. Thematic analysis results for the main problematic stages show that funding used was not appropriate as it did not satisfactorily address all stage-problems. Heavy reliance on internal funding and other external funding not well-structured to match the needs and challenges at specific stages of business life-cycle was the major reason cited by both business owners and financing executives for inappropriateness of funding.

External funding used also tended to be more in the form of short-term loans as financiers operated on the short-end of the market due to economic instability and the need to ensure that depositors' funds were easily recovered. Contract finance from government often delayed in disbursements due to administrative challenges. For the most problematic stage (stage 2), the most under-funded needs were infrastructure, stock and stock feed purchase, procurement of inputs such as seed, fertilizers and chemicals for pests and disease control.

7.2.5 Suggested best practice life-cycle financing patterns

Thematic analysis results of the funding types that the business owners and financing executives suggested for each stage highlight the need for more developmental capital such as government seed capital and donor funding at the early stages (inception and setting-up stages) This was more imperative given that these stages were often not funded by commercial banks and micro-financiers in Zimbabwe. The adoption of more external financing instruments such as bank and micro-finance loans as well as private contract farming financing arrangements and partnerships were identified as most ideal for growth and expansion.

For maturity stage, while financing executives identified bank and micro-financing as most ideal, agricultural SMME owners considered retained income as most

appropriate funding source. This reflected their underlying inclination to independently finance themselves and avoid the high cost of borrowing as well as retain greater control of the business. For the decline stage, contrary to empirical evidence which show greater use of internal funding and concessionary funding, the business owners indicated that bank and micro-finance was the most ideal sources. This reflected on the fact that greater amount of funding could be sourced from banks and micro-financing institutions as opposed to relying on own funding and the limited government and donor funding available.

7.2.6 The proposed agricultural SMME Life-cycle financing framework

The fourth objective of the study sought to propose an agricultural SMME life-cycle financing framework. This section presents the proposed framework that could assist in improving the selection and use of funding by agricultural SMMEs owners to deal with specific business stage requirements. The development of this framework took into account three broad considerations. These are (i) the findings of this study regarding the observed stage-funding patterns, (ii) the funding environment, and (iii) the underlying theories, empirical evidence and the best practices on SMME life-cycle financing. The funnel diagram below (Figure 7.1) illustrates that the proposed life-cycle financing framework is a result of filtering the information from the three considerations combined.

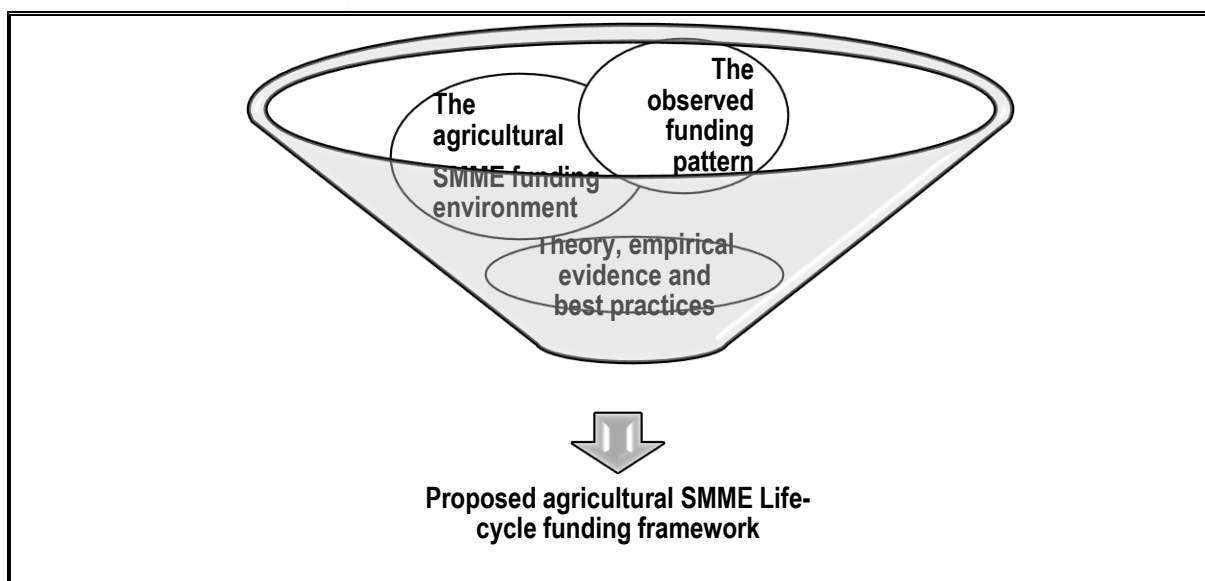


Figure 7.1: The SMME life-cycle funding framework development process

Source: Author's compilation based on study results

It shows that the framework is proposed while being mindful of the prevailing environment in which business owners seek and use the funding, the suggestions from theory and empirical studies as well as the financing patterns observed in this study. This approach to a life-cycle financing framework is important as it acknowledges the current financing patterns and practices but uses available information to propose a new funding approach within the financially constrained environment. This also assists in developing a framework that addresses the inadequacy in the current financing practices drawing lessons from empirical lessons as well as insight from theory.

The findings of this study regarding the observed stage-funding patterns were presented in Chapters Five and Six while the funding environment was described in Chapter Two. The suggestions from theories, empirical evidence and the best practices on SMME life-cycle financing were discussed in Chapter Three. Table 7.1 summarizes the main considerations upon which the proposed agricultural SMME life-cycle financing framework is based.



Table 7.1: The main considerations for the proposed agricultural SMME life-cycle financing framework

Stage	Findings from the study	Funding environment in Zimbabwe	Theory, empirical findings and funding best practices
1	Agricultural SMME owners mainly use of own funding; donor funding, bank and micro-finance; private contract and Government funding in that order	Financiers do not fund business inception stage. Limited availability of donor and government funding despite positive initiatives and policy statements SMMEs experience funding challenges especially for feasibility studies, business planning and capacity building	Financial life-cycle and pecking-order theories posit that new firms use internal sources at this stage. For prudential reasons, the financial capital constraint theory posit that market-based financiers do not offer credit to inception stage businesses. Empirical evidence in the main confirms these theories while best practices suggest the use of less risky government and donor funding as seed capital.
2	Agricultural SMME owners mainly use own funding; donor, private contract finance and government	There are low personal savings to support setting up and ensuring business survival. Financiers still not funding business start-ups Limited availability of government-sponsored input,	Financial life-cycle and pecking order theories posit that new firms use internal sources at this stage. Capital adequacy requirements as explained by the financial capital constraint theory restrict market-based financiers to prudential funding of agricultural SMMEs to

	funding in declining order.	infrastructural facilities and venture capital funding	<p>minimize risks and ensure capital retention.</p> <p>Empirical evidence generally confirms the theories while best practices suggest the need to use funding that addresses the input and infrastructure requirements at the delicate start up stage.</p>
3	Agricultural SMME owners markedly reduce reliance on own funding and increase bank and micro-finance, private contract funding and government funding.	<p>Bank and micro-finance institutions actively provide funding subject to prospective clients meeting strict loan qualification criteria.</p> <p>Many prospective agricultural SMME owners fail to raise sufficient collateral.</p> <p>Short-term financing facilities mainly offered due to the highly inflationary environment.</p> <p>Banks and micro-financiers are also increasingly offering new and innovative funding such as asset-backed funding facilities.</p> <p>There is increasing availability of contract financing facilities essential for securing markets at the growth stage</p>	<p>Financial life-cycle and pecking order theories posit that new firms shift from use of more internal sources to more of external funding as a result of growing capacity to repay from business proceeds at this stage.</p> <p>However, the debt-equity trade-off theory argues that the heavy reliance on internal funding at this stage could be a result of the need to retain control even though this comes at a cost in terms of limited growth and failure to exploit the growth benefits of using external debt as well as the tax-shield benefits from debt capital.</p> <p>Empirical evidence generally supports these theories while best practices suggest more use of bank and micro-finance to spur growth as opposed to relying more on internal funding.</p>
4	Agricultural SMME owners markedly reduce the use own funding and increase the use of bank and micro-financing, contract funding, donor funding and government funding for expanding businesses.	<p>Funding for business expansion generally is limited on the market as financiers prefer offering short-term finance owing to the hyper-inflationary conditions.</p> <p>However, contract finance arrangements are giving agricultural SMME owners the opportunity to expand operations buoyed by assured markets and guaranteed supply of inputs.</p> <p>Financiers are putting in place stricter loan approval criteria and monitoring mechanisms to ensure that cash-strapped</p>	<p>Financial life-cycle and pecking-order theories posit that new firms rely more on use of external sources at this stage buoyed by larger markets, increased profits and greater ability to repay. The principal agency theory posits that in the presence of adverse selection and moral hazards, agricultural SMMEs (agents) often misappropriate funding provided to support business expansion.</p> <p>Empirical evidence largely supports these theories while best practices suggest the use more innovative financing instruments and sources to support business expansion while using cheaper and more suitable types of funding.</p>

		<p>small business owners appropriately use the funding availed and not divert funding to other non-business uses. Funds diversion accounts for a high percentage of loan delinquency in tough economic times.</p>	
5	<p>Agricultural SMME owners mainly use own funding, micro-finance, private contract finance donor funding and government funding</p>	<p>The volatile macro-economic environment is making it difficult for agricultural SMMEs to reach maturity stage and benefit from stable cash-flows and markets. This lowers the levels of retained profits, an important source of funding at this stage.</p>	<p>Financial life-cycle and pecking order theories posit that new firms prefer more use of external sources at this stage since they would have stable financial cash-flows as well as established and mature markets that enable them to borrow more and cheaper funds externally, buoyed by their ability to pay as well as good credit rating. However, Kim and Suh (2009) observed that the greater internal funds generated may lead businesses to reduce the need for external funds and increase their reliance on own resources. Empirical evidence largely confirms these theory and best practices suggest the use of own resources in view of the need to limit the interest cost of borrowing. However, in some cases, well managed small businesses may leverage on their stable cash-flows to borrow long-term finance at lower interest rates.</p>
6	<p>Agricultural SMME owners mainly use own funding, bank and micro-finance, donor funding, private contract finance and government funding</p>	<p>Banks and micro-financiers are very selective and unwilling to fund declining businesses due to the slim chance of loan recovery in a volatile business environment Donors and government funding still very much limited in an environment where donor activity is restricted</p>	<p>Financial life-cycle and pecking order theories posit that new firms use internal sources at this stage. The principal-agency theory highlights that financiers as the principals are often wary of the possibility of diversion of funds especially where commitment of the business owner to the survival and growth of the business has not been fully ascertained. Empirical evidence generally confirms these theory regarding the use of more patient and business-rescue type of funding. Best practices suggest that</p>



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			while private financiers may finance takeovers or mergers in larger businesses, for small business entities, government and angel investors are more appropriate for offering rescue packages.
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Source: Author's compilation based on study results

As shown in Table 7.1 above, the observed pattern of funding at the inception stage in this study is that agricultural SMME owners mainly use of own funding, donor funding, bank and micro-finance, private contract and government funding in that order. While this pattern is a result of the business owners' overall funding considerations, the funding environment contributes a lot in shaping this pattern. Market-based financiers do not fund business inception stage as they consider this to be too risky in view of lack of tried and tested business models. There is limited availability of donor and government funding despite positive initiatives and policy statements by government advocating for greater public and private funding for agricultural SMMEs. As a result, agricultural SMMEs experience major funding challenges especially for feasibility studies, business planning and capacity building at this early stage.

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The observed funding pattern is against the background of financial life-cycle and pecking-order theories that posit that new firms use internal sources at this stage. In addition, the financial capital constraint theory posits that the need for market-based financiers to comply with prudential requirements restrict them in extending credit and upcoming SMMEs businesses are the major casualties (Fazzari et al,1988). Empirical evidence (for instance Menike,2015; Kim and Suh,2009) in the main confirms these theories while best practices suggest the use of less risky government and donor funding as seed capital. Therefore, the study proposes that rather than relying solely on internal funding, agricultural SMMEs could explore the use of venture capital, government and donor capacity building and research grant facilities to ensure that proper feasibility and viability studies are conducted prior to setting up the businesses. They need to actively engage potential providers of concessionary funds in order to get more suitable types of funding.

At the setting up and ensuring survival stage, the observed pattern in this study is that agricultural SMME owners still mainly use own funding; donor, private contract finance and government funding in that declining order. The funding environment is characterised by low personal savings which are grossly inadequate as potential investible funds needed to internally fund setting up and ensuring business survival. Market-based financiers largely do not fund this stage of the business citing the risks associated with lack of trading history and a proven business model as well as secure markets. There is limited availability of government-sponsored input, infrastructural funding facilities and the decline of venture capitalist activities compounds the funding problem.

Life-cycle financing theories (for instance, the financial life-cycle and pecking order theories) posit that new firms tend to use internal sources at this stage as they have not sufficiently built up capacity to borrow externally. On the other hand, capital adequacy requirements as explained by the financial capital constraint theory restrict market-based financiers to prudential funding of agricultural SMMEs to minimize risks and ensure capital retention. Empirical evidence (James, 2015; Reserve Bank of Zimbabwe, 2015) generally confirms the theories while best practices suggest the need to use funding that addresses the input and infrastructure requirements at the delicate start up stage. In view of the above and the need to ensure appropriate funding at this critical stage, the study proposes that agricultural SMMEs advocate for greater provision and use more government, donor and venture capital financing facilities. These could better address the input and infrastructure requirements at this stage at a relatively lower cost to agricultural SMMEs.

With respect to the observed pattern at the growth stage, agricultural SMME owners markedly reduce reliance on own funding and increase bank and micro-finance, private contract funding and government funding. However, own funding remains the biggest source of funding. The funding environment is such that bank and micro-finance institutions actively provide funding at this stage subject to prospective clients meeting strict loan qualification criteria. However, still many prospective and operating agricultural SMME owners fail to raise sufficient collateral to secure external funding from these institutions. The predominant provision of short-term financing facilities mainly offered due to the highly inflationary environment compounds the problem

despite the fact that banks and micro-financiers are also increasingly offering new and innovative funding such as asset-backed funding facilities. There is increasing availability of contract financing facilities essential for securing markets at the growth stage. This is in response to government's calls for private financiers to compliment budgetary allocations.

Relevant theoretical explanations for the use of funding have been offered by the financial life-cycle, pecking order and debt-equity trade off theories. The first two theories posit that new firms shift from use of more internal sources to more of external funding as a result of growing capacity to repay from business proceeds at this stage. The debt-equity trade-off theory however argues that a heavy reliance on internal funding at this stage could also result from the need to retain control even though this comes at a cost in terms of limited growth and failure to exploit the growth benefits of using external debt as well as the tax-shield benefits from debt capital.

Empirical evidence on financing for growth (Ackah and Vuvor,2011; Menike,2015) generally supports these theories while best practices suggest more use of bank and micro-financing to spur growth as opposed to relying more on internal funding. Based on the above considerations, the study proposes that agricultural SMME owners use order financing, leasing, infrastructure financing facilities and also enter into contract financing arrangements with offtake agreements with funders. Such types of funding are more appropriate for meeting the critical business needs. Contract financing and order financing especially enable the businesses to have secure markets as well as timeously meet the market needs in a difficult operating environment.

Financing for business expansion, especially in a turbulent environment as in Zimbabwe is a daunting task. This requires that the most suitable types of funding. The observed pattern of funding at this stage is that agricultural SMME owners further reduce the use own funding while increasing the use of bank and micro-financing, contract funding, donor funding and government funding for expanding businesses. Funding is limited on the market as financiers prefer offering short-term finance owing to the hyper-inflationary conditions (Fanta, Mutsonziwa, Berkowitz, Maposa, Motsomi and Khumalo,2017). However, contract finance arrangements are giving agricultural SMME owners the opportunity to expand operations buoyed by assured markets and

guaranteed supply of inputs. Financiers are putting in place stricter loan approval criteria and monitoring mechanisms to ensure that cash-strapped small business owners appropriately use the funding availed and not divert funding to other non-business uses. Funds diversion accounts for a high percentage of loan delinquency in tough economic times.

Financial life-cycle and pecking-order theories posit that new firms rely more on use of external sources at this stage buoyed by larger markets, increased profits and greater ability to repay. The principal-agency theory posits that, in the presence of adverse selection and moral hazards, agricultural SMMEs (agents) may misappropriate funding provided by financiers (the principals) specifically to support business expansion. Evidence from empirical studies (IFC,2014, Daskalakis, Jarvis and Schizas,2013; Lopez-Garcia and Sogorb-Mira,2008) relating to financing of business expansion largely supports these theories while best practices suggest the use of more innovative financing instruments and sources to support business expansion while using cheaper and more suitable types of funding.



In light of these vital observations, this study proposes that agricultural SMMEs owners may better realise their business expansion goals if they rely more on use of long-term finance, retained profits and asset –backed finance that facilitate business expansion. Where such funding is not readily available, the study proposes that rather than simply accepting the status quo, these business owners may need to actively engage policy makers and private financiers. This could ensure that more suitable business expansion funding facilities are made available.

The maturity stage of the business emerged as one of the easiest stages for business owners to navigate their businesses through. With respect to financing pattern, the owners mainly use own funding, micro-finance, private contract finance donor funding and government funding. While it should be relatively easy to finance this stage, the volatile macro-economic environment is making it difficult for agricultural SMMEs to reach maturity stage and benefit from stable cash-flows and mature markets. This lowers the levels of retained profits which typically constitute the largest source of funding at this stage for mature businesses wishing to reduce reliance on external funding.

The key theories cited above (financial life-cycle and pecking order) posit that new firms use more external sources than internal at this stage since they would have greater ability to repay and hence improved credit rating. Empirical evidence however largely contradicts theory since small businesses that manage to raise large internal resources tend to rely more on those internal funds than deciding to borrow. This means empirical evidence tends to suggest that there is greater preference for equity than debt as owners seek to retain control through reducing external debt (Fanta et al., 2017, Ackah and Vuvor, 2011) as well as the associated interest cost of borrowing. The study proposes that rather than reverting to heavy reliance of limited own funding, agricultural SMME owners could also negotiate with funders for more innovative long-term finance facilities; retained profits and sale of old equipment or non-core assets. This is important given that reliance on internal funds at this stage is not necessarily because they are adequate and most appropriate but merely as a result of the quest to retain control and minimize costs.

At the decline stage, the study proposes that agricultural SMME owners could explore the use of more venture capital, joint ventures or /partnerships, angel investor finance, instead of relying mainly on internal funding from own savings, sale of non-core assets and profit retention. This proposed framework is in contrast to the observed financing pattern whereby the owners mainly use own funding with a little bit of bank and micro-finance, donor funding, private contract finance and government funding. The reasons for the observed funding pattern are that banks and micro-financiers are very selective and unwilling to fund declining businesses due to the slim chance of loan recovery in a volatile business environment. In addition, donor and government funding are still very much limited in an environment where donor activity is restricted and government is unable to source adequate funding from its own revenues and off-shore lending institutions owing to mounting external debt arrears.

In theory, as posited by the financial life-cycle and pecking order theories, new firms use internal sources at this stage as they struggle to court private sector financiers. The principal-agency theory highlights that financiers, as principals, are often wary of the possibility of diversion of funds especially where commitment of the business owner to the survival and growth of the business has not been fully ascertained. Empirical evidence (Gulst and Maritz, 2011; Heard and Sibert, 2000) generally confirms

these theory regarding the use of limited internal funds where more patient and business-rescue type of funding are more ideal. Best practices suggest that while private financiers may finance takeovers or mergers in larger businesses, for small business entities, government and angel investors are more appropriate for offering rescue packages. Table 7.2 below provides a summary of suitable types of funding that agricultural SMMEs could use.

Table 7.2: Proposed Life-cycle financing framework

Life-cycle Stage	Suitable funding that could be used or scaled up at each stage in view of the findings.
1	Venture capital, capacity building finance facilities and research grants from government and donor agencies at this conceptualisation stage.
2	Venture capital, capacity building finance facilities and research and infrastructure grants from government and donor agencies at this stage and also advocate for greater provision of more appropriate types of funding by financiers especially to cover start-up costs.
3	Order finance, leasing finance, infrastructure finance, contract finance at this stage to enhance the chance of serving markets timeously and adequately and containing costs.
4	Long-term finance, retained profits and asset –backed finance that facilitate business expansion
5	Long-term finance; retained profits and sale of old equipment or non-core assets.
6	Venture capital, joint venture/partnerships, angel investor finance; Sale of non-core assets and profit retention

Source: Author’s compilation based on study results

They could also proactively advocate for greater provision by financial institutions and other development agencies to enable them to realize the expected contribution to the recovery of the agricultural sector in Zimbabwe.

7.3 Study conclusions

The study makes the following conclusions based on the survey results relating to each of the four research questions. The first question pertained to the level of awareness of the main sources and instruments for financing agricultural SMMEs that are available and mostly used by owners in Zimbabwe. The study concludes that agricultural SMME owners surveyed had moderate to fair amount of knowledge or level of awareness of sources and instruments available on the market for financing their activities. Of the types of funding available, besides internal (mainly own and family) funding, traditional bank loans were the other major type of financing mostly used. The majority who found funding to be affordable invariably were users of internal

funding while those who tried to source external funding experienced major challenges ranging from high cost of borrowing, high collateral demands to their own lack of adequate own equity to attract significant external funding. The challenges faced in sourcing funding negatively affected the owners' ability to source appropriate funding for their business, often relying on what was available.

The second research question sought to establish the main sources and instruments that agricultural SMME owners used at each stage of the business life-cycle. The study initially used a binary approach where funding used was either internally or externally sourced. The conclusion of the study is that along the business life-cycle, the owners predominantly relied on internal sources of funding from inception to setting stage. At growth and expansion stages, the business owners markedly increased their use of external funding though internal funding was still the main source.

At the typically later stages (maturity and decline), the business owners reverted to predominant usage of internal finance. In terms of the break-down of the typically used external funding, bank and micro-finance loans, contract and donor funding were typically used in that order especially at growth and expansion stages. While the use of funding at each stage was expected to vary, the influence of the firm and owner factors on the use of funding options had different levels of significance at each stage. Of these factors, business activity and use of funding advice significantly influenced the use of funding types throughout all the stages of the business life-cycle. This was shown by the results of binary logistic regression analysis models run for each stage.

The third research question essentially checked on the appropriateness of the types of funding or options used at each stage. This was assessed against the background of the identified main problematic stages and the specific key problems typically causing the greatest challenge per stage. The study concludes that based on Qualitative-FMECA analysis conducted in the absence of quality quantitative failure rate data, the most problematic stage is the setting up and ensuring survival (stage 2), followed by decline, expansion and growth stages. The inception and maturity stages are the least challenging stages.

The funding typically used at each of these stages are inappropriate given that majority of the owners relied heavily on internal sources of funding as a result of the challenges with high cost of borrowing, lack of collateral security and inadequate own equity. The greatest funding gaps at stage 2 are for infrastructure and inputs requirements. The funding available did not benefit the businesses as the funds were either short-term instead of long term, delayed in disbursements due to bureaucratic and stringent approval systems especially or were inadequate for the attendant needs.

With respect to the last research question relating to the best practice financing instruments and sources that may be used, the study concludes at that at inception more of venture capital, donor and government-sponsored capacity building and research facilities and grants could be used. This is because of such types of funding are more patient, and when they are provided, they tend to crowd-in more private sector funding and enable risk-sharing. This further increases the chance of more otherwise risky businesses being successfully funded and operationalised.

At the setting up and ensuring survival stage (Stage 2) more government-sponsored Infrastructure facilities including input finance schemes and capacity building funding are more appropriate given that the majority of business owners struggle to raise enough internal funding to guarantee smooth business take-off. With respect to funding at the growth stage, given the nature of the challenges faced when trying to quickly service markets in a volatile business operating environment, order financing facilities, infrastructure finance, leasing and contract finance could better address the operational challenges that are hindering growth of agricultural SMMEs. The expansion of agricultural SMMEs is also stifled by the use of short-term external finance and internal funding. Hence, long term funding including asset-backed funding facilities and retained earnings are more appropriate types of funding under the prevailing conditions. In the case of business maturity, the study concludes that long-term finance, retained profits and sale of non-core equipment could greatly assist the businesses and minimize short-term borrowing that is costly. Lastly, the study concludes that when faced with the prospects of business decline, the best funding approach could be to negotiate for venture capital injection and advisory services, enter into joint ventures or partnerships, court angel investors, sale non-core assets as well as plough back profits.

7.4 Contributions of the study

This study recognizes the evidence from prior studies on life-cycle financing of SMMEs (for instance, Kim and Suh,2009; Myers and Majluf,1984 and Weston and Brigham,1970). It however contributes to literature on demand-side financing practices and provides a life-cycle financing framework to ensure that suitable funding is used at each stage. The bulk of available literature places greater emphasis on assisting financiers in availing and improving SMMEs' access to funding. This study responds to the growing call to also investigate the demand-sides at country-level. It goes beyond access to finance to focus on enhancing appropriate use of the limited funding sourced.

The study uses a new set of cross-sectional determinants of SMME financing (business activity, age, ownership, turnover, asset value, number of full-time employees, business location, knowledge of funding options, use of funding advice, specificity of stage funding, funding adequacy, funding benefit and problem identity). Prior studies mainly identified firm size, age, profitability, asset size (for instance, Myers and Majluf,1984; Weston and Brigham,1970; Menike,2015). These prior analyses without the additional predictors did not fully explain life-cycle financing in financially constrained contexts like Zimbabwe.

The existing literature on the demand-side of SMME finance is concentrated on firm and owner characteristics and firm characteristics as major determinants of access to finance. There is however a considerably big gap in empirical SMME literature since there is limited focus on the actual pattern of use of the accessed finance by small-scale entrepreneurs. This study contributes towards filling that literature gap by assessing the use of funding at each life-cycle stage as influenced by the identified factors.

It also provides baseline survey information which may be vital for research-based policy interventions in the areas highlighted above. Most related studies on SMME life-cycle focus on business strategies at each stage without considering the use of the most suitable financing necessary for high developmental impact in a constrained funding environment. To enhance an understanding of challenges faced by agricultural SMMEs, the study proposes the use of Qualitative Failure Modes, Effects

and Criticality Analysis (Q-FMECA) as a risk analysis tool to determine the risk profiles of the life-cycle stages. In addition, agricultural SMME owners' financing practices could be improved by using Q-FMECA as a basis for appropriate life-cycle financing of their businesses.

7.5 Policy implications

This section discusses the policy implications of the study arising from the findings discussed in Chapters Five and Six above. The policy implications relate to the results of the study with regards to specific topical aspects that addressed each of the four research questions. They are aimed at guiding policymakers and support agencies in their efforts to improve the way agricultural SMMEs owners finance their businesses.

Whilst agricultural SMMEs are expected to contribute towards improvement in macroeconomic targets such as increased agricultural sector output, growth in gross domestic product and employment creation, ultimately the responsibility for appropriate funding lies with their owners. The detailed findings in response to the four research questions highlight key policy implications and measures for improving agricultural SMME financing in Zimbabwe and similar contexts. Table 7.3 summarizes the suggested policy measures that agricultural SMME support agencies (public and private) may need to be taken or at least scaled-up to boost agricultural SMME life-cycle funding. The adoption of such measures may assist in effectively prioritizing critical stage funding to achieve greatest possible developmental impact given the constrained SMME funding environment in Zimbabwe.

Table 7.3: Key research findings and recommended policy measures.

	Research finding	Recommended Policy Measure (s)
1	SMME owners' have moderate to fair level of awareness of funding sources	<i>Government and agricultural SMME development support agencies could boost agricultural SMME owners' awareness of funding sources and instruments available through broad based financial education programmes with specific focus on funding for agricultural SMMEs</i>
2	Internal and traditional bank and micro-	<i>Government and support agencies could promote the use of a broader range of funding sources by agricultural SMMEs through availing such</i>

	finance funding mostly used	<i>facilities and promoting development of new innovative instruments that address the needs of agricultural SMMEs.</i>
3	High cost of external agricultural SMME funding	<i>Government and support agencies could strengthen agricultural SMMEs' position when lobbying markets to improve on provision of affordable funding instruments. This could include measures to improve the features of 99-year lease agreements to make them readily tradable and acceptable as collateral security.</i>
4	Inception stage funded by own sources	<i>Government and support agencies could train agricultural SMMEs to negotiate with financing institutions providing seed, research and capacity building funding facilities. They could work together to develop and promote the use of hybrid financial products that promote risk sharing between public and private funders. This could incentivise private funders while reducing borrowing costs.</i>
5	Set-up and survival stage largely funded from own sources	<i>Government and support agencies could enhance agricultural SMMEs access to infrastructure support and timeous acquisition of adequate start-up resources and inputs through resolving disbursements delays The policy measures could also target up-scaling the usage of infrastructure support and acquisition of adequate start-up resources and inputs by agricultural SMME owners.</i>
6	Increased use of bank/micro-finance and contract funding at growth stage	<i>Government and private sector agricultural SMME support agencies could develop policy measures that ensure agricultural SMMEs are able to use the right type of funding for growth. This could ensure that the business owners use funding facilities that go beyond funding farm inputs and production infrastructure to cover market and marketing development and capacity building for quality control and cost control.</i>
7	Increased use of external funding at expansion stage	<i>Government, working with other support agencies could therefore promote the use of suitable funding facilities that enable agricultural SMMEs to expand and move beyond subsistence level to contribute meaningfully to the agricultural sector and economy as a whole.</i> <i>Government could actively promote public and private contract farming financing among agricultural SMME owners.</i> <i>This could include broadening the range of agricultural activities in which private and public contract farming financing arrangements and toll milling are used beyond the traditional crops such as maize, tobacco, soya bean and cotton.</i> <i>The government could also engage agricultural SMMEs to pursue options of joint venture financing to expand the scale of their operations.</i>
8	Maturity stage largely funded internally	<i>Government could still assist agricultural SMMEs particularly by building their capacity to consolidate and maintain their market positions.</i>

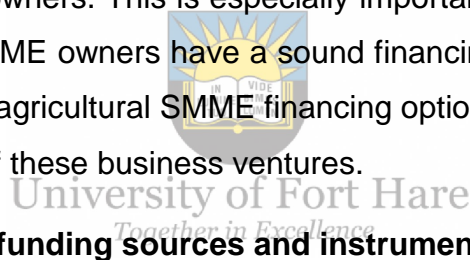
		<p><i>This requires that they could access other types of funding beyond relying on internal funding only.</i></p> <p><i>One such measure is to encourage agricultural SMMEs to enter into marketing or off-take agreements with major customers or contractors so that both their markets and sources of funding are stabilized.</i></p>
9	Decline stage mainly funded from internal sources	<p><i>Government and support agencies could actively assist agricultural SMMEs facing decline by putting in place policy measures promote the uptake of other financing arrangements.</i></p> <p><i>This includes promoting the use of joint ventures and partnerships, mergers and acquisitions, negotiating with venture capitalists, consulting agricultural SMME financial and advisory services providers.</i></p>
10	Limited benefit from funding used	<p><i>Government and other support agencies could roll out financial education and training programs for agricultural SMMEs so that they understand structuring of funding facilities as well as the risks embedded in them for them to derive maximum benefit from the facilities secured.</i></p> <p><i>Government in consultation with key stakeholders could enhance the benefit from funding by put in place policy measures ensuring that funding provided is suitable and is used specifically for addressing the challenges contributing to business decline.</i></p> <p><i>The measures could include enhancing the design of funding schemes for specific agricultural SMME needs, timeous disbursement systems, curbing misuse of funding facilities, monitoring and closing loopholes that permit side-marketing of contracted produce.</i></p> <p><i>Policy measures could promote continuous engagement with agricultural SMME owners supported to keep their activities in line with the noble goal of fulfilling the aspirations of government and supporting agencies with respect to role of agricultural SMMEs in Zimbabwe.</i></p>
11	Easy detection of key stage Problems	<p><i>Government and other support agencies could devise measures that enhance the capacity of agricultural SMME owners to undertake risk analysis such as failure, modes effect and criticality analysis as a guide businesses in sourcing funding and prioritise the funding of key problems at each stage.</i></p>

Source: Author's compilation based on study results

Given that the study focuses on the demand-side of agricultural SMME funding, the policy measures suggested relate more to what policymakers and support agencies could do to support the use of appropriate funding sources and instruments by the business owners.

7.5.1 Increasing the level of awareness of funding sources

The level of awareness of funding sources and instruments available on the market that agricultural SMME owners plays an important role in determining the use of appropriate funding. In this study, agricultural SMMEs were found to have moderate to fair amount of knowledge of available funding options. The level of funding knowledge was also found to significantly influence the selection and use of funding at different stages in the life-cycle of a business. Globally, there is growing research interest in the level of financial education that SMME owners have as an important predictor of use of appropriate funding. For instance, the OECD is engaging national governments to role out national programmes on improving financial awareness and education among aspiring and existing entrepreneurs (OECD,2015;2017). Thus, the government in consultation with other SMME support agencies could also put in place measures to boost awareness of funding sources and instruments available and used by agricultural SMME owners. This is especially important as not all prospective and existing agricultural SMME owners have a sound financing background. At the same time, the knowledge of agricultural SMME financing options is one of the key pillars to appropriate financing of these business ventures.



7.5.2 Diversifying the funding sources and instruments mostly used

The study established that majority of the business owners rely on internal sources of funding and to a limited extent, external finance in the form of traditional bank and micro-finance. Globally, the over reliance on traditional funding has led to growing research interest in measures to widen the range of financing sources and instruments that are used by SMMEs owners (OECD,2018; IFC,2011). In the Zimbabwean context, the government, working with private financiers could adopt policy measures that broaden the range of funding sources that agricultural SMMEs mostly use. Such measures could include developing new financing instruments or upscaling the uptake of more tailor financing facilities made to meet the specific needs of this subsector.

7.5.3 Improving affordability of agricultural SMME funding

One of the key challenges encountered by agricultural SMME owners is the unaffordability of external finance compounded by the exorbitant collateral demands

by banks and micro-financiers. Unaffordability of external finance drives agricultural SMMEs owners to use inappropriate but more readily accessible types of funding such as limited own savings and retained profits.

It is acknowledged that the unaffordability of external funding has to do with the challenging macro-economic context. However, agricultural SMME owners could play a more active role in lobbying for financiers to be innovative in the provision of the funding facilities and instruments. This could only be done if they are adequately knowledgeable about their funding requirements. Such knowledge could assist them when engaging financiers so that financial instruments are structured and made affordable while adequately meeting agricultural SMME requirements. Policy-makers therefore could equip agricultural SMME owners by putting in place policy measures that empower the business owners to actively engage financiers based on sound financial knowledge. This active engagement rather than passive acceptance of what is provided leads to improved markets and provision of affordable funding instruments.

Besides addressing the high cost of external borrowing, government and support agencies could capacitate agricultural SMMEs by resolving the collateral security challenges faced (Ruete,2015). Policy measures could ensure that landholdings by smallholder farmers in newly resettled areas could be acceptable as collateral security. Such measures could include promoting greater and better engagement with financiers on improving the features of the 99-year leases granted by government. This could make them readily acceptable to banks and other private funders and help remove a major barrier to sourcing and using suitable external funding.

7.5.4 Improving usage of appropriate inception funding

The sourcing and use of suitable finance at inception stage poses great challenges for agricultural SMME owners. The study shows that agricultural SMME owners predominantly use own funding to finance such critical inception stage activities as feasibility and viability studies, business planning, crop and animal research. The lack of suitable and affordable inception stage funding is a major determinant of business early stage-failure. Banks and other market-based financiers do not fund this stage while funding from donors and angel investors is generally limited. Inasmuch as these challenges characterise the funding environment, agricultural SMMEs and support

agencies could actively seek ways to address the problem of using inappropriate inception stage funding.

Since best practices show that inception stage requirements patient, seed and developmental capital ((Varga and Spiczki, 2015), more could be done in Zimbabwe to ensure that funding for this critical stage is adequately provided and used. Thus policymakers could advocate on behalf of agricultural SMMEs for the provision of more hybrid finance facilities whereby funding from public sources is combined with private capital in risk-sharing arrangements. The public or concessionary funds component could make funding more affordable as compared to when all funds are sourced from the market. In addition, policy makers could actively put in place support mechanisms that boost the capacity of agricultural SMME owners to conduct feasibility and viability studies and business planning. The ability to draft funding proposals at this stage is an important determinant for securing the right type of funding and highlighted by financing executives. Policy measures could therefore target capacity building amongst agricultural SMME owners in drafting research grant proposals. Such measures could ultimately improve the use of the suitable funding at this business formative stage.



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7.5.5. Improving funding for Start-up and survival stage

The study finds that this stage is regarded as the most problematic stage for business owners and managers to navigate through. This finding is consistent with observations in literature on entrepreneurship which indicate that most SMMEs fail to develop beyond this stage (Singer, Arreola and Amoros,2013; Global Entrepreneurship Institute,2016). As a result, it poses the greatest threat to business survival and growth. At this stage, critical requirements include adequate infrastructure such as land, housing, implements, power and water supply and inputs like crop and animal health chemicals, fertilizers and seed. Due to the shortage of suitable funding facilities for these requirements, agricultural SMME owners struggle to get past this stage. Financing these requirements predominantly through internal funding is both inappropriate and inadequate. Hence, government working in consultation with support agencies could boost their support by adopting policy measures that increase the supply of targeted funding for these requirements. The policy measures could also

target up-scaling the usage of infrastructure support and acquisition of adequate start-up resources and inputs by agricultural SMME owners.

7.5.6 Enhancing the use of suitable funding for growth

As is acknowledged in finance literature, certain types of funding are more suitable for use at specific stages of business development (OECD,2018). This equally applies for funding for the growth stage of the business. The business environment has contributed immensely to the challenges faced by agricultural SMMEs owners when promoting growth of their businesses. However, the types of funding used have also had a huge constraining impact. The finding of the study is that agricultural SMME owners typically rely on internal funding with some notable increase in external funding at this stage. Internal funding cannot be relied up for financing business growth since for most of the owners, such funding is severely limited. The suitability of funding used depends on the key operational challenges identified at this stage.

The entrepreneurs have to further boost their infrastructure beyond the level required for start-up and they have to increase and secure their markets including having the necessary transport and communication systems to effectively service markets. In literature, access to and use of suitable funding is also highlighted as critical in supporting SMME growth. Therefore, government and other support agencies could develop policy measures that ensure agricultural SMMEs are able to use the right type of funding for growth. This could ensure that the business owners use funding facilities that go beyond funding farm inputs and production infrastructure to cover market and marketing development and capacity building for quality control and cost control.

7.5.7 Improving use of appropriate funding for business expansion

While the government pins its hope on agricultural SMMEs to plug the void left by the decline in large-scale commercial agriculture and related agro-processing industries, the realisation of that hope rests on appropriate funding. This is especially the case with respect to funding businesses beyond subsistence level. The finding in this study shows that despite the efforts to broaden to range of funding sources and instruments used, the business owners still heavily rely on internal sources of funding. This is contrary to key theoretical propositions (for instance Weston and Brigham,1970; Myers

and Maljuf,1984). Such funding is both grossly inadequate and not suitable especially for meeting long-term development needs of the business. These needs include procuring agro-processing plants, additional land purchases and development, delivery vehicles, opening new operational sites or branches, irrigation infrastructure and farm machinery. The other main types of funding used include short-term bank and micro-finance loans (whose tenor do not match the requirements) and contract farming finance which is not yet fully embraced by both suppliers and agricultural SMMEs.

To address this problem, government working with other support agencies could therefore promote the use of suitable funding facilities that enable agricultural SMMEs to expand and move beyond subsistence level to contribute meaningfully to the agricultural sector and economy as a whole. Particularly, government could actively promote public and private contract farming financing among agricultural SMME owners. This could include broadening the range of agricultural activities in which private and public contract farming financing arrangements and toll milling are used beyond the traditional crops such as maize, tobacco, soya bean and cotton. The government could also engage agricultural SMMEs to pursue options of joint venture financing to expand the scale of their operations., some of the SMMEs are too small and their prospects of expanding as stand-alone entities and contribute more to the economy are non-existent despite government still looking up to them to have greater impact. (Zimbabwe Revenue Authority, 2014)

7.5.8 Up-scaling the use of appropriate funding at maturity stage

Agricultural SMMEs struggle to reach maturity stage. Ideally, at this stage, business owners should be having a comfortable situation where they have two healthy options. They may choose to use their internal funds (retained profits, other business income and sale of non-core assets as well as additional equity contributions by the owners) or use the healthy cash position to attract external funding. The latter option becomes possible as such businesses' credit ratings improve enabling them to source more external funding at lower cost. Inasmuch as firm owners who wish to retain control would prefer the first option, the use of external funding always enhances the prospects of more rapid business growth, expansion and consolidation of market position as explained by Modigliani and Miller (1963). The study finds that at this stage,

there is heavy reliance on internal funding. Given the challenging macro-economic environment, this is understandable. However, government could still assist agricultural SMMEs particularly by building their capacity to consolidate and maintain their market positions. This requires that they could access other types of funding beyond relying on internal funding only. For instance, agricultural SMMEs could be encouraged to enter into marketing or offtake agreements with major customers or contractors so that both their markets and sources of funding are stabilized.

7.5.9 Promoting the use of suitable funding decline stage

Business decline is a result of a combination of factors. These could be broadly divided into internal and external factors. Internal factors include firm and owner-related characteristics whereby firm factors are business model, type of product, technology and capacity to service markets. Owner-related factors include the management style, equity contribution and commitment to the business, level of education and networking skills. The external factors include all the macro-environmental changes that may negatively impact business performance.

When considered together, all these factors ultimately affect the financing approach and instruments used by the business owner. This study finds that business decline stage ranks as the second most problematic stage among the owners surveyed. Most of the contributing factors cited relate to the challenges faced in a difficult macro-environment. These include high pricing for products and inputs, unstable and eventual loss of markets, high operational costs and declining competitiveness.

In difficult times such as the decline phase, relying mainly on internal funding is not enough (Menike,2015). Government and support agencies could actively assist agricultural SMMEs facing decline by putting in place policy measures that promote the uptake of other financing arrangements. This includes promoting the use of joint ventures and partnerships, mergers and acquisitions, negotiating with venture capitalists, consulting agricultural SMME financial and advisory services providers. Whilst some of the measures may lead to the businesses changing form and ownership, at least the financing arrangements that come with them guarantee business activity continuity instead of dissolution.

7.5.10 Enhancing benefit from agricultural SMME funding

One of the key challenges with the existing financing arrangements is that some of the types of funding offered and used by agricultural SMME owners are not benefiting their enterprises. A key finding of this study is that a significant number of agricultural SMMEs do not benefit from external funding sourced, hence they resort to internal funding. Two reasons account for this. Firstly, the design and disbursement of some types of funding, for instance, contract farming financing under Command Agriculture are not consistent with the requirements by the targeted small-scale farmers. The design aspects relate to the beneficiaries covered and the amount of support involved. For these farmers, the support has focused on key grain cereals mainly maize with tobacco as the main cash crop. Even in these cases, funding has often been inadequate and further worsened by delayed disbursement. In other cases, targeted beneficiaries have complained about receiving expired inputs such as crop chemicals. This has led to others withdrawing from the scheme.

The second challenge is whereby targeted beneficiaries misuse the support provided particularly by government but also in some cases by private contractors, financiers and donors. Reports of decline of business and ultimate closure arising from diversion of financial and input support as well as side-marketing of produce have been made. This principal-agency problem as explained by Jensen and Meckling (1976) has contributed to many agricultural SMMEs not benefiting fully from funding and other input –support schemes provided by all kinds of funders. As such, measures could be put in place by government in consultation with key stakeholders to enhance the benefit from funding and other support schemes for the targeted agricultural SMMEs. This could ensure that funding provided is suitable and is used specifically for addressing the challenges contributing to business decline.

The measures could include enhancing the design of funding schemes for specific agricultural SMME needs, timeous disbursement systems, curbing misuse of funding facilities, monitoring and closing loopholes that permit side-marketing of contracted produce. In addition, policy measures could further target at continuous engagement with agricultural SMME owners supported to keep their activities in line with the noble goal boosting the contribution of small-scale agriculture and agro-industries to the national economy.

7.5.11 Improving the use of risk analysis as a basis for suitable stage funding

The use of inappropriate types of funding for particular business life-cycle stages results from challenges in securing the right types of funding as well as from lack of appreciation of the specific key funding requirements. The effects of the challenges in sourcing funding and the requisite policy measures have been documented (for instance, Karedza et al,2014; Mutami,2015). However, measures need to be taken to enhance the use of risk analysis at each stage as the basis for determining suitable funding. The study finds that agricultural SMMEs are quite able to detect the main problems encountered at each stage. However, there is no clear evidence that proper risk analysis is used as a basis for securing and using appropriate funding.

In view of the above, government and other support agencies could devise measures that enhance the capacity of agricultural SMME owners to undertake risk analysis such as failure, modes effect and criticality analysis. The results of such analysis could then guide businesses in sourcing funding and prioritise the funding of key problems at each stage. A good understanding between risk analysis results and funding requirements needs to be improved among agricultural SMMEs so that there is a perfect match between business risk profile and the funding requirements tendered to funders.

7.6 Recommendations for further studies

Inasmuch as this study adds on to the body of literature on life-cycle financing of agricultural SMMEs, further studies could be conducted on the use of this approach. Such studies could extend the investigations to aspects not covered by this study due to its design and focus. For instance, Agricultural SMMEs are highly differentiated in terms of their business activity. While this study reflects to some extent on the business activity effects on life-cycle financing, further research using disaggregated could focus specifically on life-cycle financing patterns for each of the different agricultural SMME activities. This could assist in compiling up literature that reflects on the unique life-cycle requirements.

The study also used cross-sectional data to evaluate the life-cycle financing pattern of the agricultural SMMEs. Whilst this is in line with other studies conducted on SMME

financing, where reliable time-series data were not available, with time, further research work could be done utilizing time series data in an attempt to track the life-cycle financing patterns. This may be done through cohort studies of selected agricultural SMMEs that track the changes in the life-cycle financing patterns as the selected businesses transition from one stage to another over time.

In Zimbabwe, data gaps on agricultural SMME financing are still large particularly on life-cycle financing. Given the importance of appropriate financing of these SMMEs using limited financing resources available, more dedicated studies based on different data collection methods and other business characteristics such as age, firm size, location, ownership, gender and business experience and knowledge of the owner could be undertaken and add to the existing body of literature. Such more dedicated studies could also reflect on the unique challenges faced in ensuring that these important business ventures are properly supported across the board. This would boost their chances of meeting the expectations that policy makers have regarding resuscitation of the agricultural sector.



Given the importance of studies on demand-side of agricultural SMME financing in financially constrained environments, there is also the need to work towards greater harmonisation of demand side survey methods used. This could enable better analysis of drivers of trends in agricultural SMME demand for life-cycle finance and conditions. At present, there are major differences across existing surveys relating to agricultural SMME financing in terms of methodology, questions asked, coverage and scale which all hinder better international comparisons of findings. Further studies could increase the corpus of literature based on the methodology used in this study. Of particular importance is the need to build on the Q-FMECA based work in this study to further investigate how financially constrained agricultural SMMEs could better match their financing instruments with the risk-profiles for each stage of the business. Such studies could offer more insightful recommendations on appropriate financing of these business ventures.

Lastly, with the growing share of non-debt financing instruments in SMME financing, further studies could investigate and collect more agricultural SMME specific life-cycle financing data on the range of external financing sources and instruments. Such

studies in Zimbabwe could further assist in making across country comparisons, building a stronger evidence base life-cycle financing practices. Furthermore, such empirical studies could contribute to literature on best practices in agricultural SMME life-cycle financing in a financially constrained environment while assisting the entrepreneurs to benchmark their practices against international agricultural SMME financing practices.



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APPENDICES

Appendix A: Agricultural SMME Survey Questionnaire

Questionnaire No.

Cross-sectional survey questionnaire to owner or managers regarding Dynamics of agricultural micro, small and medium-sized enterprise (SMME) life-cycle financing in Zimbabwe

Section A: Agricultural SMME characteristics

NB: For questions A1 to A8 below, please provide your responses in terms of the general characteristics of your particular agricultural business venture.

A1. Type of business/agricultural activity _____

A2. Give a brief description of your business venture:

A3. Age of business venture/activity  (Please tick applicable)

< 1 Year	2 years	3 years	4 years	5 years	More than 5 years (i. e 5+)

A4. Ownership structure

	Type of ownership structure	Please tick applicable
A.	Sole proprietorship	
B	Family business	
C	Partnership	
D	Co-operative	
E	Private limited company	
F	Joint venture	

A5. Annual Turnover (US\$ 000's)

Please tick applicable

<100		101-240		241-500		501-1 000		>1 000	
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A6. Total Value of Assets (US\$)

Please tick applicable

<50 000		50 001-1000000		100 001-2 000 000		>2 000 000	
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A7. Number of employees

Please tick applicable

0-5		6-40		41-75		76 and above	
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A8. Location of business activity _____

Section B. Regarding the sources and instruments for financing agricultural SMMEs

NB. In this section, please provide your responses in relation to what you have experienced as you financed your business venture.

B1. Please list financing sources and instruments which were available for financing your agricultural SMME.

a)	
b)	
c)	
d)	
e)	

B2. From your experience of financing agricultural the SMME, list the financing sources that you mostly used (start with 1=mostly used to last=least used).

Please add any other that you may have used.

B3. On the following scale, show your rating of affordability of funding sources and instruments for agricultural SMMEs! (Please tick applicable)

Very much affordable	Affordable	Unaffordable	Very Expensive
1	2	3	4

B4. Briefly explain your response to B3 above.

B5. List the main challenge that you have faced when sourcing funding for specific stages of development for your venture.

Stage of development	Main challenge faced
Inception	
Start-up	
Growth	
Expansion	
Maturity	
Decline	

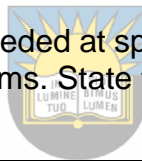
B6. Have the challenges faced affected your selection of the sources and types of finance you have used? Please explain your response.

Section C: Concerning Agricultural SMME life-cycle financing

NB. For questions C1 to C21 below, please give your responses according to your frank overall assessment of agricultural SMME financing and development in Zimbabwe based on your experiences.

A business venture develops through life-cycle stages which may be identified as Stage 1: where the business idea is conceptualized and assessed for feasibility and viability; Stage 2, during which the venture is set up and operationalized and ensuring survival; Stage 3, where there is initial growth mainly from within the business; Stage 4, during which there rapid expansion entailing search for new markets; Stage 5, during which the venture’s markets are consolidated with sales reaching peak level and products are well established on the market; and finally Stage 6, during which the business faces decline often requiring business rescue or wind-up.

C1. Specific funding tends to be needed at specific stages of a business development to address stage related problems. State the main type of funding used at each of the stages listed below.



Stage of development of the business	Main funding used at the stage
a) Formulating business idea	
b) Setting and ensuring survival	
c) promoting Growth of the venture	
d) Expanding the business	
e) the business reached maturity stage	
f) the business started to decline	

C2. Were the funding types you used sourced by you or they were recommended for your venture by your financiers?

C3. State the specific stage problems you sought to address through the funding cited in C1. above.

Stage of development of the business	Main problem (s) addressed/targeted
a) Formulating business idea	
b) Setting and ensuring survival	
c) promoting Growth of the venture	
d) Expanding the business	
e) the business reached maturity stage	
f) the business started to decline	

C4. Comment on the view that “*some types of funding are most appropriate for addressing particular life-cycle stage problems*”.

C5. Of the stages described above, state the one you consider most difficult and at which most agricultural SMME ventures fail.

Name of the stage: _____

C6. Briefly, explain why there is a highest chance for major problems occurring at this stage.

C7. Please, specify the main causes of failure at the stage cited in C5. above.

C8. For each of the stages, give a measure, out of 10. of the chance of major problems occurring for agricultural SMMEs in Zimbabwe.

Stage of development of the business	Out of 10,rate the chance of having major business problem(s) at each stage (for example- x/10)
a) Formulating business idea	
b) Setting and ensuring survival	
c) promoting Growth of the venture	
d) Expanding the business	
e) the business reached maturity stage	
f) the business started to decline	

C9. For each of the stages, give a measure, out of 10. of how significant the effects of the typical problems are on the overall success of the agricultural SMMEs in Zimbabwe

Stage of development of the business	Out of 10,rate the significance of the effects of the stage problem(s) on venture success (for example- x/10)
a) Formulating business idea	
b) Setting and ensuring survival	
c) promoting Growth of the venture	
d) Expanding the business	
e) the business reached maturity stage	
f) the business started to decline	

C10. Briefly, explain your ratings above on the significance of stage problems to the survival and success of agricultural SMMEs.

C11. Out of 10, please rate how easy it is to identify stage specific problems as they occur.

Stage of development of the business	Out of 10, rate the ease of identifying the stage problem(s) (for example- x/10)
a) Formulating business idea	
b) Setting and ensuring survival	
c) promoting Growth of the venture	
d) Expanding the business	
e) the business reached maturity stage	
f) the business started to decline	

C12. How easy was it to identify the key stage problems at each of the stages as you developed your business venture?

Not Possible	Very difficult	Easy	Quite easy
1	2	3	4

C13. State the stage during which you experienced the most significant problems.

C14. Briefly, describe the actual problem(s) you faced at the stage you identified in C13 above.

C15. On a sliding scale of relative difficulty, please tick in the box showing your rating of difficulty for each stage according to your experiences through these stages.

Stage of development of the business	Very difficult	Challenging	Very few problems faced	Now problems faced at all
a) Formulating business idea				
b) Setting and ensuring survival				
c) promoting Growth of the venture				
d) Expanding the business				
e) Business reached maturity stage				
f) the business started to decline				

C16. Do you think finance you used at each stage was appropriate in addressing stage problem? Please explain your answer below.

C17. For the most difficult stage (s), tick the extent to which funding used addressed the most serious stage problems.

Completely Inappropriate	Largely inappropriate	Partly address the major problems	Satisfactorily address the major stage problems	Perfectly address all stage critical problems
1	2	3	4	5

C18. Briefly elaborate on your rating in C17 above.

C19. Briefly, describe the situation in terms of the level of adequacy of funding for each of the stages.



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C20. In the order of importance of stage funding for your venture, please rank the stages to show where you experienced the greatest funding need. (Rank from 1 to 6 with (1=where there was greatest gap, to 6=where there was the least need).

Stage of development of the business	Ranking of funding gap
a) Formulating business idea	
b) Setting and ensuring survival	
c) promoting Growth of the venture	
d) Expanding the business	
e) the business reached maturity stage	
f) the business started to decline	

C21 for the most problematic stage, state the key problem (s) that need more appropriate funding.

Section D: Concerning possible /suggested sustainable agricultural SMME financing approaches

D1: I have been able to adequately meet the funding needs at all the stages in the development of my venture (Please tick appropriate in your case).

Strongly Disagree	Disagree	Agree	Strongly agree
1	2	3	4

D2: Please rank the stages of development in terms of how you financed them (*Rank as: 1=mostly funded from internal sources;6=least funded from internal sources*).

Stage of development of the business	Ranking according to internal funding
a) Formulating business idea	
b) Setting and ensuring survival	
c) promoting Growth of the venture	
d) Expanding the business	
e) the business reached maturity stage	
f) the business started to decline	

D3. What would you say are the reasons behind you financing your venture in the way shown in D2 above?

D4. Please suggest funding types or sources that you think are necessary to address the critical problems of each of the stages for agricultural SMMEs in Zimbabwe.

Stage of development of the business	Suggested funding for each stage
a) Formulating business idea	
b) Setting and ensuring survival	
c) promoting Growth of the venture	
d) Expanding the business	
e) the business reached maturity stage	
f) the business started to decline	

D5. Briefly, explain how the suggested funding could address the specific critical venture life-cycle problems and smoothen the development process.

Thank you for your time and contributions.



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Appendix B: Administered Questionnaire to Financing Executives.



Questionnaire administered to financiers regarding Dynamics of Agricultural SMME Financing and implications for sector development in Zimbabwe

Section A: Regarding agricultural SMMEs life cycle Financing

A business venture develops through life cycle stages which may be identified as Stage 1 where the business idea is conceptualised and assessed for feasibility and viability; Stage 2 at which the venture is set up and operationalized including ensuring initial survival; Stage 3 at which there is initial growth mainly from within the business; Stage 4 at which there is rapid expansion including searching for new markets; Stage 5, at which the venture's markets are consolidated with sales reaching peak and products well established and accepted; and finally stage 6, which is eventual decline of business often calling for rescue or wind up.

MAY YOU PLEASE PROVIDE YOUR RESPONSES TO THE FOLLOWING QUESTIONS IN THE CONTEXT OF LIFE CYCLE STAGES FOR AGRICULTURAL SMMEs IN ZIMBABWE



A.1. List the main types of financing that your organisation offers for agricultural SMMEs in Zimbabwe.

a)	
b)	
c)	
d)	
e)	

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A.2 Explain why your organisation focuses on the types of financing cited in A.1 above.

A.3. Based on your experiences, list the types of financing mostly sought by owners and managers of agricultural SMMEs (*Start with 1=mostly sought, to the last=least sought*).

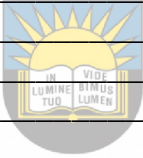
1)	
2)	
3)	

4)	
5)	

A.4. Specific funding tend to be needed at specific stages of business development to address stage related problems. State the specific stage problems addressed by finance from your organisation.

Stage of the business	Problem(s) addressed/targeted
(a) Business idea conceptualisation.	
(b) Setting up and ensuring survival.	
(c) Business Growth	
(d) Business expansion.	
(e) Business maturity stage.	
(f) Business decline.	

A.5 Are these specific stage funding requested by venture owners and managers or they are initiated by your organisation? Please elaborate your answer.



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A.6. List the main challenges that your organisation has faced in availing funding for specific stages of agricultural SMME development in Zimbabwe.

Stage	Challenges faced
Inception	
Start-up	
Growth	
Expansion	
Maturity	
Decline	

A.7. Have these challenges above influenced your organisation's selection of the development stages of the ventures that it finances? Please explain your response.

A.8. State the key owner-manager characteristics that your organisation checks when availing agricultural SMMEs finance in Zimbabwe.

A.9. From your observation, do owners or managers of agricultural SMMEs pinpoint specific critical life cycle stage needs when sourcing financing? Yes No

A.10. Please briefly explain your response to A.9. above.



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A.11. Name of the Stage where most ventures fail.

A.12. How would you describe the main problems faced at that stage?

A.13. How then do businesses typically fail?

A.14. From your assessment, rank the stages 1 to 6 in terms of how owners and managers struggle to manage the ventures through the stage. Rank (1=most problematic) to (6=least problematic) for owners and managers in the Zimbabwean context.

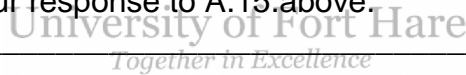
Stage of the business	Rank
(a) Business idea conceptualisation.	
(b) Setting up and ensuring survival.	
(c) Business Growth	
(d) Business expansion.	
(e) Business maturity stage.	
(f) Business decline.	

A.15. Early problem detection is critical for problem solving. Do you view agricultural SMME owners and managers as having capacity to identify the major stage problems early?

YES

NO

A.16. Please explain your response to A.15. above.



A.17. On a scale of 1 to 5, for the most difficult stage(s), rate the extent to which funding used by owners and managers is appropriate for addressing the most serious problems (1= Are completely inappropriate, 5= Perfectly addresses all adequately). Show your rating by ticking in the relevant box below.

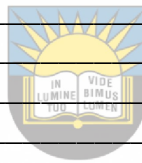
Are completely inappropriate	Are largely inappropriate	Partly addresses the major problems	Satisfactorily addresses the major stage problems	Perfectly Address all stage critical problems
1	2	3	4	5

A.18. Please, briefly explain your rating in A17 above.

A.19. In the order of importance or gravity of funding gap for the stages, rank the stages from greatest to smallest funding gap (1 = greatest gap; 6=smallest financing gap).

Stage of the business	Rating of Financing gap
(a) Business idea conceptualisation.	
(b) Setting up and ensuring survival.	
(c) Business Growth	
(d) Business expansion.	
(e) Business maturity stage.	
(f) Business decline.	

A.20. Briefly describe the situation in terms of the level of adequacy of funding for each venture stage in Zimbabwe.



A.21. For the most problematic venture stages, state the key problems that you have observed as needing more appropriate funding

Section B: Concerning possible sustainable agricultural SMME financing approaches

B.1 Do you regard agricultural SMME owners and managers as adequately identifying funding needs of their ventures at each stage of the venture life cycle? Please justify your answer?


B.2 Please rank the stages of agricultural SMME development in terms of how they are mainly internally funded (*Rank as: 1= mostly internally funded; 6=least internally funded*)

<i>Stage of the business</i>	<i>Ranking according to internally funded</i>
(a) Business idea conceptualisation.	
(b) Setting up and ensuring survival.	
(c) Business Growth	
(d) Business expansion.	
(e) Business maturity stage.	
(f) Business decline.	

B.3. What would you say are the reasons behind owners and managers financing their ventures in the way shown in B.2 above?

B.4. In your view, what funding is necessary to address the critical problems of each of the development stages for the business ventures in Zimbabwe.

<i>Stage of the business</i>	<i>Suggested funding for each stage.</i>
(a) Business idea conceptualisation.	
(b) Setting up and ensuring survival.	
(c) Business Growth	
(d) Business expansion.	
(e) Business maturity stage.	
(f) Business decline.	


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B.5 Briefly explain how your suggested funding could improve financing of specific critical venture life cycle problems and help develop the agricultural SMMEs.

Section C: About the Financier

C.1. Type of financier:

Bank	Non-Bank FI	Micro-Finance	Angel Investor	Specialised Government Agency	International Financial Institution	Non-governmental organisation	Other

C.2. Experience in Agricultural SMME Financing

< 5 years	5 to 9 years	10 to 15 years	15+ years

C.3 Size of agricultural SMME financing portfolio in Zimbabwe:

<\$50 000	\$50 001 to \$100 000	\$100 000 to \$150 000	\$150 000+

--	--	--	--

C.4 Main financing instruments used

1.	4.
2.	5.
3.	6.

C. 5. Technical Assistance offered:

C.6. Location _____

C.7. Area of operations _____

Thank you for your valuable time and contributions.



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Appendix C: Respondent Consent Form



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Ethics Research Confidentiality and Informed Consent Form

Please note:

This form is to be completed by the researcher(s) as well as by the respondent before the commencement of the research. Copies of the signed form must be filled and kept on record.

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Our University of Fort Hare through the Department of Economics is asking owners or managers of agricultural micro, small and medium enterprises to answer some questions, which we hope will benefit your sector in the future, as well as relevant finance executives in financing institutions that offer agricultural SMME finance in Zimbabwe.

The University of Fort Hare through the Department of Economics is conducting a research regarding “**The dynamics of agricultural micro, small and medium enterprise life-cycle financing and the implications for sector development in Zimbabwe**”. We are interested in finding out more about agricultural SMME owners’ knowledge of financing sources and instruments available for financing their businesses, the most commonly used sources and instruments, how owners finance their businesses along the business life cycle, the appropriateness of the funding used in addressing the main stage problems and the best sources and instruments that should be used at each stage in the business life-cycle.

We are conducting this research to help develop a life-cycle financing framework that ensures that the main funding needs of agricultural SMMEs which constitute the key threats to business survival and development are appropriately financed.

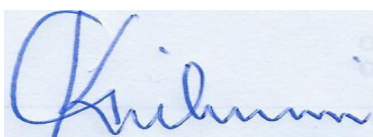
Please understand that you are not being forced to take part in this study and the choice whether to participate or not is yours alone. However, we would really appreciate it if you do share your thoughts with us. If you choose not to take part in answering these questions, you will not be affected in any way. If you agree to participate, you may stop me at any time and tell me that you do not want to go on participating. If you do this there will also be no penalties and you will NOT be prejudiced in ANY way. Confidentiality will be observed professionally.

I will not be recording your name anywhere on the questionnaire and no one will be able to link you to the answers you give. Only the researcher will have access to the unlinked information. The information will remain confidential and there will be no “come-backs” from the answers you give.

The questionnaire will take around 30 to 45 minutes to complete. I will be asking you questions and ask that you are as open and honest as possible in answering these questions. Some questions may be on specific activities or monetary values of the operations of your firm and/or your level of dealing with your financing of the business and therefore maybe sensitive in nature. I will be asking questions that you may not have thought about before, and which also involve thinking about the past operational activities, challenges, financing patterns or behaviours or ideal financing decisions. We know that you cannot be absolutely certain about the answers to these questions but we ask that you try to think about these questions and give your best possible responses whether in the form of factual quantitative responses or views, opinions and rankings and ratings where such qualitative responses are required. When it comes to answering questions there are no right and wrong answers.

If possible, our Department of Economics would like to come back to this area once we have completed our study to inform you and your sector through your sector Association of what the results are and discuss our findings and proposals around the research and what this means for the businesses in your subsector.

Yours Faithfully,



Signature: G. KICHINI

RESPONDENT

Date: _____

Appendix D: Ethical Clearance Certificate



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ETHICAL CLEARANCE CERTIFICATE

REC-270710-028-RA Level 01

Certificate Reference Number: SIM031SKIC01

Project title: **Dynamics of agricultural micro, small and medium enterprise life-cycle financing and implications for sector development in Zimbabwe**

Nature of Project: PhD in Economics

Principal Researcher: Gilbert Kichini

Name of Supervisor: Prof C.H Simatele

Co-supervisor: N/A

On behalf of the University of Fort Hare's Research Ethics Committee (UREC) I hereby give ethical approval in respect of the undertakings contained in the above-mentioned project and research instrument(s). Should any other instruments be used, these require separate authorization? The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above.

Please note that the UREC must be informed immediately of:

- Any material change in the conditions or undertakings mentioned in the document
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

The Principal Researcher must report to the UREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

Special conditions: Research that includes children as per official regulations of the act must take the following into account:

Note: The UREC is aware of the provisions of s71 of the National Health Act 61 of 2003 and that matters pertaining to obtaining the Minister's consent are under discussion and remain unresolved. Nonetheless, as was decided at a meeting between the National Health Research Ethics Committee and stakeholders on 6 June 2013, university ethics committees may continue to grant ethical clearance for research involving children without the Minister's consent, provided that the prescripts of the previous rules have been met. This certificate is granted in terms of this agreement.

The UREC retains the right to:

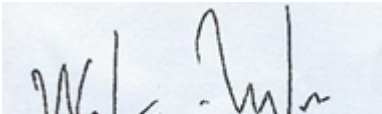
- Withdraw or amend this Ethical Clearance Certificate if:
 - Any unethical principal or practices are revealed or suspected
 - Relevant information has been withheld or misrepresented
 - Regulatory changes of whatsoever nature so require
 - The conditions contained in the Certificate have not been adhered to
- Request access to any information or data at any time during the course or after completion of the project.
- In addition, to the need to comply with the highest level of ethical conduct principle investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to the Dean of Research's Office.



The Ethics Committee wished you well in your research.

University of Fort Hare
Together in Excellence

Yours sincerely



Professor Wilson Akpan
Acting Dean of Research

15 December 2016
