THE PROSPECTS OF MUZARA'AH FINANCING AND SUPPLY CHAIN MODEL IN ZANZIBAR CLOVE INDUSTRY

BY

ISSA SALIM MOH'D

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ABSTRACT

The contribution of the agricultural sector, particularly the cloves, to the development of Zanzibar Islands is enormous. The government of Zanzibar relied on cloves for its national revenues, foreign exchange earnings and other development programs. However, since 1964, the clove production has continually declined significantly due to several challenges inherent in the existing models being employed in the sector. These challenges are: price fluctuation, high cost of production, lack of access to financing, minimal involvement of private sector in the industry, lack of logistics, monopoly of the crop (clove), and absence of an extended supply chain in the logistics and operations of the industry. Several programmes, measures and policies to remedy the situation were in vain. Evidences show the Waqf and Trust Commission (WTC) financing model in Zanzibar could be enhanced to overcome these inherent challenges. The present study has proposed waqf-muzara'ah- supply chain model (MSCM) to complement the WTC. Under this model (MSCM) the waqf resources and muzara'h financing are used for providing trainings and farming skills to farmers and financing farming equipment respectively based on a partnership contract where profit and loss are shared by both parties. The study has used mixed method (interview and survey) to validate the MSCM. The survey instrument was developed based on Theory of Reasoned Action (TRA). The survey hypothesized that, the behavioural intention (willingness) of farmers to use the proposed model is positively affected by their attitude and negatively influenced by their subjective norm. The survey data were analysed using SPSS and Structural Equation Modeling (SEM). While thematic analysis was used on the interviews data to generate the results. The findings from the interview show that the experts have strong opinion on the proposed model. Similarly, the results from the survey suggest that, individual beliefs of farmers (attitude) have positive influence and the perceived beliefs from their social pressure (subjective norm) have negative influence on their intention to use the proposed model. The findings in this study set a new direction for future research to extend the model in the agricultural sectors of other African and OIC member countries.

خلاصة البحث

للقطاع الزراعي ولا سيما القرنفل مساهمة كبيرة في تنمية جزر زنجبار. وقد اعتمدت حكومة زنجبار على القرنفل في إيراداتها الوطنية وعائدات النقد الأجنبي وبرامج التنمية الأخرى. وبالرغم من ذلك فمنذ عام ١٩٦٤ انخفض إنتاج القرنفل بشكل مستمر بسبب العديد من التحديات الكامنة في النماذج الحالية المستخدمة في هذا القطاع. وهذه التحديات هي: تقلبات الأسعار، وارتفاع تكلفة الإنتاج، وعدم الحصول على التمويل، والحد الأدنى من مشاركة القطاع الخاص في الصناعة، ونقص الخدمات اللوجستية، واحتكار المحصول (القرنفل)، وغياب سلسلة التوريد الممتدة في مجال الخدمات اللوجستية وعمليات الصناعة. كما ذهبت عدة برامج وتدابير وسياسات لمعالجة هذا الوضع سدى. وتظهر الأدلة أن نموذج تمويل لجنة الوقف والثقة في زنجبار يمكن تعزيزه للتغلب على هذه التحديات المتأصلة. وقد اقترحت الدراسة الحالية نموذج الوقف–والمزارعة– وسلسلة التوريد لتعزيز لجنة الوقف والثقة. وفي إطار هذا النموذج يتم استخدام موارد الوقف والمزارعة لتوفير التدريب والمهارات الزراعية للمزارعين وتمويل معدات الزراعة على التوالي بناء على عقد شراكة حيث يتم تقاسم الأرباح والخسائر من قبل الطرفين. وقد استخدمت الدراسة مناهج متنوعة (مقابلة والاستبيان) للتحقق من صحة نموذج الوقف–والمزارعة– وسلسلة التوريد. فقد تم تطوير الاستبيان بناء على نظرية الفعل المعقول. ويفترض الاستبيان أن النية السلوكية (الاستعداد) عند المزارعين لاستخدام النموذج المقترح تتأثر إيجابيا بموقفهم وتتأثر سلبا بمعاييرهم الذاتية. تم تحليل بيانات الاستبيان باستخدام برنامج الحزمة الإحصائية للعلوم الاجتماعية (SPSS) ونمذجة المعادلات الهيكلية (SEM). في حين تم استخدام التحليل الموضوعي على بيانات المقابلات لاستخلاص النتائج. وقد أظهرت نتائج المقابلات أن الخبراء لديهم رأي قوي بشأن النموذج المقترح. وبالمثل فإن نتائج الاستبيان تشير إلى أن المعتقدات الفردية للمزارعين (الموقف) لها تأثير إيجابي والمعتقدات المتصورة من الضغط الاجتماعي (القاعدة الذاتية) لها تأثير سلبي على نيتهم في استخدام النموذج المقترح. وأظهرت النتائج التي توصلت إليها هذه الدراسة اتجاها جديدا للبحوث المستقبلية لتوسيع نطاق النموذج في القطاعات الزراعية للبلدان الأفريقية الأخرى والبلدان الأعضاء في منظمة التعاون الإسلامي.

APPROVAL PAGE

The thesis of Issa Salim Moh'd has been approved by the following:

_____
Mustafa Omar Mohammed
Supervisor

_____
Abideen Adewale
Internal Examiner

_____
Amir Shaharuddin
External Examiner

_____
Magda Ismail Abel Mohsin
External Examiner

_____
Mohamed Naqib
Chairman

DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Issa Salim Moh'd

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I dedicate this work to my dear and beloved parents: Zuhura Habib Suleiman and Salim Moh'd Salim, my wife and our kids who rendered me all the love, support, motivation and courage during my study. May Allah reward them in this world and hereafter abundantly.

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LIST OF ACRONYMS AND ABBREVIATIONS

ASPD-L	Agricultural Sector Development Programme
ASSP	Agricultural Services Support Programme
ATI	Zanzibar Agricultural Transformation Initiatives
BOT	Bank Of Tanzania
BRAC	Building Resources Across Community
CA	Conservation Agricultural
CEPAL	Agriculture Value Added /Agricultural Workers*Cereal Prices
CGA	Clove Growers Association
GDP	Growth Domestic Product
MFIs	Microfinance Institutions
MKUKUTA I	Mkakati wa Kitaifa wa Kukuza Uchumi na Kupunguza Umasikini (for the National Strategy for Growth and Reduction of Poverty). Phase One
MKUKUTA II	Mkakati wa Kitaifa wa Kukuza Uchumi na Kupunguza Umasikini (for the National Strategy for Growth and Reduction of Poverty). Phase Two
MKUZA I	Mkakati wa Kukuza Uchumi na Kupunguza Umasikini Zanzibar (Zanzibar Growth and Poverty Reduction Strategy). First Phase
MKUZA II	Mkakati wa Kukuza Uchumi na Kupunguza Umasikini Zanzibar (Zanzibar Growth and Poverty Reduction Strategy). Second Phase
NABARD	National Bank for Agriculture and Rural Development (India)
NGOS	Non-Government Organizations
NMB	Tanzania National Microfinance Bank
OCGS	Office of the Chief Government Statistician
PADEP	Participatory Agricultural Development and Empowerment Project
PD:	Probability of Default
SACCOS	Savings and Credit Cooperatives
SADEC	Southern African Development Community
SAGCOT	Southern Agricultural Growth Corridor of Tanzania Program
SMEs:	Small and Medium Enterprises
SMOLE	Sustainable Management of Land and Environment Programme
TADB	Tanzania Agricultural Development Bank Limited
TIBAWI	Tanzania Investment Bank Agriculture Window
TZS	Tanzania Shilling
VSLA	Village Savings and Loan Association
MSCM	Muzara'ah-Supply Chain Model
WTC	Waqf and Trust Commission
ZACPO	Zanzibar Clove Producers Organization
ZATSD	Zanzibar Agricultural Transformation for Sustainable Development
ZCCFSP	
ZHDR	Zanzibar Human Development Report

ZSTC	Zanzibar State Trading Corporation
IMWIMM	Integrated Waqf Based Islamic Microfinance Model
SBP	State Bank of Pakistan

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Agriculture is vital for human welfare and economic growth (Bravo-ortega & Lederman 2005; Ghosh et al. 2010). According to De Soysa, Gledditsch, Gibson, & Sollenberg (1999), agriculture has significant economic contribution across the globe. Rosegrant & Hazell (2001) and M. Ahmed & Lorica (2002) note that agriculture has a great impact on employment, income, purchasing power improvement, development and this transformed the rural economies. On the same note, Gollin, Parente, & Rogerson (2016) argue that agricultural productivity has substantial contribution in the industrialization process. In fact, even in big nations like America, agriculture plays a vital role in her industrialization process (Lobao & Meyer 2010).

In sub-Saharan Africa, more than 750 million people who live in dire poverty (earning less than US$1 per day) rely on subsistence agriculture as their major source of food and income, and about two-thirds (2/3) of the people depend on farming for their livelihood[1] (Havnevik, Bryceson, Matondi, & Beyene, 2007; Rosegrant & Hazell, 2001).

In practice, agriculture in most African countries is the backbone of their economy, considered as a key sector for African development. It is also considered as a driving sector for income and purchasing power improvement (Havnevik et al. 2007).

[1] https://www.nap.edu/read/12832/chapter/11, accessed on 12.10.2016

1.2 AGRICULTURE IN ZANZIBAR: THE CLOVE INDUSTRY

According to MKUZA II[2] (2010), Zanzibar's national accounts categorise the economy into three major sectors, namely, (i) Industry[3], (ii) Service sectors and (iii) Agriculture, which is the focus of this study. Agriculture in Zanzibar is the main economic activity (OCGS, 2007). The Agriculture sector accounted for 30.8% of the GDP in 2010 (ASDP-L and ASSP, 2009 and OCGS Bulletin 1, October 2014)[4].

On average, 70 percent of the population in Zanzibar depends directly or indirectly on the agricultural sector as their main economic activities (OCGS, 2007).

Clove occupies a prime position in the history and agricultural system of Zanzibar. (Sheriff, 2001 and ZSTC, nd.). In other words, Zanzibar and clove are inseparable historical twins. Zanzibar was once the largest producer of clove in the world, and her economy was based on large incomes thus derived (RGOZ, 2010). Clove was the mainstay of the Zanzibar's economy during the colonial period (Sheriff, 2001).

In Zanzibar, the Islands of Tanzania, which is the focus of the present study, agriculture is an important economic sector in terms of food production, employment generation, production of raw materials for industry, and generation of foreign exchange earnings. Since its introduction in the 18th century, clove as an agricultural cash commodity has been contributing 83 percent of the foreign exchange earnings derived from exports.

According to a monthly report by the Bank of Tanzania in October 2016, the exports of goods hiked to USD 74.7 million from USD 29.9, most on account of

[2] MKUZA is a Swahili acronym that means Mkakati wa Kukuza Uchumi na Kupunguza Umasikini Zanzibar i.e. Zanzibar Growth and Poverty Reduction Strategy
[3] Industries include textiles.
[4] Whereas the clove industry contributed 23% as of 2006 and 32% as of 2010 of the Growth Domestic Product (GDP).

increased exports of cloves. Table 1.1 shows the exports derived from the clove industry for fourteen years (14years).

Table 1.1: Zanzibar Clove Exports- Foreign Revenues[5]

Year	Cloves	Clove stems
2001	2,061.9	323.5
2002	5,959.8	187.3
2003	5,219.0	497.0
2004	4,097.6	476.0
2005	3,266.7	350.6
2006	3,156.6	128.8
2007	1,085.6	226.5
2008	4,007.0	345.4
2009	3,536.0	445.0
2010	2,129.0	280.0
2011	3,743.0	468.0
2012	1,755.4	328.4
2013	4,100.0	820.0
2014	4,152.4	538.8

Source: Bank of Tanzania Annual Report, 2014/2015

Furthermore, the clove industry has been the source of income to farmers. This is manifested in seasons of cloves where farmers receive money for their personal use, personal financing, building new houses and renovating their old houses, buying furniture for their buildings and houses, buying cars, and the income also becomes the source for their working capital of their small businesses. In addition, the clove industry in the Islands is a national strategy to poverty eradication. The government of Zanzibar through its national program MKUZA has policies of eradicating poverty in the Islands (MKUZA II, 2010; Sheriff, 2001, Martin, 1991 and Bakari, 2001).

The clove is still a major export in the Islands and this has made the agricultural sector to be considered as an engine of the growth of the Zanzibar

[5] (Quantities in Tons)

economy and a priority sector for poverty reduction (MANR- Agricultural Sector Strategic Plan 2011-2014, 2011).

Official statistics (OCGS, 2007) show that clove contributed an annual average of about Tshs 6.5 billion to farmers who sold their clove to ZSTC between 2002 and 2006, and Tshs 71 billion in 2011 (1 USD approx. 1600 Tanzanian Shillings as of 2011). Thus, clove contributes significant income that surpass the contributions of all other economic activities combined. Basically, this contribution is a result of the key players in the production process of the clove industry. These players are explained in the next session.

1.2.1 Key Players in the Clove Production

The key players in the clove production are: (1) the farmers (2) the middlemen and (3) the government agency which is represented by ZSTC (Zanzibar State Trade Corporation). The role of these three key players are explained below:

1. Famers. These are clove owner-producers. There are also individual farmers who lease their clove-farms to other people.
2. Middlemen i.e. *wachumaji na wakodishwaji* (clove pickers and renters). The former i.e. *wachumaji* are the people hired by the farmers to pick clove from its stalks and dry them while the latter i.e. *wakodishwaji* are those who lease clove farm from the farmers to earn for themselves clove revenues.
3. Zanzibar State Trade Corporation (ZSTC), a Government Corporation charged with the functions of purchasing cloves from the farmers. It is also responsible for clove development, processing essential oils and other

agricultural produce as well as conducting all necessary business in connection with the supply and distribution of national commercial crops.

1.3 CHALLENGES FACING THE CLOVE INDUSTRY IN ZANZIBAR

Despite its contribution to the Islands' GDP, export income, income of farmers and poverty eradication, the production in the clove industry in Zanzibar continues to decline. Table 1.2 shows the decline in productivity of the clove industry in the Islands for a period between 2011- 2015.

Table 1.2: Clove Exports for five years (2011-2015)

Year	**2011**	**2012**	**2013**	**2014**	**2015**
Volume (Tons)	2.1	4.1	2.2	5.4	2.8
Diff. in Q (T)	-	2	-1.9	3.2	-2.6
Value (Ml in $)	7.5	52.4	20.6	59.9	30.6
Diff. M in $	-	44.9	-31.8	39.3	-29.3
Unit Price ($/Tn)	3,638.8	12,880.7	9,437.2	11,118.0	11,101.2
Diff. Un ($/T)	-	9,241.9	-3443.5	1680.8	-16.8

Source: Bank of Tanzania Annual Report, 2014/2015.

The table 1.2 above, shows the decline trends in production where the clove production declined from 1.9 tons to 2.6 tons in the year 2013 and 2015 respectively. Consequently, this decline resulted into a loss of exports (foreign earnings) of about 31.8 million (USD) and 29.3 million (USD) of the same years respectively.

The challenges facing the clove industry are: price fluctuation, high cost of production, lack of financing and restrictions from financing institutions, minimal involvement of private sector in the industry, monopoly of the market in the industry, high interest rates and absence of an extended supply chain model in the industry. The author summarizes these challenges into two main groups namely; endogenous and

exogenous. The endogenous challenges are inherent to the existing models employed in the agricultural sector particularly the clove industry in Zanzibar. These challenges are three (3): high cost of production, minimal involvement of private sector in the industry, and high interest rates.

On the other hand, the exogenous challenges are the external and emerging problems the industry faces. These challenges are four (4): price fluctuations in the industry, lack of financing and restrictions from financing institutions, monopoly of the market in the industry and absence of an extended supply chain model in the industry (MKUZAII, 2010 and ZACPO, 2010; Hugos, M. H, 2011 and Oakden, R & Leonaite, K., 2012).

In summary, the challenges mentioned above remain prevalent in the industry and the current models being employed in the industry are subject to these challenges which are inherent. Next section discusses these models employed in the clove industry in Zanzibar.

1.4 MODELS EMPLOYED IN THE CLOVE INDUSTRY IN ZANZIBAR

The challenges facing the clove industry, as identified above, are due to the inherent weaknesses of the existing models being employed in the industry. These challenges still prevail in the industry despite several measures taken by the government to address them. Therefore, it is important to highlight the models being employed in the agricultural sector particularly in the clove industry in Zanzibar and their inherent challenges.

Generally, in Tanzania, which is also the case in Zanzibar, there are three main categories of models employed in the agricultural sector. These models are; banking models, non-banking models and government models.

1.4.1 Banking models

The banking models are financing models or schemes which are employed or offered by the banking institutions in the country. There are several banking models for financing different sectors in the country. But this study has chosen Tanzania Investment Bank-Agriculture Window (TIBAW) solely because this model offers financing to agricultural sector in the country.

1.4.1.1 Tanzania Investment Bank-Agriculture Window Model (TIBAW)[6]

The Tanzania Investment Bank (TIB) opened a window called "**Agriculture Window**". This window was essentially opened to assist the farmers to access financing and hence facilitating their agricultural activities. Currently about 35%, of the financing goes to companies and corporate farmers, 30% microfinance institutions, 30% SACCOS, farmer cooperatives and associations and 5% for technical assistance. In turn the borrowing institutions lend the loan to individual farmers who are then supposed to repay the principal (cost plus the initial interest charges that are very high). Basically, this model creates three exogenous challenges; high interest rates, financial restrictions and collateral requirements.

1.4.2 Non-banking Models

There are four types of non-banking institutions in Zanzibar. These institutions are Non-Governmental Organizations (NGOs), Savings and Credit Cooperatives (SACCOS), Government Managed Credit Schemes and Microfinance Institutions (MFIs) (Mohamed and Temu, n.d.). According to Mohamed and Temu (n.d.), more

[6] Extracted from the presentation for the AFRACA Eastern Africa Sub-Regional Workshop, Dar Es Salaam – 16th May 2012, by Thomas M. F. Samkyi – Director of Development Financing, TIB on Practical Aspects of Agricultural Financing in Tanzania The Case of Tanzania Investment Bank