



# Master's degree thesis

**LOG950 Logistics**

**Title: Factors influencing marketing agent's performance. An empirical study of Collective Marketing with evidence from Malawi tobacco growers**

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**Number of pages including this page: 101**

**Molde, 2011**

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## **Dedication**

To our beloved parents, brothers and sisters.

## **Acknowledgement**

Firstly we would like to give GLORY and HONOR to the ALMIGHTY GOD for His mercies and Grace upon our lives. We thank Him for guiding us all the way from the beginning of this work up to this moment. We pray that He will continue to stand with us for the rest of our life.

We would like to express our sincere thanks to our supervisor, Associate Professor Heidi Hogset for her invaluable dedication, patience, and time with which she handled the work to ensure that high quality of the work is attained throughout the study period. We highly appreciate her cooperative heart and constructive advice during our study.

We thank the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) for allowing us to collect data for this study through one of their projects in Malawi; also for covering data collection cost.

We extend our sincere gratitude to Profesor Arnt Buvik, for his professional guidance during this work despite being so busy he was available to assist us whenever we needed him.

### **From Ehua C. A. Aka**

Words failed to express my special and sincere gratitude to my father, Professor Joseph Aka and my mother, Dumery-Noe Angele without whom all this journey would have not been possible. My husband and my son deserve also my special gratitude for being patient and supportive during these two years. May God bless you all for the loving hearts you always show to me.

### **From Yusta W. Simwita**

I am eternally indebted to my parents. To my Father Wilson K. Simwita who passed away some years ago I wish he could be here today but God has the reason behind everything and my beloved Mother Evilen U. Simfukwe, I would like to say thank you for their unconditional love and prayers.

Our special thanks to our beloved Pastor Albert N. for his encouragement and prayers during this study. May God keep on using you pastor.

Our heartily appreciation goes to Richard Glavee-Geo and Gladness Salema, PhD students for their support during this study. We highly appreciate your tireless support, encouragement, and professional support. Despite the fact that you have a lot to do with your studies you were always available whenever we needed your support.

We finally extend our gratitude to all our friends for their positive support during this study. We highly appreciate your support. May God bless you all.

Ehua C. A. Aka and Yusta W. Simwita,

Molde, 2011

## Abstract

**Purpose** – Collective Marketing has been given great attention for the past decades and now makes a significant contribution to the improvement of smallholders' welfare. This study presents data from a survey of Malawi's tobacco growers that provide a better understanding of factors influencing marketing agent's performance in the relationship between smallholders and their marketing organization.

**Theoretical framework** – Principal agent theory was used to guide this study. The model for the research and four hypotheses were formulated after intensive review of agency theory literature. The study focuses on testing the influence of the factors: monitoring, external influence, information exchange and goal conflict on agent's performance. Data from 86 respondents from marketing groups serving smallholder tobacco growers in Malawi were collected to provide empirical support to our theoretical predictions.

**Findings** – The significant influencing factors on the agent's performance were found to be related to monitoring activities of the agents and information sharing between both parties. The research findings support the basic agency theory assumptions that monitoring and information exchange positively affect agent's performance. The findings also suggest that the establishment of effective monitoring systems such as inspection of agent's performance reports and sales records is likely to improve the performance of the agent. Furthermore, the findings demonstrates that information sharing on issues like quality and expected prices of the product may lead to successful achievement of the farmers goals, thus, enhances agent's performance.

*Keywords:* Collective marketing, agent's performance, smallholder farmers, agency theory

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## **LIST OF ABBREVIATIONS**

AGOA: African Growth and Opportunity Act

ARET: Agricultural Research and Extension Trust

IMF: International Monetary Fund

IB: Intermediate Buyer

FAO: Food and Agriculture Organization of the United Nations

MK: Malawian Kwacha

MRFC: Malawi Rural Finance Company

ROI: Return on Investment

TAMA: Tobacco Association of Malawi

TCC: Tobacco Control Commission

## **Chapter one: Introduction**

### ***1.1 Background Information***

Recent research in collective action has witnessed an increasing awareness for the need and the importance of collective action as a strategy for rural development (McCarthy, Dutilly-Diane and Drabo, 2004), especially in developing countries where collective action can help smallholders capture economies of scale in production, marketing, transaction costs and bargaining power (Di Gregorio, Hagedorn, Kirk, Korf, McCarthy, Meinzen-Dick and Swallow, 2004).

Collective action can be described as an action taken by a group of individuals to achieve common interests (Di Gregorio et al. 2004). In this study, collective action is used in terms of collective marketing, where smallholders grow their crops individually but market them collectively. According to the Food and Agriculture Organization of the United Nations (FAO, 2005), collective marketing plays a major role in farming throughout the world. In most countries farmers have increased their income and efficiency by joining with other farmers to market their goods, purchase their inputs and co-ordinate their farming techniques. Collective marketing is an important issue which is given more and more attention. Currently, there is growing interest in empirical and theoretical studies of agricultural marketing channels (Harrington and Manchester, 1986; Akridge, Whipker, Downey and Hooper, 1993; Barkema and Drabenstott, 1995; Royer, 1995). Many authors have found that agricultural development will not occur without engaging smallholder farmers who represent the majority of actors in this sector and this has placed renewed attention on institutions of collective action, such as farmer groups, as an efficient mechanism for enhancing marketing performance (Barham and Chitemi, 2009).

Collective marketing involves farmers' groups to either market their outputs directly or through producer marketing organizations (Arcas and Ruiz, 2003). Such organizations aim to defend the interest of their members in order to achieve market power (Schroder, Wallace and Mavondo, 1993). The use of those organizations has several implications for the groups; both legally and practically. Membership to a club is mandatory in some developing countries (Perner, 2008), and membership to an association also brings other

benefits to the farmers, such as improved access to information about new farming technologies and modern inputs.

## ***1.2 Brief history of collective marketing in Malawi***

In Malawi, an estimated 90 % of the population depends on agriculture for its livelihood and the vast majority of rural households are farmers who have less than one hectare of land to grow crops for food (Seyfarth, 2010). Productivity growth among smallholder farmers will lead to agricultural development as they account for a large number of actors in the agricultural sector (Magingxa and Kamara, 2003; Diao and Hazell; 2004). However, smallholder farmers in Malawi are facing obstacles in market access which if solved will lead to more rural employment, food security, sustained agricultural development but also increased income to farmers (Poulton, Dorward, Kydd, Poole, Smith, 1998; Stiglitz, 2002; Dorward, Kydd, Morrison and Urey, 2003). Due to this reason, the government has established a policy which focuses on collective action such as collective marketing groups as an efficient mechanism for linking smallholders to the market through a marketing association.

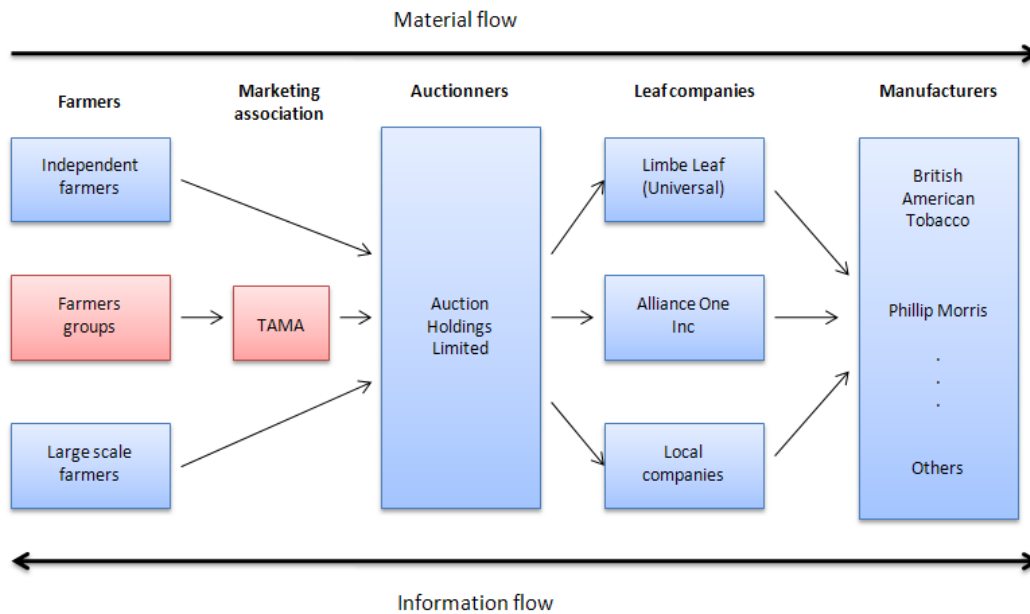
Collective marketing involves different types of crops in Malawi and takes the direction of involving smallholders farmers to join groups and market their products collectively (Markelova and Meinzen-Dick, 2006). This study focuses especially on tobacco which farmers in groups of ten to thirty members market collectively through the Tobacco Association of Malawi (TAMA), a governmental organization which aims to defend the interest of farmers. Detailed information regarding TAMA and collective marketing will be presented in chapter three.

## ***1.3 Malawi's tobacco supply chain***

Malawi's tobacco supply chain involves several tiers starting from the farmers through various intermediaries to the manufacturing plants in the US or other countries. First of all, farmers deliver tobacco from their farms through clubs to satellite depots suggested by TAMA in rural areas, where the tobacco will be kept until Auction Holdings Limited (AHL) authorizes depots to deliver the tobacco to the auction floor. After the auction, tobacco is delivered to the buyer's processing factories in Malawi, where the raw leaf is turned into unprocessed tobacco. Then the tobacco is loaded into shipping containers and

shipped to cigarette-manufacturing facilities abroad, mostly those of Philip Morris and British American Tobacco. Our work focuses only on the relationship between the farmers' groups and TAMA, marked in red in the figure below. More information regarding the supply chain process is presented in chapter 3.

Figure 1.1 Malawi's tobacco supply network



### 1.4 Statement of the problem

Collective marketing of the tobacco crops is seen to be one of the main solutions to several problems faced by the smallholder farmers. In Malawi, collective action in agriculture has been relatively successful, helping tobacco growers to achieve some economies of scale in marketing, reduce transaction costs, achieve some quality requirements, increase crops production and reduce the poverty headcount ratio from 50 to 40 percent in only two years, 1997 and 1998 (World Bank, 2010). But there are still sensitive issues which if solved will lead to an improvement of Collective action in Malawi. The study explores the reasons why collective action is not a full success in Malawi tobacco industry and how to improve those weaknesses. According to the current situation in Malawi, the performance of the farmers' marketing associations is not satisfactory in terms of logistics functions like storage, delivery time, information flow, but also other services like credit, input supplies and training (Jaffee, 2003; Nsiku and Botha, 2007). Thus, the aim of this study is to

analyse clearly the factors or areas that can enable farmers' groups and their agents to improve marketing agent's performance, thus their market situation.

### ***1.5 Objective of the study***

The primary objective of our paper is to understand collective marketing in Malawi's tobacco sector. The specific objective of this study is to assess how factors like monitoring, information exchange, external influence and goal conflict can influence marketing agent's performance in the relationship between farmer's groups and their marketing association, TAMA. From these objectives, we aim to answer the following questions: What factors influence marketing agent's performance in Malawi's tobacco sector? How do factors like monitoring, information exchange, external influence and goal conflict influence marketing agent's performance in Malawi tobacco's sector? Finding such aspects will help to suggest necessary solutions to improve the relationship between farmers' groups and the farmers' association TAMA and thereby achieve the country's ultimate goal in terms of agricultural success and poverty alleviation. Furthermore, the findings of this work can serve as an example for other developing countries which are facing the same situation.

### ***1.6 Relevance of the study***

Collective marketing has been given great attention for the past decades since its success and sustainability is of crucial importance for smallholder farmers as it improves their bargaining power and reduces their marketing costs (Agarwal, 1994; Knox-McCulloch, Meizen-Dick and Hazell, 1998; Johnson, Suarez and Lundy, 2002).

However, few empirical studies have tried to explore the factors influencing marketing performance of the producer marketing agents. While the main focus of these empirical studies has been on factors influencing the performance of smallholders farmers groups (Arcas and Ruiz, 2003; Barham and Chitemi, 2009; Dietz, Aulerich, Irwin and Good, 2009), our study explores the factors influencing the performance of the marketing agent, due to the fact that smallholder farmers can also participate in the marketing system collectively through producer marketing agents (Schroder et al. 1993).



## ***1.7 Organization of the dissertation***

This dissertation is divided into eight chapters. Chapter one introduces collective action in marketing and how this concept is important to agricultural marketing and its performance. Also in this chapter the statement of the problem and the importance of the study are highlighted. Chapter two presents the theoretical review and the framework that will direct the study. Collective marketing is discussed in chapter three and chapter four reviews the research model presented to support this work as well as the several formulated hypotheses. Chapter five is devoted to the research methodology applied by the study while chapter six deals with the methods used to validate the measurement of the data. Chapter seven presents the data analysis and the testing of the several hypotheses in the intention of confirming or disconfirming them. The last chapter, chapter eight presents the summary of the study, the limitations of the study and also the suggestions for further research.

## **Chapter two: Literature review**

### ***2.1 Theoretical perspective***

In this chapter the theoretical framework for the study is reviewed. Agency theory is used to provide theoretical framework for the current study on performance issues with respect to collective marketing in Malawi's tobacco industry sector. Agency theory has two main streams: positivist agency theory and principal-agent theory (Eisenhardt, 1989). Positivist agency theory is mostly applied to intraorganisational relationships especially those involving corporate managers (Bergen, Dutta and Walker, 1992). It also differs from the Agency theory in the fact that it assumes that the agents are risk neutral rather than risk averse. Moreover, it does not involve too much mathematical formality in its approach (Bergen et al, 1992). In this chapter an overview of principal agency theory is presented followed by a presentation of theoretical variables that constitute the principal agent paradigm. The presented variables are then used as a foundation for the theoretical framework of the current study.

#### **2.1.1 Agency theory**

The origin of Agency theory can be traced from informational economics and is associated with the origin of risk sharing issues among the cooperating parties (agents and principals) in the 1960's (Arrow, 1971; Eisenhardt, 1989). According to Eisenhardt (1989) agency theory can be used to assess both an explicit (legal) and implicit (social) aspect of the contract between principal and agent. Also it determines the environment under which the contractual arrangement between the principal and the agent operates more efficiently. The theory is concerned with solving measurement and motivational problems that occur when principal and agent differ in their goals and desires and it is infeasible for the principal to verify the agent's performance (Tate, Ellram, Bals, Hartmann and Valk, 2010).

According to Jensen and Meckling, (1976) agency theory focuses on the relationship between a principal delegating some work to an agent who performs that work on his behalf. Scholars in the principal-agent school of thought highlight that the delegation of authority to make decisions is the core reason why agency problems arise such as information asymmetry and goal conflict. Major contributions in this area are Jensen and

Meckling (1976), Barney and Ouchi (1988) and Eisenhardt (1989), who described issues concerning informational asymmetry, which results into informational problems.

Principal-agents scholars describe the goal conflicts presumptions which predict challenges posed by the conflicting interests between the principal and the agents. On one hand, the school further broadens the concept of agency problems to include behaviors like laziness, lack of attention to contracted parties, corruption and other behaviors that undermine the principal's welfare. Woodbine (2008) highlighted that the agency problem results from moral hazard, associated with the principal's inability to observe the agents' activities so the agent is tempted to shirk, and from adverse selection, which is resulting from agents possessing private information. On the other hand is the risk sharing concept. Scholars have highlighted three risk attitudes which are risk neutral, risk averse and risk loving which are very important in determining the appropriate contract type.

It is argued that Agency theory is the dominant theory for analyzing several mechanisms which are used to resolve several agency problems resulting from asymmetric information (Saam, 2007). Just to mention a few, some of these mechanisms highlighted in the theory include monitoring systems, incentives compensations systems, and bonding (Jensen and Meckling, 1976). More details of these mechanisms will be discussed in the next section.

Agency theory has been widely used in the agricultural literature, too, including studies of marketing of agricultural products. Examples of these studies include (Cheung, 1973), (Roumasset and Uy, 1987), (Knoerber, 1989), (Allen and Lueck, 1995), (Roumasset, 1995), (Menard, 1996), (Martinez, 1999), (Bandiera, 2002), (Cook and Barry, 2004) and (Boland, Golden and Tsoodle, 2008). In this study of collective marketing we consider farmers as the principal and TAMA as the agent.

## ***2.2 Agency assumptions***

### **2.2.1 Human assumptions**

Underlying the theory are the specific assumption about human nature (self interest, bounded rationality, risk aversion), organization (Goal conflict) and information (Eisenhardt, 1989).

### **2.2.1.1 Bounded rationality**

Bounded rationality is a notion that in decision making, decision makers are constrained by limited cognitive capabilities and incomplete information. The core notion of this assumption is that decision makers intend to be rational but this rationality may be circumscribed by their limited information processing and communication ability. Due to this limitation they seem to have incomplete and inconsistent goals and thus their actions may be less than completely rational in spite of their best intentions and efforts (Simon, 1982). Gulbrandsen (1998) highlighted that this limitation is a useful tool in understanding the incapability of writing a comprehensive contract that takes into account all the possible contingencies. Due to the uncertain environment a business operates in, bounded rationality is a problem due to the fact that future circumstances that will have harmful effects on the contracting parties cannot be determined from the beginning of the contract (ex ante) and cannot be measured easily for performance verification (Rindfleisch and Heide, 1997). Generally bounded rationality implies that it is difficult for people to process all pieces of information even if they have them.

### **2.2.1.2 Self interest**

Self interest refers to the fact that in case of unexpected events each actor will behave in the best interest of their own functional area (Logan, 2000). Self interest reflects human nature as a self centered attitude in which the agent is seeking gains at the expense of the principal. Heide and John (1990) connected self interest to free riding behavior in marketing research perspective which results in some failures in marketing issues in supply chains. In transaction cost economics self interest is regarded as opportunism.

Parker and Hartley (2003) describe opportunism as the incomplete disclosure of information. Williamson (1975, 1985) highlighted that human beings are not only boundedly rational but also sometimes behave opportunistically. He explains opportunistic behavior as self interest seeking that is exploiting the situation to one's own benefit. Williamson (1975, 1985) assumes that some people do behave opportunistically and that it is very difficult or impossible to determine ex ante who are the honest and dishonest people. He assumes that those people who behave opportunistically do not do so always. Hence, it is very difficult to fully describe ex ante at what time they do so or do not. This

argument is also supported by (Buvik, 1995). Taking into consideration the problem of asymmetric information, it is very difficult to determine ex ante when the agent will behave opportunistically and when he will not behave so.

### **2.2.1.3 Risk sharing**

Risk sharing is the problem arising when the principal and the agent have different risk attitude. There is a difference between action preferences of principal and agent due the different attitudes towards risk (Eisenhardt, 1989). The theory describes two contrasting risk sharing strategies - risk absorption and risk shifting. When the principal pushes the risk to the agent, it is referred to as risk shifting and the principal is considered as risk averter. On the other side when the principal bears the whole risk of the transaction it is referred to as risk absorption.

## **2.2.2 Organizational and informational assumptions**

### **2.2.2.1 Information asymmetry**

Information asymmetry has been defined as the situation whereby information is available but not evenly distributed between the principal and the agent. Asymmetric information gives rise to informational problems which complicate the relationship between two parties (Schreuder and Douma, 2008). Information asymmetry gives rise to two informational problems, i.e., adverse selection (hidden information) and moral hazard (hidden action) (Eisenhardt, 1989).

#### ***Adverse selection***

Adverse selection is an ex ante information problem which means that one part in the transaction is better informed than the other party. It is further explained as the misrepresentation of the agent's ability to perform the contracted task (Arrow, 1985). With adverse selection it is difficult for the principal to determine the agent's ability before the contract is written. Principals face problems as agents might hide some pieces of information regarding their knowledge and ability to perform the contracted task.

### ***Moral hazard***

Moral hazard is an ex post informational problem which refers to the action that occurs after the two contracting parties have agreed to execute the transaction. Holmstrom (1979) highlighted moral hazard as the situation whereby the agent's actions cannot be observed by the principal, hence the need to be contracted. There are a lot of problems that are associated with moral hazard, like free riding, shirking by the agent which in turn reduces the principal's welfare (Holmstrom, 1979). Barney and Ouchi (1988) stated that agency problems may exist even in cooperative effort in which no clear cut relationship between principal and agent is observed. Generally principals face problems when they cannot observe clearly what the agent is performing.

Eisenhardt (1989) stated that the unobservability of the agent's actions to the principal poses a challenge taking into consideration the presence of self interested human nature. He attributed it to two factors, i.e., goal conflict and uncertainty, which are explained hereunder.

#### **2.2.2.2 Goal conflict**

Goal conflict is among the agency problems explained under the principal agent framework. Goal conflict arises simply because the principal and agent differ in their preferences. Each of them wants to maximize individual utility; the agents want to maximize their income while the principals focus on maximizing their return (Saam, 2007). Generally goal conflict results from incongruent goals between the principal and the agent. Most empirical studies have evidenced the tendency for most agents to pursue their own goals at the expense of principals (Barney and Ouchi, 1988; Brown and Potoski, 2003). Several scholars have analyzed several types of goal conflict occurring in different scenarios like goal conflicts problems arising in cooperative efforts (Barney and Ouchi, 1988), between rules and practice (Thompson and Jones, 1986; Braun, 2003) and between conflicting policy objectives (Penska and Thai, 2000; Blomerg, 2001).

Agency theory has contributed to solving agency problems theoretically from the principal's perspective. These theoretical remedies are expected to minimize the agency problems described above. Some of the mechanisms highlighted in the principal agent framework include reporting procedures, and creating a board of directors. Eisenhardt (1989) highlighted that the application of those mechanisms open the agent's behavior to

the principal. Several measures have been proposed by principal agent framework which can be used to resolve agency problems, including monitoring. These mechanisms will be explained in the next section.

### **2.2.2.3 Uncertainty**

Uncertainty has been described by Williamson (1975) as the inability to predict unforeseen contingencies that may occur between the contracted parties. Ellram and Billington (2001) stated that contingencies can lead to opportunism whereby one party of the contract can take advantage of the situation in order to favorably interpret the contractual terms. Uncertainty is linked to the risk issues. According to Bergen et al (1992) uncertainty forces principal and agent to take into consideration the resulting risk together with their own risk preferences during contracting. Eisenhardt (1989) states that when uncertainty is low the costs associated with shifting risk to the agents are low compared to when uncertainty is high in the transaction. Uncertainty can be internal or external.

#### ***Internal uncertainty***

Internal uncertainty is the behavioral category of uncertainty under which the organization fails to know their actual needs or the prevailing situation surrounding the transaction. This makes it difficult for one part of the transaction to verify the fulfillment of the obligation by the other party (Ellram and Billington, 2001). It involves the individuals in the transaction. Scholars in principal agent paradigm link behavioral uncertainty with information problems, i.e., information asymmetry. Fama and Jensen (1983) highlighted that it is difficult and costly to reveal the agents performance behavior with information asymmetry taking into consideration that information is a purchasable commodity. Rokkan and Buvik (2003) also linked behavioral uncertainty to the evaluation of the agent's performance problems. Bergen et al. (1992) described that in marketing perspective information asymmetry causes the agent sometimes to deliver false information to the principal. This can be linked to collective marketing too as the marketing agents can sometimes not deliver the true information from the market place.

#### ***External /Environmental uncertainty***

Bergen et al (1992) stated that external uncertainty exists due to the factors that change over time, not easy to predict and which are beyond the control of both agent and

principal. Regulatory factors, technological change, political factors, climate change, and environment factors are among the main factors leading to external uncertainty. External uncertainty deals with the level of uncertainty in the market place (Bergen et al, 1992). It refers to "unanticipated changes in circumstances surrounding an exchange" (Noordewier, John and Nevin, 1990, p.82). External uncertainty is linked to cost associated with the contract adjustments. When uncertainty is combined with human nature (self interest and bounded rationality), the contract problems arise resulting into performance evaluation challenges (Noordewier et al. 1990). According to Bergen et al (1992) external uncertainty leads to incomplete contracts between principals and their marketing agents.

## ***2.3 Mechanism of Agency theory to solve agency problems***

### **2.3.1 Mechanism for solving adverse selection problems**

#### **2.3.1.1 Screening**

A principal has to formulate an information gathering strategy which will precisely determine the true characteristics of the agent's behavior the principal is looking for. These strategies include observing the potential agent through tracking down the reference of the agent, personal interviews and assessment centers which also generate costs to the principal (Spence, 1974; Bergen et.al, 1992).

### **2.3.2 Mechanism for solving moral hazard problems**

#### **2.3.2.1 Monitoring systems**

Monitoring systems are used to control the agent's actions by the principal. The principal systematically collects information on what the agent is doing. This can lead the agent to act in the principals' interest if the principal will be able to verify the agent performance behavior (Jensen and Meckling, 1976, p.323; Eisenhardt, 1989, p.60, 64). Such monitoring systems are like budgeting systems, reporting procedures, additional layers of management and board of directors. Since these systems generate high costs to the principal, they can be complemented by other control systems and incentive compensations systems (Saam, 2007). According to Bergen et al. (1992) monitoring systems are highly applied in marketing to monitor the agent behavior; for example in sales context, field observation by



the principal, narrow span of control and periodical review of the sales person are used to monitor the agent's behavior.

### **2.3.2.2 Bonding**

Under this mechanism the agent binds himself to the principal on certain actions, for example delivering information regarding his performance and committing himself to receive sanctions in case he violates his commitment. Still this brings costs to the principal (Jensen and Meckling, 1976).

## **2.3.3 Mechanism for solving both moral hazard and adverse selection problems**

### **2.3.3.1 Incentive compensation system**

Jensen and Meckling (1976) proposed that incentive or reward systems can be used to resolve agent problems. Incentives are more important when monitoring the agent is very expensive to the principal and difficult to establish (Jensen and Meckling, 1976). Incentive systems enable principal and agent to co-align in their preferences because both are gaining a return from what they are doing and the rewards for both depend on the same actions. Incentive systems implementations bring costs for the principal and risk to the agent. For this matter therefore the principal has to take into consideration the tradeoff between agency cost and the increase in returns (Saam, 2007).

### **2.3.3.2 Self selection**

Self section refers to the situation whereby the agents has to select himself from the given contract options. For example by choosing either behavioral based contract instead of outcome based one, he opens his risk preference to the principal and shows how he is ready to work hard for the assignment ahead of him (Arrow, 1986; Saam, 2007). Bergen et al (1992) highlighted that the principal has to proactively implement mechanisms that will reveal the abilities and willingness of the agents to devote their effort through self selection. For example a principal can require a lengthy training program for the agents and those agents lacking required competent will self select themselves out of the relationship with the principal or not even applying for the position.

### **2.3.3.3 Signaling**

Signaling implies that the agent is engaged in activities whose main purpose is to signal to the principal that he or she is the type of the agent the principal is seeking (Bergen, et al, 1992). The agent signals to the principal his risk preferences and willingness to work hard. Spence (1974), Grinblatt and Hwang (1989) and Saam (2007) stated that under signaling, the agent provides his hidden characteristics to convince the principal about his willingness to work hard. In signaling the agent is the one who pays the cost, for example paying for higher education in order to acquire more knowledge.

### ***2.4 Chapter summary***

In this chapter agency theory has been presented which is the core theory for the current study. Historical background of principal agent framework and agency theory assumptions has been discussed. In addition to that the mechanisms of solving agency problems have been presented. The next chapter presents collective marketing.

## **Chapter three: Collective Marketing in Malawi**

### ***3.1 Introduction***

This chapter is dedicated to collective marketing for smallholders. Collective marketing is of crucial importance for smallholders at this era of high agricultural market competition. For them to be able to compete with large corporations, they need to maintain high quality and market in large volumes, which can only be achieved through collective marketing. The first part of this chapter presents general collective marketing issues, the second part narrows down, focusing on collective marketing in Malawi, the country in which the study was conducted.

### ***3.2 General Collective Marketing***

#### **3.2.1 Overview of Collective Marketing for smallholders**

Trade liberalization during recent decades has changed the world market in ways that have a strong impact on African smallholders. Globalization has left smallholders farmers in a vulnerable trade environment due to strong market forces. Smallholders are prevented from competing with large corporations in the market due to factors like poor technology, weak institutional arrangements and high transaction costs which is mainly caused by inefficient established supply chains operated by smallholders' farmers. Collective marketing is seen as one of the main solutions to all these problems faced by smallholders if it is properly organized by the respective collective marketing institutions (Nyikahadzo, Siziba, Sagary, Njuki, and Adekunle, 2011).

Collective marketing has been described as an economic program whereby smallholder farmers having shared problems and interests tend to join together into groups so that they can be able to pool their produce together and market collectively either as a group or through producer organizations. These groups are used by smallholders to acquire agricultural inputs collectively as well as coordinating their farming activities (Bikande, Ferris, Hodges, Kleih, Okoboi, Robbins and Wandschneider, 2003). Mostly smallholders cultivate their produce individually and market them collectively.

Collective marketing is of crucial importance for smallholders since it improves their bargaining power, mitigates exploitation done by middlemen, improves storage facilities

and through external association they are easily linked to the market (Knox-McCulloch et al., 1998; Johnson et al., 2002 ). Collective marketing can be in different forms like cooperatives, producer groups and associations and inter professional associations which deal with specific products. Producer groups and associations are made up of group members who seek to resolve common problems (Tungani, 2010). The main focus of this study is concerned with producer groups and their associations form of collective marketing for smallholders. The overall goal of these forms of collective marketing is the same and aims to solve the shared problems of the group members. Therefore, it is important to discuss its contribution to smallholders' economic growth in detail regarding its objectives and challenges.

### **3.2.2 Objectives of Collective Marketing**

#### **3.2.2.1 Improving economies of scale**

Economies of scale have been defined as the situation whereby the cost of producing an additional unit of a product is reduced as the proportionate volume of output is increased (Waldman and Jensen, 2007). Economies of scale can be realized in different activities like manufacturing and marketing. In marketing economies of scale is realized as the amount of the product to be sold is increased leading to the reduction of transaction cost per unit and improvement of the selling price. For efficient marketing and realization of economies of scale smallholder farmers tend to organize themselves into groups, and market their produce either through associations or cooperatives. Schroeder (1992) stated that the main motives of agricultural supply and marketing cooperatives are to maximize economies of scale to the members. He further highlighted that for these groups to be able to compete in the market; efficient operation is needed in their supply chain.

Generally collective marketing for smallholders is aimed to improve economies of scale when they market their produce together. For collective marketing to operate efficiently smallholders need to take the responsibility of maintaining quality and also grading their produce. If the marketing is done through external association the grading can be done by those associations. The most successful strategy of collective marketing is for groups to work collectively in an efficient way (Nyikahadzoi et al. 2011). For example, in Malawi tobacco collective marketing, grading of the tobacco is done by TAMA, the marketing agent.

### ***Lowering transportation and transaction cost***

The main objective of collective marketing is to reduce transportation costs for smallholders when trying to reach the market for their produce and also improve prices for their produce (Shiferaw, Obare and Muricho, 2008). Bikande, et al. (2003) stated that when smallholders collect all their produce together it is easy for them to hire a transport for themselves and travel to the market place whereby they can be offered better prices than they get from those traders at their local area. This strategy will enable smallholders to bypass some of intermediaries acting between them and buyers. This will lead to a reduction of traders. The remaining traders will have more business which can lower their operation cost resulting in good prices offered to farmers. Hence collective marketing is a key tool for smallholders to realize profit when selling their produce.

Any market exchange involves transaction costs which include costs of gathering and processing information about agents, products, markets, negotiation and monitoring cost. It is costly for smallholders individually to collect useful market information regarding the market and agents. Through collective marketing it becomes easier for them to reduce transaction cost (Ton, 2010).

### ***Strengthen bargaining power***

“Bargaining power refers to the relative capacity to obtain favorable terms from a transaction” (Ton, 2010). Bargaining power is associated with the ability to access market information, alternative trading, and how long the product can be stored (Ngambeki, Nowakunda and Tushemereirwe, 2010). Generally smallholders have a low bargaining power especially when they act individually in the market, which makes them sometimes sell their product at a cheaper price hence getting a smaller share of added value across their supply chain. Ngambeki et al. (2010) stated that collective marketing improves bargaining power of the farmers through selling their product collectively rather than individually. Collective marketing improves bargaining power on the input side, too, for smallholders. This is achieved when they buy their input in bulk together (Ton, 2010).

### ***Reduce Market Risk***

Market risk is increasing for smallholders due to high rate of competition in the market, price instability, high quality products demanded by the buyers, and lack of information from further processing industry of their products. Market uncertainty for smallholders can

be reduced through participation in a collective marketing institution with well established market information flows, and transparent communication lines.

### ***Increasing quality control***

Collective marketing enables farmers to produce exclusive and distinctive products which generates high price (Bikande, et al., 2003). This is achieved when they collect their produce together, sort and grade according to the quality. Grading can also be done by the association linking them to the market. Through this collaboration it is easy for them to maintain certain standard of quality which will attract major buyers to pay high prices for their produce. As a group they would like to maintain this reputation by focusing on quality improvement. This argument is also supported by Bikande, et al. (2003). A good example of quality issues can be seen from Malawi Tobacco growers whereby TAMA as their marketing agents grades their tobacco before it reaches to the auction floor; as a result it motivates farmers to focus on quality issues because the high quality tobacco is sold at a better price.

### ***Incentive to increase production***

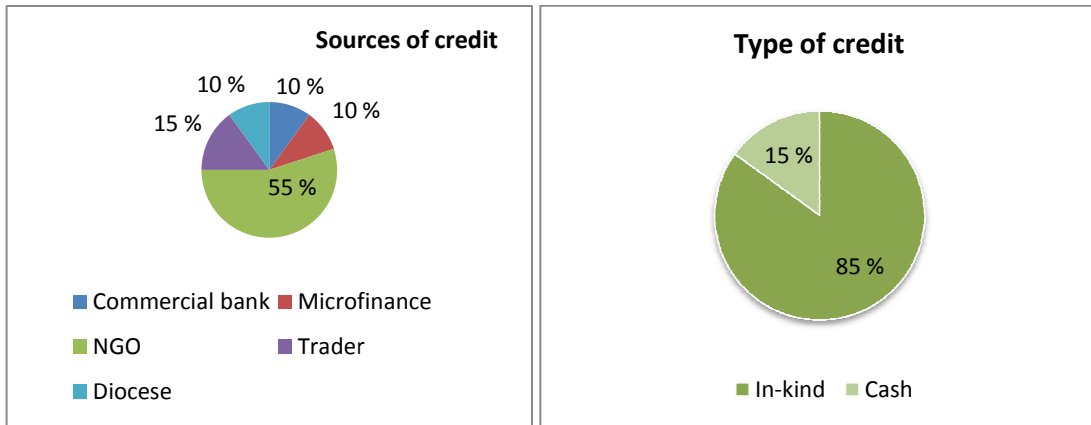
Collective marketing encourages farmers to shift from subsistence production to commercial production. This is mostly achieved because they are able to purchase input in bulk, access extension services and agricultural research services (Ngambeki, et al., 2010). Also collective marketing makes marketing easier for smallholders hence giving them a stronger incentive of using more of their land to produce more surplus which leads to income increase.

### ***Improving access to credit***

Banks and other formal financial organizations require collateral for them to offer loans. It is difficult for smallholder farmers to have enough collateral individually. Through collective marketing smallholders engage in group lending which is used as collateral to borrow money from financial institutions. Also it is easier for an external organization or association to link them to credit institutions when they are in groups rather than act individually. Collective marketing is a bridge between credit institutions and farmers groups (Bikande et al., 2003; Ngambeki et al., 2010 ). A good example can be seen from Malawi collective marketing groups which have been able to be linked to different sources of credit. The data was collected from twenty tobacco groups in 2010 by ICRISAT in collaboration with Molde University College. They are able to receive credit in cash and in

kind as presented in the figures below. Borrowing in kind is usually receiving inputs on credit, using the future crop as collateral. We see that is the most common form of credit in this environment. Source: ICRISAT 2010 data from Malawi tobacco groups.

Figure 3.1 Sources and types of credit



### ***Enables access to communal equipment and services***

Through collective marketing smallholders organize themselves into groups which make it easier for government and other agencies to offer their services like training and agricultural extension services. Also it improves accessibility to communal equipment like storage facilities and transport (Bikande et al., 2003). A good example is Malawi tobacco growers groups which are able to store their tobacco in TAMA warehouses when they are in groups rather than individually, making it easier for TAMA and other government extension workers to offer both training and other services, such as access to their storage and packing facilities.

## **3.2.3 Dimensions of Collective Marketing**

### **3.2.3.1 Monitoring, review and quality control.**

Regular monitoring, review and quality control are the key determinants for successful and sustainable collective marketing (Ostrom, 1990, Stockbridge et al., 2003; Subba, Chapagani and Mainali, 2008). Ostrom (1990) highlighted that for a successful collective action there must be a well established behavior monitoring system which has to be under the authority of respective members of the group. Monitoring can be done at the group level in which members monitor one another. It can also be that collective marketing

groups as principals monitor their agents who perform marketing activities on their behalfs resulting into principal agent relationship. Monitoring systems are used to control the agent's performance by the principal. The principal systematically collects the information on what the agent is doing. This can spur the agent to act in the principals' interest if the principal is able to verify the agent's behavior (Jensen and Meckling, 1976 p.323; Eisenhardt, 1989 p.60, 64).

### **3.2.3.2 Information sharing**

Information sharing is one of the key strategies for viability of collective marketing. It constitutes establishment of open communication lines between members and good practices of information exchange (Subba et al, 2008). Ostrom (1990) described lack of information as a social dilemma obstacle which must be solved for existence or success of collective marketing institutions. Collective marketing groups or associations have to be transparent regarding the transactions of the group and also have a good line of market information, like prices and product quality to members. Information is a key to any transaction taking place between two exchanging parties (Ostrom, 1990). This is very essential to avoid information asymmetry problem especially when a principal-agent relationship exists like the case of Malawi tobacco growers where sales and marketing activities are performed by their agent TAMA. Catacutan, Bertomeu, Arbes, Duque and Butra (2006) stated that effective feedback and communication is of critical importance for maintenance or enhancement of collective marketing.

### **3.2.3.3 Bounded goals**

Swallow, Garrity and Noordwijk (2001) highlighted that conflicts within collective marketing groups is unavoidable due to unequal distribution of income and responsibilities. Across the supply chain some members or agents will obviously act opportunistically, that is, favoring their own interest. Ostrom (1990) found that clearly defined goals enable collective marketing groups to clearly govern their behavior. This implies that clearly defined goals are a key for successful collective marketing. Each group or institution has to clearly define the boundaries of its responsibilities and the way of income and benefit distribution among members.



#### **3.2.3.4 Clear set of rules and obligations**

Clearly defined rules and obligations are key determinants for a successful collective marketing (Ostrom, 1990). Clearly defined rules are easily monitored and they reduce governance and coordination costs for the respective collective marketing group. For easy compliance those rules need to be established by the group members so they will match with their local needs and enhance effectiveness and viability of collective marketing activities (Markelova and Meinzen-Dick, 2009). Modifications process of these rules should involve each individual affected by them. External authorities like governments and other agents should support and respect these rules (Ostrom, 1990).

#### **3.2.3.5 Institutional structure and governance**

According to Ostrom (1990), sustainability of collective marketing is highly dependent on institutional structure and with well established governance system. Clearly defined rules and responsibilities of each member of the institution simplify the operation of the group. Simple and understandable rules enhance compliance and accountability and it acts as a self enforcing mechanism (Ostrom, 1990). A well organized collective marketing institution results in a highly coordinated and cohesive group.

#### **3.2.3.6 Incentives**

Successful and sustainable collective marketing needs proper establishment of incentives (Calzolari, 2001). These incentives range from within the group and also between the group and agents, governments or any other organization supporting the group. Marketing agents, governments and other associations need to provide training and other services like extension services, credit services, improve infrastructure, and provide relevant market information. These services act as incentives for smallholders to participate in collective marketing (Markelova and Meinzen-Dick, 2009). Furthermore if there is principal agent relationship, smallholders need to provide incentives to their agents. Since agents have private information regarding the market, principals need to design an incentive scheme or contract that will motivate or attract agents to behave in accordance with the principals' interests (Calzolari, 2001). This implies that collective marketing groups marketing their produce through their agents need to establish a good incentive scheme which will

motivate these associations to serve them according to their needs. Example of such incentives could be payment of subscription fees, producing quality products and receiving a percentage of farmer's earnings.

### ***3.3 Collective Marketing of tobacco in Malawi***

Malawi is a largely agricultural country where several types of tobacco are cultivated. The main types are burley and flue cured. Tobacco is so important to economic progress in Malawi; it has been called Malawi's "Green gold". It contributes approximately 70% of the country's export earnings (Government of Malawi Economic Reports, 2008) and it will be our focus in this study. Malawi has recently overtaken the US as the world's leading exporter of burley tobacco (Jaffee, 2003), and produces about 20 % of the world's total production of burley tobacco (Mackay and Eriksen, 2002). Tobacco determines the pace and direction of overall economic growth for Malawi since there is a close correlation between agricultural sector performance and overall economic performance.

In Malawi, an estimated 90 % of the population depends on agriculture for its livelihoods and the vast majority of rural households are farmers who have less than one hectare of land to grow crops for food (Seyfarth, 2010). Productivity growth among smallholder farmers will lead to agricultural development as they account for a majority of actors in the agricultural sector (Magingxa and Kamara, 2003; Diao and Hazell; 2004). However, smallholders farmers in Malawi are facing obstacles in market access which if solved will lead to more rural employment, food security, sustained agricultural development and also income to farmers (Poulton et al., 1998; Stiglitz, 2002; Dorward et al., 2003). The improvement of market access is of critical importance. That is why it has lead policy makers to focus on collective action such as farmers groups as an efficient mechanism for enhancing collective marketing performance (Kariuki and Place, 2005).

Collective marketing involves different types of crops in Malawi and takes the direction of encouraging smallholder farmers to join groups and market their products collectively (Markelova and Meinzen-Dick, 2009). Collective action is well recognized as being an important component of rural development (McCarthy; Dutilly-Diane; Drabo, 2004), but this is not going to happen without the involvement of the government. Most of collective marketing issues in Malawi have been strongly supported by the government since 1990.

### **3.3.1 Legal and regulatory context**

Before 1989, tobacco production was highly controlled by the government. All tobacco producers were required to obtain a license from the Tobacco Control Commission (TCC) - the government regulatory body - and only estates and landowners were eligible to apply for production license. In the late 1980s, Malawi adopted a policy of liberalization in line with demands from the World Bank and the International Monetary Fund (IMF) (Millington, 2008). Reforms under the adjustment program included allowing smallholder farmers who dominate 90% of the agricultural sector to produce cash crops, and liberalize marketing of agricultural outputs and inputs. An important issue of these reforms was the creation of burley tobacco groups in the mid 1990s with the support of the Ministry of Agriculture of Malawi. The government initiated the issue of collective marketing and value adding in order to position itself better in the world market by encouraging farmers to join groups comprising ten to thirty people and market their product collectively. These groups were a success since they made possible for the farmers to achieve economies of scale in marketing, and improve farming productivity through collective action (Negri and Porto, 2007). These measures contributed greatly to the rapid expansion in tobacco production since 1995.

Post liberalization era brought the introduction of a program to license intermediate buyers (IB) of tobacco by the government. These intermediate buyers were a source of immediate cash for smallholder tobacco growers since they were middlemen between smallholder tobacco growers and the auction floor, buying raw tobacco leaves from several small growers at a negotiated price and selling them on the auction floor at the market price (Nsiku and Botha, 2007). This has led to an increase of the competition in the tobacco marketing sector. However, the IBs program proved to be controversial since this practice tended to reduce the revenues going to farmers (Jaffee 2003). Therefore, the Malawian government in its view of supporting the smallholders abolished the intermediate buyers system and began setting minimum prices for the various grades of tobacco in 2007, after accusing merchants of putting growers out of business by offering them too low prices (Otañez, Mamudu and Glantz, 2007).

Another institutional development made possible by a credit under a World Bank Project was to offer smallholders access to credit (Jaffee, 2003). This service was initially possible through the Malawi Rural Finance Company (MRFC), a government owned company

designed to provide financial services for smallholder tobacco growers organized in groups.

The Malawian government sets several policies in order to improve the well-being of Malawians by promoting broad-based and rapid agricultural development. Among them, the Cotonou trade agreement that governs the raw tobacco trade relations between Malawi and Europe and the AGOA (African Growth and Opportunity Act) that governs the raw tobacco trade relations between the country and the USA (Otañez et al, 2007).

### **3.3.2 Stakeholders of Collective Marketing**

The tobacco industry in Malawi involves several actors that somehow influence it. Below are the major players:

#### **3.3.2.1 Grower**

Growers are the pillar of the whole tobacco industry since they are responsible for the production. Malawi's tobacco growers are scattered across the country and are largely grouped into two types: Estates and growers associations. Estates are large farms that will comprise tenants while growers associations on the other hand are several individuals coming together to market tobacco as a group. Any of them who seek to be a commercial tobacco grower must be registered at the Tobacco Control Commission (TCC) who issues the grower with a grower registration number and a production certificate. Without a registration number, no person can sell tobacco in the floors.

#### **3.3.2.2 Tobacco Association of Malawi (TAMA)**

To facilitate collective action of smallholder farmers in terms of collective marketing the government of Malawi operates through TAMA. This organization was established by the government to serve and defend the interests of farmers in all marketing promotion operations. Its objectives are to advance and protect the interests of all tobacco growers, provide compelling services to its members and generate wealth through wider income diversification and value and develop the tobacco industry in Malawi. This association offers several services to farmers' groups but also to estates, cooperatives, and corporate growers. These services include registration of farmers to TCC, ensuring market and information access to farmers, providing inputs and training necessary to the production of

tobacco, ensuring safety and quality in transportation of its members' products, representing its growers on the auction floors through its tobacco sales representatives, bargain on behalf of its growers on the contract sales and act in case of rehandling problems faced by farmers. Membership to TAMA was mandatory before 2004, but as the tobacco industry sector evolved, membership to TAMA became voluntary after that period. Source: [www.tamalawi.com](http://www.tamalawi.com)

### **3.3.2.3 Auction Holding Limited (AHL)**

Auction Holdings Limited (AHL) is the sole auctioning company, established in 1939, which provides a platform for tobacco trading in Malawi. In 1981, AHL acquired the majority shareholding in Central Tobacco Properties Limited and the group now comprises Auction Holdings Limited, Agricultural Trading Company, Tobacco Investments Limited and Malawi Leaf. The core mission of the group is to play a leading role in improving and managing the best systems for handling and marketing tobacco and related products and services but also to provide value to shareholders and other stakeholders. AHL operates four main floors for tobacco selling and runs also rural markets where AHL provides facilities and support structures that enable smooth trading of tobacco. Source: [www.ahlmw.com](http://www.ahlmw.com)

### **3.3.2.4 Tobacco Control Commission**

The Tobacco Control Commission is a government owned regulatory authority established in 1938 under the Control of Tobacco Auction Floors Act Chapter 65:03. Its main mission is to manage and regulate the systems of production and marketing of tobacco in the country and to promote the growth of the industry while ensuring good environmental, socio-economic and health issues of production and consumption. The organization controls and regulates the sale of tobacco as well as the license registrations of growers and sellers. TCC reviews the applications and investigates on businesses that apply for tobacco licenses (Jaffee, 2003). This organization also advises the government on sale and export of tobacco and holds public hearings on violations of the Tobacco Control Ordinance. Source: [www.tccmw.com](http://www.tccmw.com)

### **3.3.2.5 Buyers**

Malawian tobacco attracts several buyers. Limbe Leaf Tobacco Co., a unit of Universal Crop, Alliance One Inc. consisting of Dimon and StanCom, Africa Leaf Malawi Ltd., Premium Tama Tobacco Ltd., Malawi Leaf Co., RWJ Wallace Ltd. and Japan Tobacco Inc. are the biggest buyers of tobacco in Malawi which export the leaves to other countries. Among them, the major are Limbe Leaf and Alliance One that buy together nearly 90 per cent of the market, the remaining is spread among the others (Jaffee and Nucirofa, 2005). These buyers operate as a cartel through their monopoly on processing, and have maintained their share over time with only minor variations (World Bank, 2005).

### **3.3.3 Collective Marketing process**

Before 2003, the main marketing channel for tobacco in Malawi was the auction floors, the place where the buyers declare interest of the crop by bidding. A change in the marketing system started in 2003 with the use of contract growing especially for the Flue Cured tobacco.

In 2006, the use of contract marketing system was introduced on a three years pilot study. This type of contract involves buyer and seller to agree on prices allowing negotiation between them. The Ministry of agriculture and food security of Malawi has each year given its approbation for the continuation of this system. However, the decision to sell either on auction or through contract remains the choice of each farmer after considering the advantages and disadvantages of each system. Therefore, it appears that still the traditional marketing channel for tobacco in Malawi is the old auction system and this is not to displease the stakeholders (Jaffee, 2003). Intermediate buyers still also exist but are considered as an illegal system (Jaffee and Nucirofa, 2005).

In Malawi, the process of collective marketing starts with the farmers themselves whereby they cultivate their tobacco individually with the assistance and training from their agents and the government extension workers. After harvesting their produce, they dry the leaves, and then pack them in bales. Each farmer's bales are tagged with names and transported to TAMA warehouses. From the warehouses, TAMA transports the tobacco and delivers it at the auction floor on the day allowed by AHL. TAMA is responsible for negotiating transport cost of the trucks picking tobacco to the auction floor on behalf of the smallholders, also storage of tobacco bales before delivering it to the auction floor, and

helping and protecting smallholders during the sale of the tobacco at auction floor. In the past, farmers have been complaining a lot about the mismanagement of these depots due to bales gone missing or damaged or due to high transportation costs for the deliveries made to the auction markets (Jaffee, 2003). Even if some improvements have been reported regarding these arrangements, inefficiencies still remain for services provided (Jaffee, 2003). TAMA negotiates on behalf of the smallholders especially when the price offered by the buyers is not satisfactory. After the sale of tobacco the farmer receives the money through their bank accounts several weeks after in general and after several taxes and levies including subscription fees for TAMA membership and government taxes have been deducted (Takane, 2006).

The cigarette manufacturers at the international level establish prearranged contracts with the local companies to purchase tobacco in Malawi; however they do not have ownership interests in those companies (Otañez et al, 2007). British American Tobacco and Philip Morris are the key buyers of tobacco from companies in Malawi and influence Malawi's tobacco sector (Carrao, Guindon, Sharma and Shokoohi, 2000).

### **3.3.4 Collective Marketing control mechanisms**

According to Egelhoff (1984), control is an integrating mechanism within an organization to reduce uncertainty and ensure that behaviors from all parts of the organization are compatible and support common goals. In the same vein, Youssef (1975) defined control as a set of activities to ensure the execution of goals and plans. Furthermore, Egelhoff (1984), associates control with reactive measurement and feedback processes in order to evaluate the performance. Based on these authors, the word "control" implies everything that can ensure that the actors at all levels of the organization work to ensure the realization of agreed goals.

The objective of control mechanisms in collective marketing is to ensure that the collective marketing-related activities and decisions are made effectively to achieve the collective marketing objectives (Subba et al. 2008). From their point of view, a regular monitoring, review and quality control are the important conditions for successful collective marketing activities.

In Malawi, each organization (e.g. TAMA, AHL, TCC) has their own control mechanisms in terms of annual audit but the entire chain is not concerned with any control mechanisms and this raises a problem in assessing the actual performance of the actors.

### **3.3.5 Collective Marketing challenges**

The benefits of collective marketing have been discussed several times in this study. However it would be difficult to achieve those benefits and keep improving if the challenges are not pointed out and addressed accordingly (Subba et al. 2008). The main challenges that face collective marketing in Malawi are presented below:

#### **3.3.5.1 Logistic performance of the marketing services providers**

According to Ton (2010), smallholder farmers that bulk their products through state marketing boards are highly likely to face challenges in terms of the efficiency in services delivered by the organization. And this is one of the most important challenges since it is the peacemaker of the relationship between principals and agents (Ton, 2010). In Malawi, TAMA, the major service provider in terms of tobacco is accused by the farmers of not fulfilling its obligations in light of its promises. And this is also acknowledged by one of TAMA's officers in an interview with one of the authors on the 27th of January at TAMA headquarters in Malawi and we cite "... we acknowledge that we have been sleeping for the past two years".

Furthermore, Nsiku and Botha (2007) recognized that the challenge of the tobacco industry in Malawi includes certainly the small-scale nature of production but mostly, the poor performance of the state and public institutions that provide inadequate market information and unequal benefit-sharing for tobacco revenues between producers and buyers.

#### **3.3.5.2 Asymmetric information and threat of opportunistic behavior**

Fama (1980) says that agency relationships consist of contracts under which principals engage agents to perform some activities on their behalf and this involves a delegation of some decision-making authority to the agents. And according to Eisenhardt (1989) information is asymmetrically distributed among principals and agents, especially the information detained by the agents about their own behaviors or decision making in the

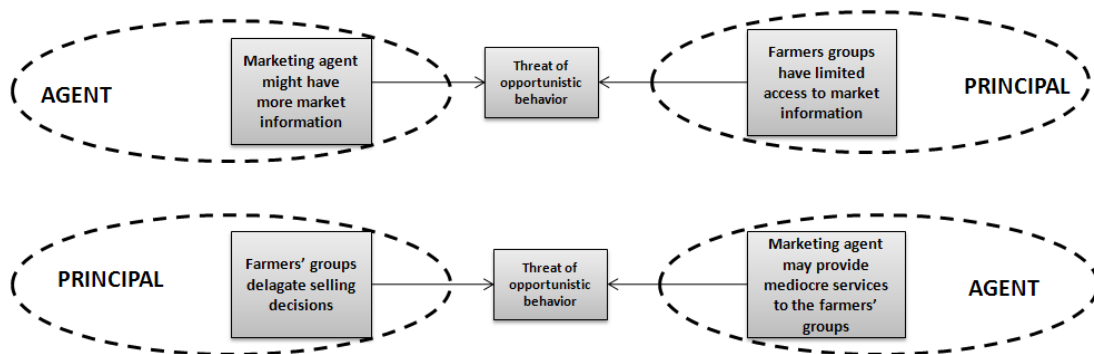


operations. This creates a situation where information is not easily available to the principals and opens a room for opportunistic behavior from the agents.

Furthermore, collective marketing involves delegation of decision making. Farmers' groups by giving power to their organization to sell their crop, delegate all decisions making regarding the marketing system used. Farmers want their products to be sold at a good price and need to have some assurance that their agent will do it well while the agent wants the member to provide good quality products. In these situations, a workable 'middle-way' has to be found to make the deal acceptable both for the member and for the organization.

Agency theory assumes that human beings are inherently risk-averse and self-interested (Eisenhardt, 1989). Mostly agents and principals have divergent preferences for outcomes and these divergences make agents to minimize their own risks in their decisions, at the expense of increasing the risk from the Principal's side. Self interested parties lead also to opportunistic behavior from them. The diagram below adapted from Ton (2010) has been modified to suit our analysis. It represents the marketing challenges which lead to opportunistic behavior.

Figure 3.2 Risk opportunistic behavior challenge.

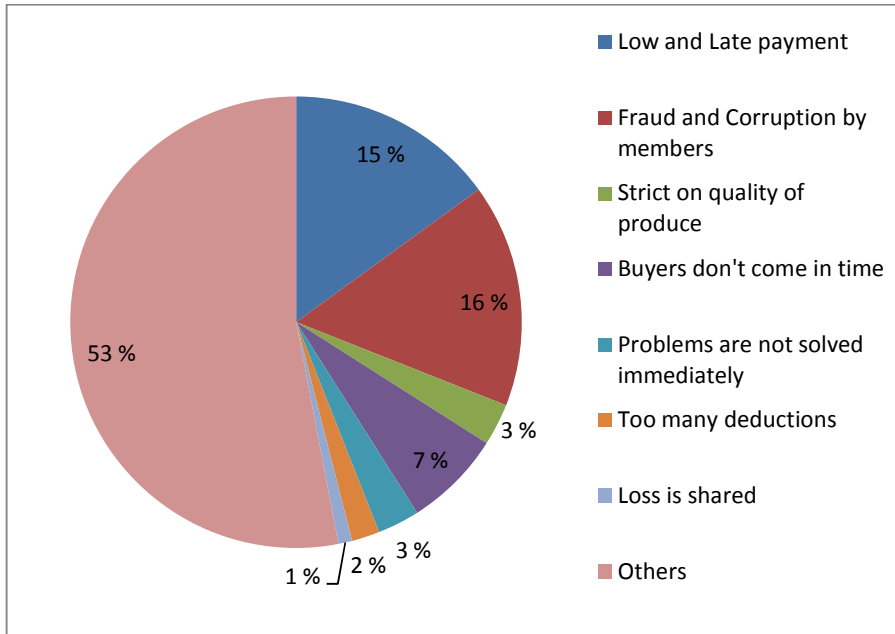


### 3.3.5.3 Reluctance to join farmers' groups

Despite the several advantages of collective marketing, it is a fact that, in Malawi, some farmers prefer to remain alone for growing and marketing their tobacco. There are several

reasons for that choice and the main ones are concerned with low and late payments and fraud and corruption among members as presented by the figure below.

Figure 3.3 Disadvantages to join groups. Source: ICRISAT data 2010



#### 3.3.5.4 Lack of monitoring systems

As said earlier there are no clear collective marketing control systems or monitoring systems so far in Malawi (Otañez et al, 2007). And this is a real handicap for the achievement of high performance of the industry (Egelhoff, 1984). Subba et al. (2008) assert that there is a need to evolve a crystal clear mechanism to regulate the activities when more than one organization come together to achieve stated objectives.

#### 3.3.5.5 Price, attributable costs after sale and quality issue

Tobacco prices are largely influenced by buyers (Jaffee, 2003) and this is due to the market structure itself. In Malawi, most of tobacco leaf is generally sold through the auction floors in which the government used to hold a slight majority of the shares (Nsiku and Botha, 2007). Sales through the auction floors are the object of several charges and taxes including a commission of 3.95% of the gross revenue realized imposed by AHL on sales and fees and payments regarding input credit and tobacco association fee (Jaffee, 2003). In addition to that, from the gross revenue of Malawi growers, AHL deduct 1% for tobacco research contributions for the Agricultural Research and Extension Trust (ARET),

a non-profit organization funded and controlled by TAMA. Also 0.5% is deducted for TAMA's classification and a 0.13% deduction is made for the TCC. Finally a 0.92 US \$ is charged per bale of tobacco. All these levies account for some 3.58% of the gross revenue in addition to the 3.95% retains by AHL and this is very high by international standards.

Another issue strongly related to international buyers is the quality classification system that they have for the Malawian tobacco (Jaffee, 2003). There are differences between the way farmers and buyers classify the tobacco and this often leads to disagreement at the point of sale concerning what constitutes top-grade tobacco (Nsiku and Botha, 2007) and this makes farmers fail to obtain price offers related to the real quality requirements of their tobacco (Kadzandira, Phiri, and Zakeyo, 2004). While this situation indirectly encourages low-grade tobacco, no clear incentives come to support top-grade production (Nsiku and Botha, 2007). Without receiving the expected prices for their product, farmers do not see any interest in improving the quality of their tobacco. This may explain a quality reduction of Malawi's tobacco since the late 90s (Jaffee, 2003). According to Jaffee (2003), there are a number of factors in addition to pricing issues that bring plausibility to the notion of quality reduction of Malawian tobacco. These include:

- The entry and subsequent exit of intermediate buyers has led with time to a confusion regarding tobacco grade from the farmers. Most of these middle-men lacked prior tobacco experience and/or suitable facilities to grade and bale the purchased crop.
- Logistical problems regarding the smallholder tobacco storage and delivery to the auctions and other problems of 'congestion' associated with deliveries to the Lilongwe auction. It is well known that tobacco quality is affected by several factors including storage (Jaffee, 2003). The more the crop waits before reaching the auction floor the more it is likely to lose its value due to bad storage conditions.
- The weak incentives for farmers to produce a high quality crop due to low prices paid on auctions during the mid-to-late 90s for top-grade tobacco compared with the average or below average quality of tobacco.

### **3.3.5.6 Low bargaining power**

Bargaining power refers to the relative capacity to obtain favourable terms from a transaction and is strongly related to access to information, alternative trading options, dependencies, and to the perishability of the product (Bijman, Ton and Meijerink, 2007).

According to (Nsiku and Botha, 2007), prices should be determined at the auction through interactions between buyers and sellers, but the divergences and the farmers' complaints after the sale suggest that farmers are not getting the information they require to earn fair revenues (Nsiku and Botha, 2007) and this brings again the problem of asymmetric information. It appears clearly that farmer groups have low bargaining power when it comes to their products and this is due to the fact that they have usually urgent need for cash to pay back loans and avert inflationary effects. This puts the buyers in a stronger market position than the sellers (Nsiku and Botha, 2007). According to Bijman, Ton and Meijerink (2007), smallholders have particularly low bargaining power when they deal with a crop that needs further processing.

In Malawi, the tobacco buyers have been described as an 'oligopsony' (World Bank, 2005; Otañez et al, 2007) where each of the few buyers exerts a disproportionate influence on the market. And even if TAMA is in the market to represent smallholders, it has limited influence on the auction price (Kadzandira et al., 2004). The low bargaining power of smallholders may lead them to under-value their products and obtain a smaller share of the added value created in the supply chain (Bijman et al. 2007).

### **3.3.5.7 Smuggling and fraud**

The combination of several levies, high taxes and auction fees but also high transaction costs within the tobacco supply chain in Malawi, has led many growers to by-pass the established marketing channel and try to sell their tobacco directly to international buyers in several locations across the borders to Zambia and Mozambique (Jaffee, 2003). It has been reported that 15 per cent of the tobacco on the Zambian market is smuggled from Malawi since it can be worth more money on auction floors there than in Malawi (Nsiku and Botha, 2007). And this is due to different trading systems in those countries. Smallholders are reported to get a better deal as they do not pay the associated costs of the auction system and achieve considerable savings in logistics and transaction costs (Nsiku and Botha, 2007). The tobacco auction floor system in Malawi is clearly undermined by

the growing problem of tobacco smuggling and this should be a warning for the industry (Jaffee, 2003).

Recently, farmers have been required to pay a 7% withholding tax on the revenues obtained through their auction sales and this withholding tax on gross proceeds constitutes essentially an installment payment for income tax (Jaffee, 2003; Nsiku and Botha, 2007). People earning more than 30.000 MK (Malawian Kwacha) are subject to income tax (Jaffee, 2003), and smallholder groups were exempt from this tax due to their constitution. However, this arrangement has been abused by estate owners who registered themselves as 'clubs' and giving a fictitious list of members which lead to a disarray in the grower registration system (Jaffee, 2003).

For sure, the Malawi tobacco subsector is at a crossroads, facing major problems that threaten its sustainability and which pose a number of serious policy questions. It seems that the best days of the tobacco industry in Malawi are behind and all actors of the supply chain have been subjected to accusations about how their actions or inactions have weakened the industry (Negri and Porto 2007).

### ***3.4 Chapter summary***

This chapter was dedicated to present collective marketing and its attributes in general as well as the way it is applied to the Malawian environment. The following chapter will present the research model and the hypotheses.

## Chapter four: Research model and hypotheses

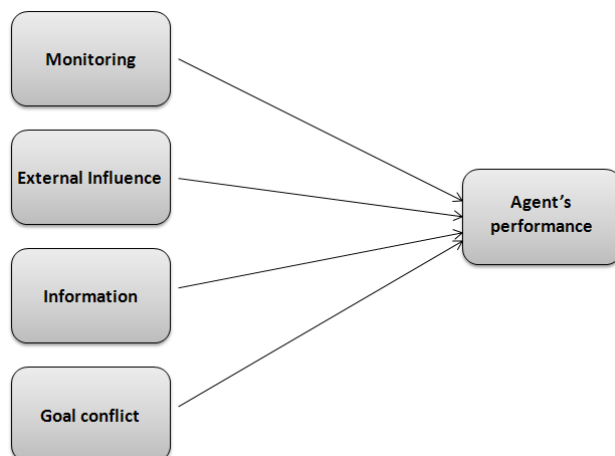
### 4.1 Introduction

The purpose of this chapter is to present the research model and hypotheses for the current study. These hypotheses have been formulated from the model which has been developed from literature review of principal agent theoretical assumptions which was presented in chapter two and discussion of collective marketing in the previous chapter. While many factors influence marketing agent's performance, this study aims at testing a few of them as presented in the model below.

### 4.2 Research Model

This study aims at testing the influence of the developed independent variables on the dependent variable, focusing on how these independent variables can influence the performance behavior of the agent. The dependent variable is agent's performance (PERF) which is influenced by the developed independent variables. These independent variables are Monitoring (MONIT), External influence (EXTI), Goal conflict (GOAL) and Information (INFO). An increase in monitoring and information is expected to have a positive influence on agent's performance because it improves performance, while an increase of goal conflict and external influence is expected to have a negative influence on agent's performance because their increase impairs performance of the respective agents.

Figure 4.1 Research model



### ***4.3 Research hypotheses***

#### **Dependent variable**

##### **Agent's performance**

Performance is a recurrent theme which has been given great attention within the marketing and management discipline and it is of interest of both scholars and managers (Feder, 1965; Venkatraman and Ramanujam, 1986; Vorhies and Morgan, 2003). Performance has been used in most empirical studies to examine a variety of strategic and process issues in organizations (Dess and Robinson, 1984; Ginsberg and Venkatraman, 1985). The concept of performance can be assessed using either financial indicators based on objective data, operational indicators based on perceptual data or both. Financial indicators of performance include profit growth, cash flows and ROI but the availability of these data is difficult due to confidentiality reasons. On the other side, operational performance indicators include customer satisfaction, marketing effectiveness, services or product quality, services value added, training and technological efficiency. Operational data or perceptual data from primary sources are not easily influenced by confidentiality issues, sensitivity and other social issues (Venkatraman and Ramanujam, 1986). Objective performance data is preferable to perceptual performance data, due to its unbiasedness. However, previous research suggests that perceptual measures of performance can accurately reflect objective measures, thus enhancing validity and reliability (Dess and Robinson, 1984).

From the previous chapters, this study focuses on the agent's performance based on operational performance indicators as discussed above. Agent's performance is the dependent variable for this study and it can be influenced by several factors. Based on the agency literature monitoring and information can increase the performance of the respective agent while goal conflict and external influence can impair an agent's performance (Jensen and Meckling, 1976; Wright, 2004; Eisenhardt, 1989; McQuiston, 1989). Since these factors are controllable, their effect on performance should be recognized and understood. Manipulation of these factors can lead to performance improvement. The discussion of each of these factors is presented below.

## **Independent variables**

### **Monitoring**

Agency theory has been widely used in studies to understand how various control mechanisms can be implemented to enhance performance (Welbourne, 1995). Rokkan and Buvik (2003), presents cases related to the absence of proper monitoring systems and highlights that such situations lead to performance evaluation problems and behavioral uncertainty but also to free riding problems from the agent's side. Furthermore, Holmstrom (1982) claimed that free riding results from moral hazard since there is lack of observation of the agent's individual actions by the principal due to asymmetric information. Many scholars have discussed the problems arising from moral hazard and have suggested that the remedy to this problem is for the principal to devote efforts to monitoring the agent's actions (Holmstrom, 1982; Whynes, 1993). In the same vein, Rokkan and Buvik (2003) and Eisenhardt (1985) have highlighted the usefulness of monitoring activities in reducing opportunistic behavior and increasing an agent's performance. However, some authors suggest that peer monitoring might result in lower levels of individual performance and too risk averse employees (Tosi and Gomez-Mejia, 1994; Welbourne, 1995).

According to Jensen and Meckling (1976) and Eisenhardt (1989), monitoring systems serve to control the agent and the agent is more likely to behave in the interests of the principal if the principal systematically can observe the agent's behavior. In this study, monitoring reflects the principal's (farmers groups) ability to observe their tobacco marketing agent's (TAMA) practices and behaviors in marketing activities and related services. Rokkan and Buvik (2003) found the use of tight monitoring to be an effective way to raise performance among supply chain members. From this perception we propose the following:

H1: There is a positive association between monitoring of implemented activities and agent's performance.

### **External Influence**

In the literature about marketing cooperatives, factors influencing the marketing performance of agents have been the interest of many scholars (Lele, 1981; Markelova and



Meinzen-Dick, 2009). These factors can be internal or external to the marketing association. McQuiston (1989) described external influence as the extent to which the communication offered by individual for consideration is considered to affect the actions of other participants. This concept can be extended to include decisions or actions of other interested parties to the decision taken by the organization. Experience from resource management and marketing shows that collective marketing requires a specific enabling external environment, which includes the relationships between farmer groups and the state, market, and civil society (Markelova and Meinzen-Dick, 2009).

According to Chen et al. (2006), the impact of external influence on farmers groups or cooperatives can be either positive or negative. The government and other powerful authorities can positively influence collective marketing, thus the agent's performance by enabling a legal, political and policy environment but also by establishing supportive community power structures which does not subvert the internal democratic procedures and the objectives of the organization (i.e. TAMA). On the other hand, many marketing cooperatives face external influence problems from the political elite who are more powerful and able to control their decision (Lele, 1981). These problems arise due to poor management of the particular marketing association and have a negative impact on their performance. She further stated that the performance of these marketing association tends to be influenced by a broad range of interests from other interested parties which in general view affect its performance negatively. In this study external influence is characterized by the government or other powerful individuals' actions to interfere in the decisions related to the dyad principals and agents. From the discussion above we can hypothesize as follows:

H2: There is a negative association between external influence and agent's performance.

### **Information**

Information has been defined as "data that has been organized or given structure - that is, placed in context - and thus endowed with meaning" (Glazer 1991). Information is a vital tool for any kind of task to operate effectively. Information is viewed as a transferable commodity which can be exchanged between two parties. Well established communication lines leads to explicit commitment and moral persuasion for any relationship (Chou; Chen and Pu, 2008; Eisenhardt, 1989) and also strengthens the

relationship between principal and agent (Glazer, 1991). This implies that the more easily information flows between the two parties, the more the relationship is strengthened and leads to the successful achievement of the goals. Through information sharing, principal and agent build supportive working environment which can help in the improvement of several activities performed by either part.

From the literature, principal and agent need various types of information to pursue their respective obligations depending on the nature of the activities done by the agent or the authority delegated by the principal (Glazer, 1991). The current study focuses on information sharing regarding expected product quality, price, farming techniques, and any other basic information flowing between both sides. Well established information system has a positive impact in the performance of the agent in any field. From this discussion we can hypothesize that:

H3: There is a positive association between information exchange and agent's performance.

### **Goal conflict**

Goal conflict is the degree to which individuals feel that their goals are incompatible (Slocum, Cron and Brown, 2002). Scholars in the principal agent theory highlight that goal conflict is among the causes of the agency problem (Eisenhardt, 1989). And according to Saam (2007), goal conflicts arise out of different preferences of principal and agent since both want to maximize their individual utility. On one hand, the agent wants to maximize his income, while on the other hand the principal wants to maximize his returns. Goal conflict is a wide concept which includes various perspectives like conflicting policy objectives, mismatch between rules and practices, principals and agents having competing interests and/or different goals (Penska and Thai, 2008; Blomberg, 2001). And this concept can help to explain the mismatch between policies requirement and the implementation of farmers' groups and their associated activities.

According to Lele (1998) most of the marketing associations are influenced by several interests apart from those of the members they are serving. Tate et al. (2010) assume that the agent's decisions and decisions which maximize the welfare of the principal frequently conflict due to the bounded rationality of the players and the complexity of contractual

situations between them. In this study goal conflict reflects the mismatch between rules and implementation processes (Schapper, et al 2006) and competing interests between principals (farmers' groups) and agents (TAMA). Agency theory assumes that greater effort by the agent results in greater outcome (Saam, 2007) therefore conflicting goals can lead to organizational performance to appear ambiguous (Wright, 2004). Furthermore, Slocum et al. (2002) highlighted that goal conflict was negatively related to performance. From this discussion we can hypothesize as follows:

H4: There is a negative association between goal conflict and agent's performance.

#### ***4.4 Chapter summary***

In this chapter, the research model and the hypotheses have been discussed. Both model and hypotheses were developed through the review of literature on agency theory and collective marketing. From the research model, four hypotheses have been developed and will be tested in chapter seven. In the next chapter, the research methodology applied in the study is presented.

## **Chapter five: Research Methodology**

### ***5.1 Introduction***

In this chapter, the choice of the research methodology regarding this thesis is presented. In detail, the research design, research method, research settings, geographical area and data collection method are described. In conjunction with this, the research instrument, items of measurements and questionnaire administration are presented in this chapter. Finally, the problems encountered during the data collection are also discussed.

### ***5.2 Research Design***

Yin (1994) states that research design is an action plan for getting from the initial research questions to the conclusions drawn to these questions. Between these two major actions, there may be several others steps and the main purpose of a research design is to help avoid the situation where the evidence does not deal with the initial research questions. There are various types of designs that can be applied in a study and each type is dependent on several factors such as the nature of the study, the research problem, the field of research, and the objective of the study. In the field of research design, descriptive research design is suitable to describe and explain conditions or fully describe a phenomenon as it exists; experimental research design establishes cause-effect nature of relationship between variables via manipulation of the cause, quasi experimental research design approximates the experimental design but does not have a control group (Biscoe, 2003) and correlational research design is suitable when the researcher wants to explore or test relations between variables (Vogt, 1993).

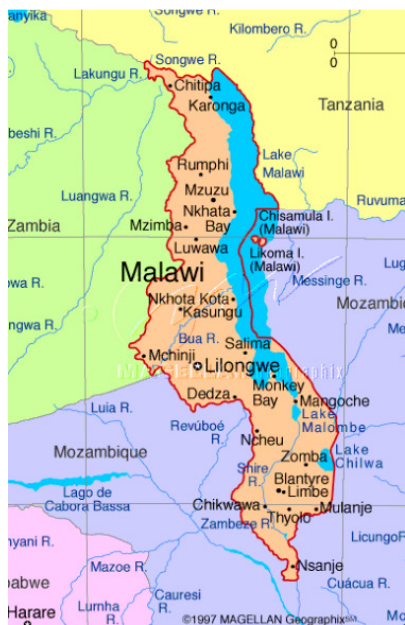
According to Vogt, (1993), a correlational research design is used to describe the statistical association between two or more variables without manipulating them. Therefore, a correlational research design is the most suitable for this study since it aims to analyze the relationship between variables.

### ***5.3 Geographical area and Research settings***

Established in 1891, the British protectorate of Nyasaland became the independent nation of Malawi in July 1964. The country is located in the southeastern Africa and is bordered by Mozambique to the south, southwest and southeast (1,569 km), Tanzania to the northeast (475 km) and Zambia to the northwest (837 km). With 118,484 sq km, the Republic of Malawi is formed by a narrow elongated plateau with rolling plains, rounded hills and some mountains. The land covers 94,080 sq km of area while the water is 24,404 sq km. Malawi counts 28 districts and Malawian climate is sub-tropical with a rainy season (from November to May) and a dry season the rest of the year. The population of the country is about 15,447,500 (2008) with 19% of urban population.

The current study was conducted in Malawi's agricultural sector which comprises smallholder farmers and big estates, specifically in the tobacco industry. Our main focus was smallholder farmers who grow and market tobacco collectively in groups of ten to thirty people, officially known as tobacco clubs, through their marketing agencies. They are self regulated since each group establishes its own rules (Negri and Porto, 2007). The current empirical study was conducted among sixteen (16) tobacco groups where 3 were located in Thyolo District and 13 in Mchinji District in which TAMA tobacco groups are more concentrated. The unit of analysis for this is the marketing association "TAMA" and the relevant data was provided by key informants from tobacco group members. The analytical model used in this study is the Principal-Agent model. In our analysis, we view TAMA as the « agent », acting on behalf of the principals, the group members. As this research is concerned with the factors that influence performance of the « agent » TAMA, we developed some items of agents' performance as perceived by the principals. According to Rokkan and Buvik (2003), this approach of using principals instead of agents themselves tends to reduce the problems related to possible bias which can result from self reporting. It implies that by using principals to collect relevant information regarding the performance of the agent reduces the biasness and reveals the actual performance of the agent.

**Figure 5.1 Map of the Republic of Malawi**



#### ***5.4 Data collection and sampling***

This study uses both secondary and primary data.

##### **5.4.1 Primary Data**

According to Jacobsen (2000), primary data is often collected from specific people or groups of people for the specific research. For this work, primary data collection was achieved through the assistance of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) which is collaborating with Molde University College in some of its research programs. The primary data were collected from key informants –tobacco farmer’s groups- by using a survey data collection technique with closed-ended questionnaire in order to collect information concerning the factors that influence performance of their agent. In order to elicit more information from these farmers, focus group discussions were conducted to give us an overview of the overall situation.

## **5.4.2 Secondary Data**

Secondary Data is existing data that has already been collected for some purpose by other people. Obtaining secondary data in practice is easy compared to primary data (Denscombe, 2007). For this thesis, the secondary data was collected by a desk review of existing journals, articles, reports and data from Malawi smallholder groups to gain a better understanding of the subject and to have a good foundation to build on when collecting the primary data. The data from Malawi were collected from four districts by ICRISAT in collaboration with Molde University College in 2008 and 2010.

## **5.4.3 Sampling**

Sampling is the final stage in the research process before data is collected, and is concerned with identifying the objects for the primary data collection (Denscombe, 2007). Determination of the sample is concerned with several factors such as the type of sample, statistic to be applied, homogeneity of the population, time, money, and personnel availability for the study (Churchill and Iacobucci, 2002). In the current research the sampling frame was tobacco farmers groups that are affiliated to TAMA and this sample was narrowed down to the two districts mentioned above Mchinji and Thiolo. This sampling was done by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), regarding the fact that this study was conducted under one of their projects. From each group, eight members were picked which included the leadership of the group and some other members.

## ***5.5 Items and construct measurements***

In this part, we present the items used in this study. The analysis of these items will be presented from chapter six.

### **5.5.1 Dependent variable**

Agent's performance (PERF) is the only dependent variable which is influenced by several other independent variables. And below are the items used to capture the level of performance of TAMA as perceived by the principals.

PERF1: Our organization delivers our tobacco in time on the auction floor

PERF2: Our organization has good transport system and storage system for our tobacco

PERF3: We are happy with the credits and inputs we receive from our organization.

PERF4: The money we receive after the sale of Tobacco from our organization does not differ with what other similar organization are giving their members.

PERF5: We are not satisfied with the money we receive after the sale of tobacco

### **5.5.2 Independent variables**

Goal conflict (GOAL), Monitoring (MONIT), External influence (EXTI) and Information sharing (INFO) are the independent variables of the study.

The four following items indicate the degree to which the respondents agree with the statements related to the level of goal conflict between them and their agents.

GOAL1: The credits and input we receive in our clubs from our organization differed with other clubs;

GOAL2: Our organization meets the needs of our club;

GOAL3: Our organization serves us according to our objectives;

GOAL4: There are clear clubs and organizational rules;

The level of monitoring was assessed through the degree to which our respondents agreed to the following statements:

MONIT1: We receive enough information from our organization about tobacco sales;

MONIT2: The reports from our organization about tobacco sales are well explained;

MONIT3: We frequently ask our organization to report to us about tobacco sales activities;

MONIT4: We frequently control the way our organization perform tobacco sales activities;

MONIT5: We frequently inspect our organization reports to see if they record the received tobacco properly;



MONIT6: We frequently inspect our organization to see if our tobacco arrives on time in the auction floor;

MONIT7: We are frequently inspecting our organization to see if proper storage materials and transportation materials of tobacco are used;

The three following items were used to assess the degree to which the respondents agree with the statements related to the level of external influence in collective marketing in Malawi.

EXTI1: There are no other people interfering in the sales of our tobacco;

EXTI2: The decision to sell tobacco is made by our organization;

EXTI3: People from the government do not interfere in the sales of tobacco;

The level of information sharing between principals and agents was assessed by the six following items:

INFO1: Communication between our organization and us is very good;

INFO2: We are kept informed by our organization about anything we want to know;

INFO3: Our organization communicates well his expectation on tobacco quality and expected prices;

INFO4: We are being informed by our organization about any changes in tobacco sales;

INFO5: We are being informed about tobacco sales prices using sales sheet only;

INFO6: We are being informed by our organization about what was taking place in auction floor.

These items were measured by a scale using “a b c d” format which were coded after data collection into a “1 to 7” likert scale for better analysis. Also, the negatively worded items were reversed before analysis.

## ***5.6 Questionnaire administration***

Useful and comprehensive literature review of previous studies in Agency theory and performance of both the agent and the principal and collective marketing literature were used to help us to develop our initial questionnaire-scale items. However, due to the language differences between our respondents and the researchers, a translator was used for the whole process.

According to Churchill and Iacobucci (2002) there are several methods to administrate a questionnaire. It can be done either by mail administration, personal administration, fax, telephone and electronic surveys. But there are several factors like time, costs, or logistical support that must be taken into consideration (Churchill and Iacobucci, 2002). Knowing that Malawi is a developing country but also that our respondents were smallholder farmers, we couldn't use the option of mail, post or telephone administration since it is something quite non-existent for them. These facts left personal questionnaire administration as the main method of administrating questionnaire in this study.

The first day, we met three farmers' groups affiliated to TAMA, with thirty respondents. The results from these first meetings enabled us to identify areas to be improved before going further in the field work. It appears to us that the academic language used in our questionnaire was quite difficult to understand for our respondents. Therefore, we decided to refine our questionnaire and the same night the final version was developed.

Before giving the questionnaire to our respondents, the purpose of our study was explained to them at the beginning of each interview. The research questionnaire was distributed to 104 farmers and the total number of questionnaires returned was 86, which made the response rate about 83 %. The main reasons for not returning questionnaire were that some farmers were not able to fill the questionnaire due to their lack of education.

## ***5.7 Problems encountered on the field***

During the data collection process some problems were encountered in the field. These problems are explained below.

- Some of the informants were not able to fill the questionnaire due to the fact that they were not able to write hence their questionnaires were returned blank.

- Despite the close supervision of the researcher during data collection process still some of the questionnaires were improperly filled. This might also be caused by the short time used in data collection process compared to the level of understanding of our respondents. Some informants were filling the same question two times, such questionnaires were dropped during data analysis.
- Despite the presence of the translator we still faced language challenge in the field since most of the farmers cannot speak English; hence it was not easy to communicate with them.

### ***5.8 Chapter summary***

This chapter presented the methodology applied in the current study. The chosen research design and method have been presented as well as the types of data used in the study. The chapter has also presented the geographical area of the study, and the research settings. Furthermore, sampling and data collection process as well as questionnaire administration and data collection problems have been discussed. In the next chapter reliability and validity of measurements are presented.

## **Chapter six: Reliability and validity of measurements.**

### ***6.1 Introduction***

It is an important issue for researchers to ensure that the data, the methods used and the results of their research are credible. The conventional bases for assessing the quality of a research according to Denscombe (2007) are internal and external validity, reliability, and objectivity. In this chapter, the validation of measurements used in this work is presented.

### ***6.2 Descriptive statistics***

It will be an error to omit the step of descriptive statistics since it is the very first step to be conducted and that is recommended before processing any analysis (Tabachnick and Fidell, 2007). The main purpose of this step was first, to help in the checking of errors and other violations of assumptions underlying the statistical techniques used to address our research problem; but also, to describe the characteristics of our data in terms of: measuring the central tendency, the variability and assessing the normality of the distribution.

First, descriptive statistics were used in this work to check for outliers and missing values and the mean and standard deviation of each variable were calculated (see appendix A, Table9.1). Many statistical techniques assume a normal distribution of the variables (Pallant, 2010, p.59) and in this study this assumption was verified through measurement of skewness and kurtosis which indicated a conformance to these normality assumptions.

### ***6.3 Reliability***

According to Gummesson (2000), a study is highly reliable if the results generated can be trusted and if the study is duplicated using the same procedures and methods will give the same results. There are several different aspects to reliability (Pallant, 2010, p.97) and the most commonly used is internal consistency. This is the extent to which all items in a scale are measuring the same construct. A widely used measure of internal consistency is Cronbach's alpha (Pallant, 2010, p. 97; Hair, Black, Babin and Anderson, 2010). Nunnally (1978) recommends ideally values above 0.7 for a satisfactory Cronbach's alpha.

In order to assess internal consistency in this study, we used Cronbach's alpha and the results are quite satisfactory as presented in the table below.

Table 6.1 Items representing different scales and their reliability estimates

Scale	Items of the scale
<p>Performance (4 items) <math>\alpha = 0.773</math></p>	<p>PERF 2: Our organization has good transport system and storage system for our tobacco.</p> <p>PERF3: We are happy with the credits and inputs we receive from our organization.</p> <p>PERF4: The money we receive after the sale of Tobacco from our organization does not differ with what other similar organization are giving their members.</p> <p>PERF5: We are not satisfied with the money we receive after the sale of tobacco.</p>
<p>Goal conflict (3 items) <math>\alpha = 0.801</math></p>	<p>GOAL1: The credits and input we receive in our clubs from our organization is different with other clubs.</p> <p>GOAL2: Our organization meets the needs of our clubs.</p> <p>GOAL3: Our organization serves us according to our objectives.</p>
<p>Monitoring (6 items) <math>\alpha = 0.817</math></p>	<p>MONIT1: We receive enough information from our organization about tobacco sales.</p> <p>MONIT2: The reports from our organization about tobacco sales are well explained.</p> <p>MONIT3: We frequently ask our organization to report to us about tobacco sales activities.</p>

	<p>MONIT5: We frequently inspect our organization reports to see if they record the received tobacco properly.</p> <p>MONIT6: We frequently inspect our organization to see if our tobacco arrives on time in the auction floor.</p> <p>MONIT7: We are frequently inspecting our organization to see if proper storage materials and transportation materials of tobacco are used.</p>
<p>External influence (3 items) <math>\alpha = 0.766</math></p>	<p>EXT1: There are no other people interfering in the sales of our tobacco.</p> <p>EXT2: The decision to sell tobacco is made by our organization.</p> <p>EXT3: People from the government do not interfere in the sales of tobacco.</p>
<p>Information (5 items) <math>\alpha = 0.788</math></p>	<p>INFO1: Communication between our organization and us is very good.</p> <p>INFO2: We are kept informed by our organization about anything we want to know.</p> <p>INFO3: Our organization communicates well his expectation on tobacco quality and expected prices</p> <p>INFO5: We are being informed by our organization about any changes in tobacco sales.</p> <p>INFO6: We are being informed by our organization about what was taking place in auction floor.</p>

## **6.4 Validity**

Validity is concerned with the accuracy of the measurement methods used in the study and Polit, Beck, and Hungler (2001) defined validity as “the extent to which an instrument measures what it is intended to measure”. Three aspects of validity are important: content, criterion referenced, and construct validity (Polit et al; 2001). In this study we considered the construct validity in order to assess the validity of the measurements. According to Tabachnick and Fidell (2007), construct validity is the most important aspect to be assessed. Construct validity refers to whether the operational definition of a variable actually reflects the true theoretical meaning of a concept and it is generally broken down into two subsets: convergent validity and discriminant validity, firstly introduced in 1959 by Campbell and Fiske. According to Shuttleworth (2009), convergent validity is the extent to which scores on a measure are related to scores on other measures of the same construct or similar ones. On the other hand, discriminant validity refers to the degree to which believed unrelated constructs are, in fact, unrelated (Shuttleworth, 2009).

But before conducting any construct validity test, it is important to check for a unidimensionality of the scale (Dunn, Seaker and Waller, 1994). According to Hair et al. (2010), a scale is unidimensional when the items are loading highly on a single factor and in this work, unidimensionality was assessed through factor analysis which is an approach used in the research process to explore relationship among a set of variables (Pallant, 2010, p.181).

### **6.4.1 Convergent validity**

As mentioned above, convergent validity is the extent to which scores on a measure are related to scores on other measures of the same construct or similar ones. Therefore, to establish convergent validity, we need to show that measures that should be related are in fact related. The method used in this study to assess the degree of convergence is average variance extracted (AVE). The AVE indicates the percentage of the variance of a construct explained by an individual item and according a rule of thumb, AVE's values greater than 0.5 are recognized as indicators of convergent validity (Fornell and Larcker, 1981; Dillon, and Goldstein, 1984). Thus, a consequent evidence of convergent validity would be an AVE of .5 or above.

## 6.4.2 Discriminant validity

Even if the AVE can also be used to assess discriminant validity (Fornell and Larcker 1981), this study preferred the use of a confirmatory factor analysis and especially the factor loading generated for each variable. According to Hair et al. (2010), high loadings on a factor would indicate high convergent validity; therefore if we have discriminant validity, the relationship between items from different constructs should be very low. According to Hair, Anderson, Tatham and Black (1998) loadings above 0.6 are considered to be high and those below 0.4 are low. Therefore, the assessment of discriminant validity will be the correlation between similar items and their factor and a good solution will lead to similar items loading high on one factor and low on the others in the rotated matrix solution.

The results of both convergent and discriminant validity are presented in the table below and were according to the literature (Fornell and Larcker, 1981); (Hair, Black and Anderson; 2010), satisfactory.

Table 6.2 Assessment of convergent and discriminant validity; Rotated factor loading solution for Monitoring (MONIT), Information (INFO), External influence (EXTI) and Goal Conflict (GOAL) measures

**Rotated Component Matrix a**

Variable	Component				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
MONIT1	<b>.508</b>	.543	.156	.068	.177
MONIT2	<b>.529</b>	.224	.214	.097	-.131
MONIT3	<b>.838</b>	.099	-.077	-.042	.005
MONIT5	<b>.785</b>	.117	-.044	-.006	.106
MONIT6	<b>.653</b>	.132	.268	.027	.318
MONIT7	<b>.655</b>	.044	.288	.141	.058
INFO1	.124	<b>.754</b>	.052	-.011	.067
INFO2	.294	<b>.560</b>	.246	.084	.168
INFO3	.373	<b>.627</b>	.273	-.018	.137
INFO5	-.016	<b>.687</b>	.173	.280	.120
INFO7	.044	<b>.703</b>	.178	.055	.070



PERF2	.208	.128	<b>.733</b>	-.085	.364
PERF3	.234	.337	<b>.593</b>	-.145	.105
PERF5	.026	.206	<b>.833</b>	.156	-.012
PERF6	.089	.392	<b>.537</b>	.017	.214
GOAL1	.117	-.066	.068	<b>.828</b>	.111
GOAL2	.086	.170	-.026	<b>.803</b>	-.013
GOAL3	-.051	.134	-.026	<b>.866</b>	.001
EXT1	.053	.183	.149	-.074	<b>.854</b>
EXT2	.345	.062	.259	.096	<b>.581</b>
EXT3	-.024	.189	.048	.128	<b>.885</b>
Average Variance extracted (AVE)	0,66	0,67	0,67	0,83	0,77

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

- a. Rotation converged in 6 iterations.

## ***6.5 Chapter summary***

The main focus of this chapter was to discuss reliability and validity of the measurements and methods used in this study. The method used to assess the internal consistency of the scale, and thus reliability, was Cronbach's alpha. And the validity of the constructs measurements was analyzed in two aspects, i.e., convergent and discriminant validity. Convergent validity was assessed by using the Average Variance Extracted method (AVE) while factor loading was used to assess discriminant validity. The next chapter is concerned with the data analysis and the testing the previous stated hypotheses.

## **Chapter seven: Data analysis and hypotheses testing**

### ***7.1 Introduction***

This chapter presents analysis of data. It also includes model estimation and testing of hypotheses. The model estimation used in this study is multiple regression analysis which will be described later in this chapter. But as a starting point, a brief overview of the regression analysis method is presented before the regression model.

### ***7.2 Regression analysis***

Regression analysis is a statistical tool concerned with the investigation of relationships between a set of variables. When in the regression analysis the dependent variable is related to a single explanatory variable it is termed “simple regression” or bivariate regression while it is termed “multivariate regression” when the dependent variable is related to more than one explanatory variable (Sykes, 1992; Gujarati, 2003).

This study uses multiple regression analysis since it involves the use of more than one independent variable. Multiple regression is a technique based on correlation that allows several explorations of the interrelationship among the variables (Pallant, 2010, p.148). According to Pallant (2010, p. 149), there are three types of multiple regression analyses which are:

- Standard or simultaneous multiple regression, where all the variables are entered in the equation simultaneously.
- Hierarchical multiple regression, where the independent variables are moved in the equation in an order specified by the researcher on a theoretical basis.
- Stepwise regression, where the researcher allows the program to select the variables and choose their entering order in the equation.

Multiple regression analysis is a method that makes a lot of assumptions about sample size, multicollinearity, outliers, normality, linearity, homoscedasticity (Pallant, 2010, p.150). Later in this chapter these assumptions will be discussed.

The main estimation methods used in regression analysis are the Maximum Likelihood (ML) and the Ordinary Least Squares (OLS) and according to Gujarati (2003), the OLS method has some very attractive statistical properties that has made it one of the most powerful and popular methods of regression analysis. Therefore, this study also makes use of this estimation method (OLS) to estimate the coefficients of variables under study.

### **7.3 Regression model**

The regression model applied in this study took the following form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \varepsilon$$

Where:

Y= Dependent variable

$X_1, X_2, X_3, \dots, X_n$  = Independent variables

$\beta_0$ = Constant

$\beta_1, \beta_2, \beta_3, \dots, \beta_n$ = Beta coefficient of independent variables

$\varepsilon$ = Error term

By using the OLS method, this study included all the variables in the regression model, thus the final model is the following:

$$PERF = \beta_0 + \beta_1 MONIT + \beta_2 EXT + \beta_3 GOAL + \beta_4 INFO + \varepsilon$$

Where:

#### **Dependent variable**

PERF= Agent's performance

#### **Independent variables**

MONIT= Monitoring activities

EXTI= External influence

GOAL= Goal conflict

INFO= Information

## **7.4 Data examination**

Hair et al (2010) suggest that data examination is the necessary initial step for any kind of research. Therefore, we conducted a close examination of the data from the field work to check whether or not they matched with the several assumptions of multiple regression analysis. Thus test for outliers, normality, homoscedasticity and multicollinearity were assessed.

As part of the data examination, descriptive statistics have been ran first of all in order to present the data in a way that they could be easily understandable. The results of these analyses are presented in the table 9.1 in the Appendix A.

First, we looked for the presence of outliers. An outlier is an observation with a value that is very different from the values for the majority of the other observations. According to Pallant (2010, p.64), outlier identification is important in many applications of multivariate analysis since their presence can alter the result of the study and also the interpretation of these results. There are several methods used to detect outliers and among them, this work used the box plot methods in order to identify the outliers in the data set. Box plot is a simple type of statistical chart that is used to detect outliers in data (Pallant, 2010, p. 64). From this test, it appears no outlier cases. However 17 cases were dropped because they were incorrectly filled. We remain with 69 questionnaires which correspond to 80.2 % of total collected questionnaires. It is also important to note that in this study, we went from individual items to clustered variables by calculating the mean of all items in each variable.

The normality assumption is an extremely important assumption in multivariate analysis (Tabachnick and Fidell, 2007, p.79). It means that the residuals should be normally distributed about the predicted dependent variable scores. The violation of normality can be caused by the sample size (Hair et al, 2010) and it affects the probability of making a wrong decision (Pallant, 2010, p. 151). There are both graphical and statistical methods for evaluating normality. Graphical methods include the histogram and normality plot and statistical methods include skewness and kurtosis. Skewness provides an indication of the symmetry of the distribution while kurtosis provides information on the peakedness of the distribution. Several opinions have been formulated about the interpretation of the skewness and kurtosis values (Hair et al, 2010), (Tabachnick and Fidell, 2007). This study

uses the view of Tabachnick and Fidell (2007) to test for normality and the results are shown in the table 9.2 in the appendix A. Tabachnick and Fidell (2007, p. 79) suggest to divide the skewness or kurtosis value by its own standard error value and then compare it with the standard normal table (Z values); the values should not exceed 3.3 (value for small sample).

Multicollinearity refers to the relationship among the variables involved in the study and it exists when there is a high correlation (generally  $r = 0.90$  or above) between the independent variables (Pallant, 2010, p. 151). Multicollinearity reduces the power of the model to make good predictions and may also cause individual beta coefficients to have a wrong sign (Grapentine, 1997). In this work, we have checked the multicollinearity between our variables by examining the correlation matrix but also by looking at the table of Tolerance and Variance inflation factor (VIF). Tolerance is an indicator of how much of the variability of an independent variable is not explained by the others independent variables in the model (Pallant, 2010, p.158) and a commonly given rule of thumb is that any tolerance value of 0.1 or below, raises the concern of multicollinearity. VIF is just the inverse of tolerance and any VIF value of 10 or higher would indicate multicollinearity. The findings for both methods were consistent to the rule of thumb and are presented in the table 9.3 and 9.4 in the Appendix A.

The assumption of homoscedasticity is that the variance of the residuals about predicted dependent variable scores should be the same for all predicted scores (Pallant, 2010, p. 151). This assumption is also related to the normality assumption, which will be discussed later, since heteroscedasticity (violation of the assumption of homoscedasticity) occurs when the variables are not distributed in a normal manner (Tabachnick and Fidell, 2007, p.85). Thus, checking that your data are normally distributed should cut down on the problem of heteroscedasticity. But in multiple regression analysis, homoscedasticity can be assessed by looking at the scatterplot of the standardized residuals and according to Tabachnick and Fidell, (2007, p. 85) the residuals must be roughly rectangularly distributed, with most of the scores concentrated in the center. The scatter plot of residuals is presented in Appendix A, figure 9.1, and this figure does not show clearly the absence of heteroscedasticity.

## 7.5 Regression estimation

After we assessed the several assumptions for regression, the constructed regression model was applied for statistical estimation. As presented below:

Table 7.1 Results of multiple regression analysis

Model	Unstandardized Coefficients		Standardized coefficients	t
	B	Std. Error	Beta	
1 (Constant)	1.298	.939		1.382
GOAL	-.075	.109	-.070	-.688
MONIT	.216	.108	.208	1.997
INFO	.525	.129	.479	4.077
EXTI	-.077	.135	-.058	-.569
Dependent variable: PERF Model fit: $F(4.64) = 9.457$ $R^2 = 0.371$ $R^2 \text{ Adj} = 0.332$				

From the estimation above, we extracted the following regression model:

$$\text{PERF} = 1.298 - 0.075 \text{ GOAL} + 0.216 \text{ MONIT} + 0.525 \text{ INFO} - 0.077 \text{ EXTI} + \varepsilon$$

The significance of the overall model was the first step to do before even starting to interpret the results from the above model. The ANOVA (Analysis of Variance) table provides us with the F-test which assesses the significance of the overall model. Regarding this test, the overall model was found to be good with  $F(4.64) = 9.457$  and significant at  $p < 0.01$  (results presented in the appendix A, table 9.5). The  $R^2 \text{ Adj} = 0.332$  which means that 33.2% of the total variation in the level of agent's performance can be explained by the model and the remaining percentage is explained by the variables that have not been included in the model. The  $R^2$  measures the percentage of variation in the dependent variable that can be explained by the independent variables. According to Newbold, Carlson and Thorne (2010, p. 464), the value of  $R^2$  ranges between 0.10 to 0.20 for models based on data collected from individual people. In this study the  $R^2$  was found to be

acceptable with a value of 0.371 which means that 37.1% of the variation in the dependent variable (PERF) is explained by the variation of the independent variables (GOAL), (MONIT), (INFO) and (EXTI).

The table of regression results shows, first of all the association between our dependent variable, Agent's performance (PERF) and the independent variables Monitoring (MONIT), Goal Conflict (GOAL), External Influence (EXTI) and Information (INFO); but also the statistical estimations of the variables in the model.

The statistical analyses show that Monitoring (MONIT) is positively associated with the dependent variable agent's performance (PERF) at the significance level of  $p < 0.05$ ; with  $b = 0.216$  and  $t = 1.997$ . This means that if monitoring increases by one unit and the others variables stay unchanged; agent's performance will increase by 0.216 units. The estimate "b" represents the computer's attempt to find the equation that best summarizes the data under study and the t-value is the ratio of the estimate divided by the standard error.

Information (INFO) is also positively associated with agent's performance and at the significance level of  $p < 0.01$ ,  $b = 0.525$  and  $t = 4.077$ . As the level of information between TAMA and the farmers increases by one unit, while the others variables stay unchanged, the level of agent's performance increases by 0.525 units.

Then on the other hand, the level of external influence is negatively associated to the level of agent's performance,  $b = -0.077$  and  $t = -0.569$ ; but this relationship is not really significant with  $p > 0.1$ . Which means that, as the level of external influence increases by one unit while the other variables remain unchanged, the level of agent's performance will decrease by 0.077 but it is important to notice that this change is insignificant.

Also, goal conflict has a negative association to the level of agent's performance. With  $b = -0.075$  and  $t = -0.688$  but this relationship is not really significant at  $p > 0.1$ . From that we say that the level of agent's performance will decrease from 0.075 if the level of goal conflict increases by one unit while the others variables stay unchanged but again according to the statistical estimations, this relationship is not significant.

## ***7.6 Hypotheses testing***

Now that we have interpreted the statistical results found, the several hypotheses formulated earlier in the chapter 4 will be tested based on the data analysis results. The four hypotheses were as follows:

H1: There is a positive association between Monitoring and the level of agent's performance.

H2: There is a negative association between External influence and the level of agent's performance.

H3: There is a positive association between Information exchange and the level of agent's performance.

H4: There is a negative association between Goal conflict and the level of agent's performance.

The hypothesis 1 is supported by the statistical regression estimation and is significant. The statistics ( $b = 0.170$ ,  $t = 1.997$ ,  $p < 0.01$ ) reveals the presence of a positive association between Monitoring (MONIT) and the level of agent's performance (PERF) as proposed by the hypothesis before we conduct the data collection.

In the hypothesis 2, we expected a negative association of external influence (EXTI) to agent's performance (PERF) and this is what the statistical estimation shown with  $b = -0.064$ . However, this indication is not statistically significant as indicated by the presented results.

The hypothesis 3 is supported by the statistical regression estimation and is also significant as for the first hypothesis.  $b = 0.386$  and  $t = 4.141$  signifies the presence of a significant positive association between Information (INFO) and agent's performance (PERF).

Finally, the Hypothesis 4 is also supported by the statistical regression estimation since the actual sign of "b" was negative as expected and shows a negative association between Goal conflict (GOAL) and agent's performance (PERF).  $b = -0.047$  and  $t = -0.659$ . However, as for the second hypothesis this result was not statistically significant.



Table 7.2 Summary of hypotheses testing

Hypotheses	Hypothesized effect	Findings
Hypothesis 1	+	+***
Hypothesis 2	-	-
Hypothesis 3	+	+**
Hypothesis 4	-	-

\*\* significant at  $P < 0.05$

\*\*\* significant at  $P < 0.01$

### ***7.7 Chapter summary***

This chapter was assigned to present and explain the model estimation as well as the testing of the hypotheses. The present results from regression analysis indicate that out the four formulated hypotheses, two are supported by the data. The next chapter will be devoted to further discussion of the findings but also present the limitations of the study and propose some area for future research.

## **Chapter eight: Discussion, summary, and limitations of the study**

### ***8.1 Introduction***

In this final chapter the findings will be discussed in view of the literature on both agency theory and agricultural marketing. The chapter will also present the summary of the study and some recommendations. The limitations of this study will be also highlighted and in the last part of this chapter suggestions for further research will be given.

### ***8.2 Discussion***

The estimated coefficients presented in section 7.5 warrant some further discussion. In the extent of collective marketing literature most of the attention has been given to the empirical studies on factors influencing farmers' groups' marketing performance (Barham and Chitemi, 2008). Our study deviates from this main stream and contributes to addressing factors influencing the marketing performance of the agents working on behalf of the farmers group in marketing their produce. We based our hypotheses on agency theory literature. These hypotheses were tested for empirical authentication and no result was contrary to our expectations; although some were not significant.

The coefficient estimate on the variable MONIT represent our test of the hypothesis regarding the influence of principal's monitoring on the agent's performance. The coefficient estimate supports the presence of a positive association between monitoring and agent's performance which coincides with our first hypothesis that there is a positive association between monitoring and agent's performance. This indicates that establishment of strong monitoring systems makes the agent act in accordance with principals interests. Agents sometimes can be reluctant to deliver clear reports on what they are doing to the principals. Due to uncertainty and informational asymmetry problems in business environment, principals need to establish close monitoring system which can help to make a follow up of agent's performance. Regular inspections of sales report, field observation, and inspection of marketing activities are some of monitoring examples which can help in monitoring the agent behavior.

Even though monitoring systems are costly to the principal, their positive impact on performance makes them to be of crucial importance to be used by the principal in any

principal agent relationship. In collective marketing activities done by the agent, establishment of effective monitoring system is of critical importance in order to make the group sustainable. The group should be able to observe how the agent is doing and have a regular review of agent's performance report. According to Subba et al. (2008) regular monitoring and review systems are the key determinants of successful collective marketing. In general there is a relatively weak power structure from the farmers' group point of view to stand firm in those monitoring systems. In such an environment supportive monitoring systems are urgently needed to promote the compliance behavior of an agent (Rokkan and Buvik, 2003). This discussion is also supported by the available literature and studies who explained the usefulness of monitoring system in reducing the agent's deviations (Rokkan and Buvik, 2003).

The coefficient estimate on the variable EXTI represents our test of the hypothesis about the relationship between external influence and the agent's performance. This hypothesis is not contradicted by our findings. However the relationship is not significant and this could be theoretically explained (see Olson, 1965; Truman, 1951). The potential impact of external influence on marketing agent's performance in agriculture in developing countries has long been recognized (Roumasset, Boussard and Singh 1973; Hazell, Bassoco, and Arcia 1986). However, it remains empirically difficult to assess it due to heavy data requirements (long time series) even though some methods have been developed (Dillon and Scandizzo, 1978; Antle, 1987).

Furthermore it is important to consider the motivation and ability of smallholders to participate in collective marketing under the conditions of high government pressure but also group pressure. And it is also important to consider the context of collective marketing in Malawi. According to Truman (1951), group pressure or government pressure are not new in the world, especially in Africa where there are challenges presented by lack of complete freedom. Moreover, field studies of collective marketing problems generally find that external influence vary from extremely high to extremely low across different settings (Ostrom, 2000). In the case of Malawi, the government has established and empowered all the several institutions dealing with tobacco and still has an invisible hand in their activities. This is a "centralized" system since all the organizations in Malawi in charge of tobacco are somehow linked in their decision making and farmers' group management (Otañez et al, 2007). This does not create a sense of democratic community and does not help to protect liberties, since power relations and institutional

environment are often to the disadvantage of the poor (Inman and Rubinfeld 1997). Therefore, it is not obvious that farmers use their “voice” option to point out incapable or corrupt actors, especially when it involves superior authorities (Litvack, Ahmad, and Bird 1998). Also, the lack of prerequisites in the area, combined with an inadequate understanding of the study in which they were participating may have biased the responses to the questions.

The coefficient estimate on the variable INFO represents our test of the hypothesis that mutual information has a positive effect on the agent’s performance. Here, our empirical finding coincides with our hypothesis. According to the theory of value, information is considered as a commodity that can be exchanged between two parties conducting transactions leading to exchange facilitation (Bell, 1973; Haeckel, 1985). Information is considered as self regenerative so that the identification of a new piece of knowledge directly creates the demand and conditions for immediate creation of subsequent pieces. Information is among the variables that lead to performance improvement in marketing activities (Glazer, 1991). The level of information possessed by the marketing agents is a key determinant of market power (Glazer, 1991).

Establishment of effective and efficient communication lines in any relationship results into commitment and moral persuasion of respective parties (Chou et. al., 2008). In case of a principal agent relationship there should be a good flow of information sharing process in order to achieve goal congruency. This strengthens the relationship and simplifies the communication process between the two parties. We argue that information sharing regarding issues like expected prices and product quality, tobacco production and storage process, and obligations of each part will lead to sustainability of the relationship and trust between both parties which will act as a catalyst to enhance agent’s performance. In addition to that, market information can lead to the improvement of marketing activities. Therefore there should be a well established information flow system between the two parties. However, due to the weak position of farmers as principals, supportive information gathering systems should be established for them to be in a better position to acquire that information timely.

Our final finding regards the hypothesized relationship between goal conflict and agent’s performance, represented by the coefficient estimate on the variable GOAL. This result is not contrary to our expectations, but it is statistically insignificant. Though it’s not

statically significant, it acknowledges the concept of goal conflict in the principal-agent literature (Eisenhardt, 1989). Goal conflict results due to informational asymmetry problems. From our findings we can argue that the relationship between goal conflict and agent's performance was insignificant due to the fact that the nature of environment in which collective marketing is conducted in Malawi is associated with weak relative power between farmers themselves and their agent. Due to this power imbalance we believe that it is difficult to get exhaustive information regarding this construct since principals are on the weak side. Furthermore, lack of clarity in explaining rules and obligations of each part of the relationship can be one of the reasons for this finding. Also from a theoretical point of view there is a critical need to develop new theory that will explain the other forms of goal conflicts like competing policies and rules.

### ***8.3 Summary of the study***

The central theme through this thesis has been to explain what factors influence agent's performance in the context of collective marketing with empirical evidence from the Malawian tobacco industry. Agency theory was used to develop a theoretical framework where smallholder groups were the principal and the marketing association the agent. The relationship between principal and agent were used as unit of analysis in this work. Previous literature in the field of collective marketing has used agency theory to explain marketing performance of the smallholders group (Barham and Chitemi, 2009; Bernard and Spielman, 2009) but very few have tried to explore the collective marketing performance of the agent especially from the principal's point of view. And this is what this work has endeavored to do.

As outlined previously in the thesis, there are several factors that influence agent's performance such as monitoring, information, goal conflict, external influence. Our thesis supports the argument that these factors affect agent's performance and our theoretical model contains four hypotheses presented in chapter four. From these hypotheses we expected information and monitoring to have a positive influence on collective marketing performance. While we expected that goal conflict and external influence have a negative association with collective marketing performance. In order to test our hypotheses, data collection has been conducted in the tobacco industry in Malawi. The study was conducted using a correlational research design in order to study the association between our variables. By using multiple regression analysis and factor analysis, our regression model

was generated and is presented in table 7.1 in chapter seven. Generally the overall model was statistically supported and is presented in the appendix A table 9.5.

Our hypotheses were tested based on the regression model and all of them were supported. However two were insignificant. The findings revealed that the negative association between external influence and agent's performance as well as the negative association of goal conflict and agent's performance were not significant based on the generated model. The reasons for these findings have been discussed in the section above.

### ***8.4 Recommendations***

This section contains a number of recommendations based on the results and experience with collective marketing in Malawi during the research.

- **Incentive compensation system**

It has been noted that incentive system between Malawi tobacco groups and their agent TAMA is not well defined or established. There is no clear incentive flowing from principals to the agent as the motivation of the agent performance behavior. Since incentive plays a great role in inducing the agent to perform in accordance with the principals interest we recommend that the farmers groups should establish good reward incentive system for example increase the current percentage of the amount of money paid to the agent after the sale of the tobacco. On other side they should also focus on producing high quality tobacco which will motivate the agent to devote more effort of bargaining for better price. Also farmers groups should be faithful in repaying back any credit offered through their TAMA this will motivate the TAMA to link the famers groups to many financial institutions. In addition to that farmers groups should make sure that they use the right supply chain through TAMA to sell their tobacco and avoid any intermediaries this will fulfill the objectives of TAMA and motivate this agent to offer better services to the farmers groups.

Due to weak position of farmers as principals we recommend that the government should play a great role in rewarding the agent so that TAMA can be motivated more to help these farmers groups. Also we recommend that government extension workers who support the growing of the tobacco should put more emphasis on high tobacco quality which will be in

a better bidding position on the auction floor. This will act as a motivation to TAMA to work hard on behalf of the farmers groups.

- **System decentralization**

As discussed previously in this study, the decisions regarding the tobacco sector in Malawi are highly centralized within the powerful institutions which often do not consider the opinion of the farmers (Otañez et al, 2007). It would be important to decentralize this system in order to give more power to the smallholders which feel unconsidered. Decentralization helps to change the existing power structures, improves participation since it engages the disenfranchised in the decision processes and neutralizes the power of local oligarchies (Bardhan, 2002; Di Gregorio et al. 2004). Di Gregorio et al. (2004) in their study have highlighted the fact that it is quite impossible for smallholders who have limited access to education and training to be a part of the administration and this calls for more empirical studies to help to develop new theories in order to explain on circumstances appropriate for a particular type of power delegated to these smallholders. But by giving them more power, the farmers will be able to have more incentives to motivate their agents and increase their performance. In addition, a decentralized system lead to an increase in the competition resulting into lower prices and better services to the poor, especially regarding the delivery of public services (Litvack, Ahmad, and Bird 1998).

- **Institution competition**

It has been noted TAMA is the most powerful agent in Malawi tobacco industry. There is no intensive competition in this sector. We recommend that the government should allow other institutions to work on behalf of these farmers groups on the auction floor. The introduction of this competition will give more power to farmers groups to choose which agent they want to work with depending on the performance of that particular agent. To win these customers each agent will also strive to offer better services. Through this intensive competition we believe that the performance of agents will increase and improve the working environment of this industry.

## ***8.5 Limitations of the study***

Much remains to be done to identify and analyze the factors influencing the agent's performance. Some of the limitations of this study point the way to some interesting research topics. Primarily the study's coverage was limited. Malawi's tobacco sector involves several growers such as estates and smallholder groups. This study deliberately focused on the smallholders for consistency purpose since smallholders are the one concerned with collective marketing. In addition to this, Malawi is divided into 28 districts and each of these districts includes several farmers' groups. Data collection for this work was conducted in only two districts: Thyolo and Mchinji. Therefore, the small coverage and numbers of observations raise a caution for generalizing the findings to cover the entire sector. Since tobacco crop is different from other crops due to its cash crop property, some of the findings may not be applied beyond the context of tobacco crops.

Furthermore, when exploring the factors influencing agent's performance, we have narrowed down our work to four dependent variables that could explain our independent variable. Since other areas of interest might have been left out, this work cannot fully explain collective marketing performance taking in account all the potential factors that can influence it. According to Agrawal (2001), it is not rare that empirical studies typically address only a subset of the factors identified in the literature, but these missing data inevitably limits the analysis. Therefore this missing variable constitutes also a limitation for our study.

Finally, scientific literature in collective marketing in developing countries using agency theory was quite inexistent; and this is also responsible for some limitations in this work. Most of the literature used in this work to develop the research model was based on developed countries settings. Collective marketing in developing countries is still far from the one of developed countries in terms of economical ways and welfare effects of geographical indications (Lence, Marette, Hayes and Foster, 2007). Such differences in various aspects may influence the ability of the study to describe the correct scenario. That is, different results may be found if the study was conducted in a developed country.



## ***8.6 Areas for further research***

This study is concerned with agent's performance from the principal perspective in collective marketing context. Therefore information has been gathered only by key informants from one part of the relationship; the farmers. It could be interesting for further research to collect information from key informants from both side of the relationship since additional insight could be probably discovered by doing so.

Furthermore since this work examined the factors influencing agent's performance in Malawi's tobacco industry, it can be interesting to conduct the same study using another industry (e.g. maize or groundnuts) or also in another African country to see whether the results are still valid when there is a change in the research settings.

In this study the theoretical framework was established using agency theory and as pointed in the previous part of this chapter, this work was narrowed to four variables. Further studies should therefore not only consider looking for additional contributions to factors influencing collective marketing performance but strongly consider studying how agent's performance affects the relationship between principals and agents.

Finally, this work were concerned with the operational dimension of performance and further research on the same topic can consider to look at the financial dimension of performance to see whether or not it is influenced by the factors used in this study.

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## **Appendix A**

**Table 9.1 Descriptive statistics**

Descriptive Statistics			
	N	Mean	Std. Deviation
GOAL	69	3.06	1.507
MONIT	69	5.16	1.557
INFO	69	5.14	1.478
PERF	69	4.56	1.619
EXTI	69	4.21	1.211
Valid N (listwise)	69		

**Table 9.2 Test of normality by z scores of skewness and kurtosis**

	Skewness		z scores for skewness	Kurtosis		Z scores for kurtosis
	Statistic	Std. Error		Statistic	Std. Error	
GOAL	,849	,289	2,939	,369	,570	0,646
MONIT	-,698	,289	-2,416	-,401	,570	-,0704
INFO	-1,066	,289	-3,692	,422	,570	0,740
PERF	-,551	,289	-1,906	-,982	,570	-1,721
EXTI	,001	,289	0,003	-,911	,570	-1,597
Valid N (listwise)						

**Table 9.3 Tests for collinearity**

**Coefficients<sup>a</sup>**

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
EXTI	.961	1.040
GOAL	.955	1.047
MONIT	.754	1.327
INFO	.711	1.407

a. Dependent Variable: PERF

**Table 9.4 Bivariate correlation of variables**

		GOAL	MONIT	INFO	EXTI	PERF
GOAL	Pearson Correlation	1	.137	.207	-.010	.059
	Sig. (2-tailed)		.263	.087	.933	.632
	N	69	69	69	69	69
MONIT	Pearson Correlation	.137	1	.491**	-.024	.435**
	Sig. (2-tailed)	.263		.000	.848	.000
	N	69	69	69	69	69
INFO	Pearson Correlation	.207	.491**	1	-.180	.577**
	Sig. (2-tailed)	.087	.000		.138	.000
	N	69	69	69	69	69
EXTI	Pearson Correlation	-.010	-.024	-.180	1	-.148
	Sig. (2-tailed)	.933	.848	.138		.224
	N	69	69	69	69	69
PERF	Pearson Correlation	.059	.435**	.577**	-.148	1
	Sig. (2-tailed)	.632	.000	.000	.224	
	N	69	69	69	69	69

\*\* . Correlation is significant at the 0.01 level (2-tailed).

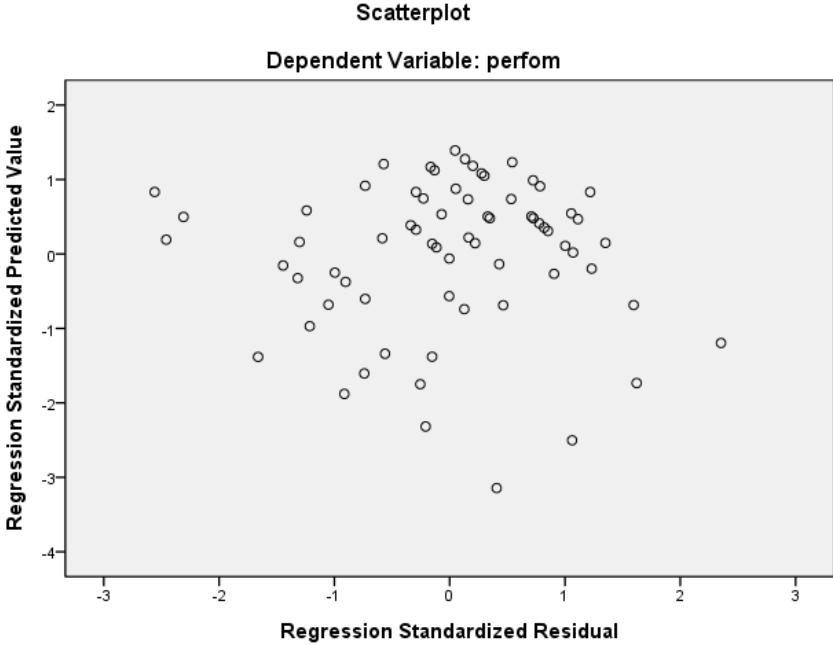
**Table 9.5 Analysis of variance and overall model significance**

		ANOVA <sup>b</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.293	4	16.573	9.457	.000 <sup>a</sup>
	Residual	112.163	64	1.753		
	Total	178.457	68			

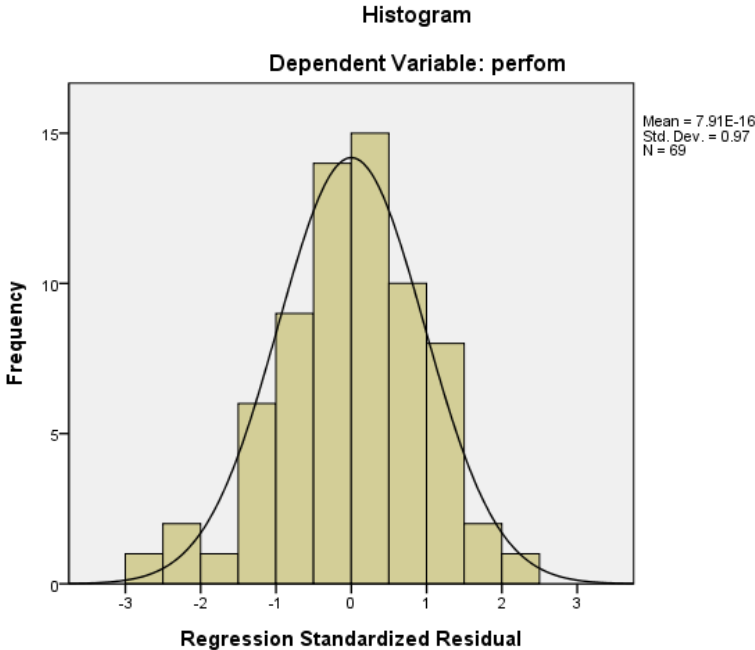
a. Predictors: (Constant), INFO, EXTT, GOAL, MONIT

b. Dependent Variable: perfom

**Figure 9.1 Test of heteroscedasticity**

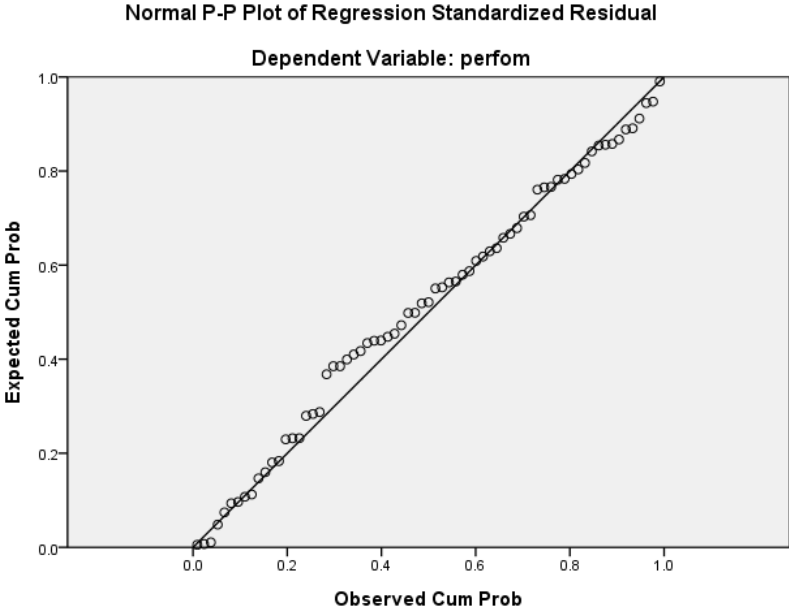


**Figure 9.2 Test of normality by histogram**





**Figure 9.3 Test of normality by normal P-P plot**



**Appendix B**  
**Survey Questionnaire**

This survey focuses on the factors that influence agent's performance in Tobacco industry in Malawi. By answering this questionnaire, base your answers on your experience with your association.

A. Please circle only once the letter that corresponds to your views on each of the following statement:	
1. Our organization delivers our tobacco in time on the auction floor	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree
2. Our organization has good transport system and storage system for our tobacco	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree
3. We are happy with the credits and inputs we receive from our organization	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree
4. The money we receive after the sale of Tobacco from our organization does not differ with what other	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree

similar organization are giving their members	
5. We are not satisfied with the money we receive after the sale of tobacco	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree

B. Please circle only once the letter that corresponds to your views on each of the following statement:	
1. The credits and input we receive in our clubs from our organization differed with other clubs	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree
2. Our organization meets the needs of our club	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree
3. Our organization serves us according to our objectives	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree
4. There are clear clubs and organizational rules	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree

C. Please circle only once the letter that corresponds to your views on each of the following statement:	
1. We receive enough information from our organization about tobacco sales	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree
2. The reports from our organization about tobacco sales are well explained	(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree

<p>3. We frequently ask our organization to report to us about tobacco sales activities</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>4. We frequently control the way our organization perform tobacco sales activities</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>5. We frequently inspect our organization reports to see if they record the received tobacco properly</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>6. We frequently inspect our organization to see if our tobacco arrives on time in the auction floor</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>7. We are frequently inspecting our organization to see if proper storage materials and transportation materials of tobacco are used</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>

<p>D. Please circle only once the letter that corresponds to your views on each of the following statement:</p>	
<p>1. There are no other people interfering in the sales of our tobacco</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>2. The decision to sell tobacco is made by our organization</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>3. People from the government do not interfere in the sales of tobacco</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>

<p>E. Please circle only once the letter that corresponds to your views on each of the following statement:</p>	
<p>1. Communication between our organization and us is very good</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>2. We are kept informed by our organization about anything we want to know</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>3. Our organization communicates well his expectation on tobacco quality and expected prices</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>4. We are being informed by our organization about any changes in tobacco sales</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>5. We are being informed about tobacco sales prices using sales sheet only</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>
<p>6. We are being informed by our organization about what was taking place in auction floor.</p>	<p>(a) Agree (b) Strongly agree (c) Disagree (d) Strongly Disagree</p>