

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Tropical AgriSciences



**The Willingness of Kenyan Farmers to Join
Cashew Marketing Cooperatives**

Bachelor's Thesis

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Declaration

I hereby declare that I have done this thesis entitled ‘The Willingness of Kenyan Farmers to Join Cashew Marketing Cooperatives’ independently. All texts in this thesis are original, and all the sources have been quoted and acknowledged utilizing complete references and according to Citation rules of the FTA.

In Prague 15. 4. 2022

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Abstract

In the past, cashew cooperatives worked very successfully in the coastal parts of Kenya. However, nowadays, there are no cashew cooperatives present in these regions. This thesis, therefore, aimed to investigate Kenyan smallholder cashew farmers' willingness to participate in cashew marketing cooperatives and under which terms they would be willing to join. Qualitative data were formed according to the Theory of Planned Behavior and were obtained from personal interviews with farmers and key informants and focus group discussions with women's groups. The results showed the main benefits of forming a cooperative are social capital in terms of sharing advice and knowledge and economic benefit in higher selling prices leading to improved living standards. The main obstacles to forming cooperatives are a lack of cooperation among the farmers and bad experiences from the past. This region also lacks a natural leader that would establish a group. A further problem is an economic aspect. Farmers are not willing to pay fees or any other charges in the cooperatives. In addition, farmers do not feel skilled enough to be part of cooperatives, even after being trained on the cashew trees' overall care. Recommendations are included at the end of the thesis with ideas on improving the situation with smallholder cashew farmers and cooperatives. The key recommendation is to find natural leaders who could try to establish cooperative groups and motivate and guide others.

Keywords: Agricultural cooperatives, Theory of Planned Behavior, Willingness to join, Motivational factors

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List of the abbreviations used in the thesis

NGOs – Non-Governmental Organizations

FGD – Focus group discussions

TSA – Ten Senses Africa

SACCO – Savings and Credit Cooperatives Societies

FTA – Faculty of Tropical Agrisciences

TPB – Theory of Planned Behavior

EU – European Union

GPS – Global Positioning System

GDP – Gross domestic product

KSh / KES – Kenyan shilling

NCPB – National Cereal and Produce Board

MIT – Mutual Incentives Theory

1. Introduction

Agriculture in Africa has a substantial social and economic footprint. Over 60 % of Sub-Saharan Africa consists of smallholder farmers, and about 23 % of the GDP comes from Agriculture in those areas (Goedde et al. 2019). This Sub-Saharan African region has excellent climatic conditions, which means a tropical climate with high temperatures that support the production of diverse crops. Sub-Saharan Africa benefits from cultivating traditional crops such as rice, sorghum or cassava. The benefits also come from the new cash crop – cashew. This crop comes mainly from the Northern part of South America, and in Africa particularly, it sprung up naturally or due to smallholder farmers about 500 years ago (Muniu et al. 2019). According to Monteiro et al. (2017), Sub-Saharan Africa can take credit for 45 % of worldwide cashew production in 2015. Reaching these figures can be attributed to the importance of harvesting. As a result, cashew production in these regions has maintained an important position among smallholder farmers, providing positive economic and social impacts. On the other hand, cashew production has been under agricultural intensification in terms of cultivation and processing in this part of Africa, thus leading to the development of sustainable practices among its producers (Monteiro et al. 2017). For example, modern irrigation, the use of pesticides, or improved crop varieties to follow the green revolution values (Monteiro et al. 2017).

Among the Sub-Saharan African region belongs Kenya, where agriculture is the mainstay of the economy. According to statistics, as of 2013, the sector alone contributed 25 % of their total GDP, accounting for 65 % of the country's total export and providing 18 % of formal employment (FAO 2021). Agriculture in the country is extensive and complex, with many public, parastatal, non-governmental, and private sectors. According to Kenya Agricultural & Livestock Research Organization, the economic benefit from cashew is about 397.4 million KES annually (Muniu et al. 2019). This equals about 3,48 million USD and 15,000 metric tons of cashew nuts. This production is created mainly by smallholder farmers, who count for approximately 68,000 individuals in Kenya. Through cashew cultivation, more employment can be provided as well as stable or improved income for the farmers.

Kenyan cashew production faces several constraints these days, even though there is still enormous potential to be harnessed in cashew production and processing in Kenya.

This could be achieved by reviewing the challenges farmers face in their production, such as lack of certified seeds, old age of orchards, gaps in the cashew value chain, obsolete and expensive processing technology, and limited access to finance. Moreover, the processing technologies are expensive for individual farmers (Gitari 2020). These problems may be resolved by farmers forming cooperative groups to gain more financial assistance for their production, thus ensuring a more stable production level (Grashuis & Ye 2019). If cashew cooperative groups operate, even social benefits can be guaranteed for the farmer. See more related to this problem in subchapter 2.2. Cashew Nut Industry and Production.

Organizing producer groups has been an essential strategy towards tackling the problems in the agricultural sector, cashew business included, in most developing countries among smallholder farmers, Kenya in particular (Wanyama 2014). The limited support of the state and the opening of domestic markets call for collective movement by farmers. As a result, cooperative actions have emerged as an essential aspect of agricultural development, especially for rural economies (Falkowski & Ciaian 2016). Producer groups can help farmers benefit from economies of scale, reduce transaction costs, and reduce risk related to transactions, thus creating some balance in the market power and make up for the state or government (Valentinov 2007). Even so, producers groups generate employment for women and youth as well as enhance livelihoods in general (Markelova et al. 2009; De Noni et al. 2017; Scholz 2019). Kenya experienced a decline in cashew production as many of the farmer groups collapsed during the liberalization of the market. Although Kenyan farmers are familiar with creating those groups, several constraints such as attitudes and loyalty prevent them from forming (Backstrom et al. 2006).

The study seeks to determine how cashew farmers' behavioural intentions influence their willingness to form or join cooperatives. Further, the study intends to find answers to what could be the possible motivational factors for joining cooperatives and if they are already proven in other studies or not. Ajzen's Theory of Planned Behavior is used to determine the behavioural intentions toward their willingness to join or establish a group (Ajzen 1991). This thesis consists of seven main chapters. The first chapter, the Introduction, focuses on understanding cooperatives and overall cashew production. The second chapter – the literature review, focuses on cooperatives in Kenya and their cashew

nut industry and production and the poverty situation in Kenya. There are subchapters about the Theory of Planned Behavior and its application in the qualitative part of the research. Chapter three covers the aims of the thesis and its primary focus. Chapter four, the methodology, represents a detailed description of the location and qualitative methods approach used in the study. The latter end and chapter five consist of the results and discussion. Chapter six covers the conclusions and recommendations with possible future changes in farmers' attitudes towards cooperatives.

2. Literature Review

2.1. Agriculture in Kenya

Poverty reduction is one of the world's most significant challenges and a primary aspect of contemporary global discussions. While poverty is present in both developing and developed countries, this issue is much more widespread in the former. According to the International Labour Organization (ILO 2021), for developing countries to achieve sustained poverty reduction, they must attain higher, stable growth that involves and benefits poor people. However, estimates for global poverty are that out of the total 7.8 billion people in the world, 689 million (9.2 %) people live in extreme poverty on \$1.90 or less a day, with 80 % of these impoverished people living in rural areas (Castaneda et al. 2016). Recent statistics suggest that extreme poverty is highly concentrated and overwhelmingly affects rural populations (UNSTAT 2019). A further report from United Nations Statistics (2019) shows that extreme poverty is increasingly concentrated in Sub-Saharan Africa, where approximately 40 % of the people in the region live on less than \$1.90 a day. Particularly in Kenya, the poverty rate is changing and significantly influences the country's agricultural sector. Currently, 46 % of the population live on less than \$1 per day, 36.5 % are food insecure, and 35 % of children under the age of five are chronically malnourished (FAO 2021).

The African continent has doubled its inhabitants from about 550 million in 1985 to 1.2 billion in 2018 (UN DESA 2015). It is mainly due to the fact of improving health conditions and a prolonged decline in still high fertility rates. The advantage that arises from it is that younger individuals tend to be more productive than older people, thus representing a greater labour force (Africa Competitiveness Report 2017). Kenya is also experiencing rapid growth in its inhabitants and is expected to reach 81 million in 2039. As a result, land parcels in areas with a high agricultural potential decrease in size, seriously affecting food production (FAO 2021).

Agriculture remains a dominant sector in most African countries and is regarded by many as the engine of economic growth. Nevertheless, this sector has remained stagnant for a long time (FAO 2018). Supported by another source (Miller et al. 2017), the labour productivity in agriculture is much lower than in any other economic sector,

particularly as the national accounts data shows that the other sectors are six times more productive than agricultural labour. On the other hand, Ellen B. McCullough (Miller et al. 2017) shows that productivity can be effective when measured from a household perspective for own consumption, usually done by smallholder farmers. Using new measuring methods, like the number of hours of work done by one worker, not the macroeconomic stock of labour, she was able to identify that the differences in productivity can become minimal. So, we can see that agriculture does not have to be any less productive than other sectors.

Agriculture is one of the main pillars of the Kenyan economy. The country's foreign exchange earnings come mainly from black tea, tourism, coffee, and horticultural exports, for example, green beans, onions, mangos, and avocados (Kamau 2020). These global market crops experienced a significant increase in 2003. Agriculture contributes about 45 % of the total GDP and employs approximately 53.8 % of the national labour force (FAO 2021). Over 80 % of the Kenyan population live in rural areas and derive their livelihoods directly or indirectly from this sector which is usually extensive and complex. However, improvement in the agriculture sector should be made by providing more jobs in this sector to the poorest people and facilitating the growth of agriculture after the slow development. The majority of farmers in this sector are small holders with about 0.2 ha farms (The World bank 2015).

What is considered to be coastal agriculture of Kenya, mainly smallholder farmers are producing in these areas. The main food crops cultivated are maize, cassava, pulses, or mangoes, mainly for home consumption (Wekesa et al. 2016). The demand and prices even for these crops are higher in the places where tourist hotels are located. Communities in coastal parts are affected by climate change and search for financial loans to buy diverse nutritional food to ensure food security (Wekesa et al. 2016). In Figure 1. there is a detailed description of ways in which households cope with lack of food during food insecurity in coastal parts of Kenya.

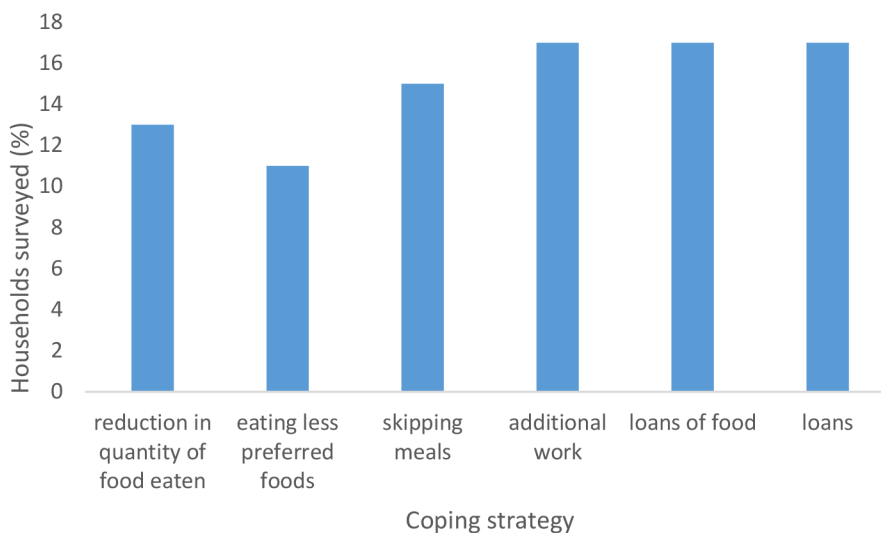


Figure 1. Ways in Which Kenyan Coastal Households Cope with Food Insecurity.

(Source: Wekesa et al. 2016)

However, in recent years, farmers affected by climate change must usually operate in dryland areas. In the farming regions, rain-fed farming systems are being pushed into the dryer, more marginal areas, where they become increasingly vulnerable to drought and the unpredictability of weather patterns resulting from climate change (FAO 2021). On the other hand, Ochieng et al. 2016 claim that temperature is more significant on production than rainfall, and the climate impacts are crop specific. Related to the increase in temperature is also the high occurrence of animal and crop diseases or pests (Wekesa et al. 2016). That is why many innovations need to be ensured to enhance resilient and robust production, mostly in coastal regions of Kenya, where poverty alleviation and agriculture strengthening are the most crucial sectors to enhance. One way to improve agriculture is crop diversification, new planting techniques, and wild tree domestication. (Hanson et al. 2013). Thus, farmers are trying to plant different varieties to ensure food security and profits. However, some of these innovative intentions fail due to weather conditions.

Coastal farming in Kenya has experienced some technical innovations. The most important one is planting diverse varieties of the same crops. This system should prevent the failure of all types of crops simultaneously. It is one of the latest innovations and popular in recent decades because it can avoid pest diseases or fight successfully with the lack of rainfall. This method is used to prevent crop failure and combines the different varieties, for example, traditional, improved, or hybrid, usually of the same crops.

Farmers are adopting fast-growing varieties of maize, cassava, or cowpeas, and the cultivation of these species is declining (Wekesa et al. 2016). Until 1992 farmers were planting traditional varieties of those crops because of the traditional value of community and cultural aspects. Over the years, farmers switched to hybrid varieties due to weakening traditions, and many new varieties were introduced.

Another example is wild tree domestication. It has become prevalent and valuable mainly for increasing income because of the fruits being sold (Wekesa et al. 2016). Wild trees can survive during dry periods, ensuring farmers' income during the loss of other crops. Also, another benefit is that the change in farming practices has the ability to enhance soil fertility. Of course, many other factors are affecting coastal agriculture to be more practical, sufficient, and resilient to climate change and its elements but are not that significant. In the area of study, which is the coastal part of Kenya, three cropping systems are used. They are annual, biannual, and perennial farming systems. These activities are only dependent on the amount of rainfall in the given area. Also, the harvest of the crops is derived from the pattern of rainfall, and only specific types of crops can be cultivated (Birch 2018).

2.2. Cashew Nut Industry and Production in Kenya

The cashew nut industry, directly and indirectly, employs from 4,000 to 50,000 people in Kenya (AgriFI Kenya CS APP 2019). According to another source (Muniu et al. 2019), the farmers included in the cashew business are about 68,000. Most cashew farmers are usually smallholders with about 30 cashew trees intercropped with coconuts and mangoes. Cashew nut cultivation is a vital income-generating activity in the coastal part of Kenya, which has a high potential for cashew nut production. It is cultivated mainly in Kwale, Kilifi, Tana River and Lamu Counties, which are situated along the coast. Some cultivation can also be seen in Taita Taveta and Tharaka Nithi Counties (Muniu et al. 2019). See the detailed description of these places in the suitability map in Figure 2. These areas are hot and humid for the longest time of the year as it becomes

drier inland from the ocean and from south to north (Nicholson et al. 1999), making the most suitable conditions for cashew nut cultivation.

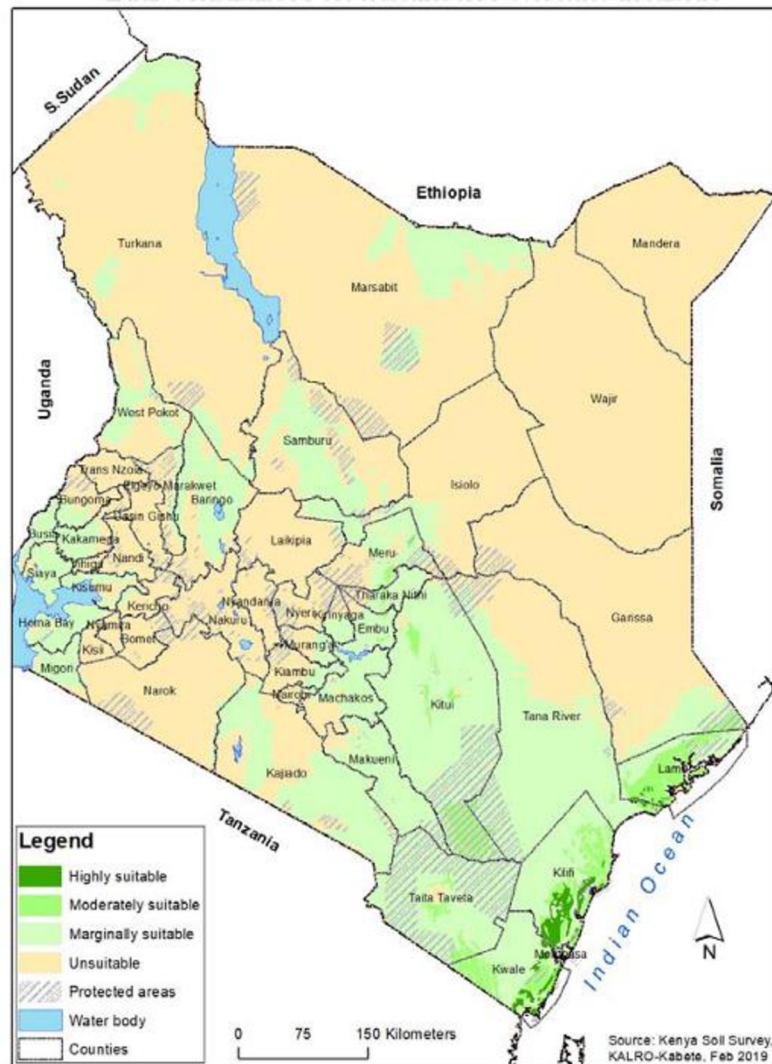


Figure 2. Suitability Map of Cashew Nut Growing in Kenya.

(Source: Muniu et al. 2019)

The global demand for processed cashew nut production is still constantly growing, as well as the demand for fair trade and organic cashew. The highest demand for processed cashew nuts is in the EU and Nordic countries (UNCTAD 2021). Although cashew nut production is one of the main pillars of Kenyan coastal agriculture and income-generating activity, it still has flaws in production. In the bigger picture, cashew plays a minor role in national agriculture.

Cashew nut production still suffers from several constraints, such as socio-economic problems, bio-physical or technical constraints, which affect the marketing and production, and quantity and quality of the nuts. The area's most significant issue is ageing

cashew trees, which is closely linked to a lack of investments in the cashew nut business. Old unproductive orchards and poor crop management contribute to small or no yields. Another problem is pests and related diseases. Farmers do not have proper chemicals which can be used to prevent diseases, particularly Powdery mildew cashew disease. These problems are also related to post-harvest losses, which have increased in the last ten years and relate to a decrease in production from the original 30,000 MT in the 80s to 10,000 MT in 1996 (Omolola 2021). Additionally, cashew nut farmers are experiencing low production prices.

Cashew production used to be one of the region's significant business and export crops, mainly in the 1970s. At that time, the National Cereal and Produce Board (NCPB) was responsible for buying the cashew nuts from farmers and assigning the cooperative societies. The most significant difficulties broke out after the trade liberalization in the 90s. Back then, most farmers usually changed their business from cashew to fruit cultivation, such as mangoes or coconuts. A place for intermediaries was created, and everyone, including middlemen and traders, were granted entry to the market. They started to trade cashew nuts with Kenya Cashew Nut Ltd, the only processor at that time. However, in the 90s, the Powdery mildew cashew disease broke out, leading to the collapse of the cashew industry in the coastal region. Recently, local farmers and governments are trying to restore cashew nut production to as it was in the past.

Cashew nut production has fluctuated over the years. In 1978, Kenya produced about 36,000 tons of cashew nuts, which was its highest peak. After this year, the production significantly decreased. Over the next 25 years, cashew production was about 9,500 tons a year. After this severe drop, production increased from 10,900 tons a year in 2005 to 29,000 tons in 2012. Since then, cashew nut production in Kenya has decreased. The most significant drop occurred in 2014, about 11.5 %. Slowly developing, in 2019, the cashew production was 12,031 tons (Market Insider 2014).

According to FAO (2021), Figure 3. shows the cashew production in Kenya in Kilogram per hectare (Kg/Ha) from 1990 to 2020.

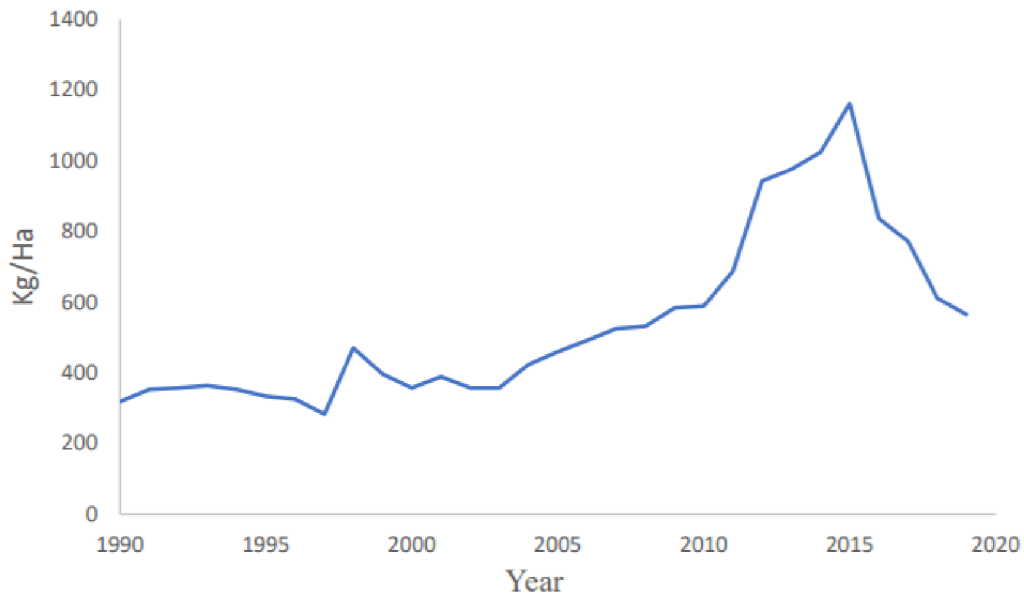


Figure 3. Cashew Production in Kenya.

(Source: FAO 2021)

Figure 4. Shows exported value of cashew nuts. In 2001, there was a high value exported, compared to 2012, when a significant decrease occurred, and the value dropped to its minimum.

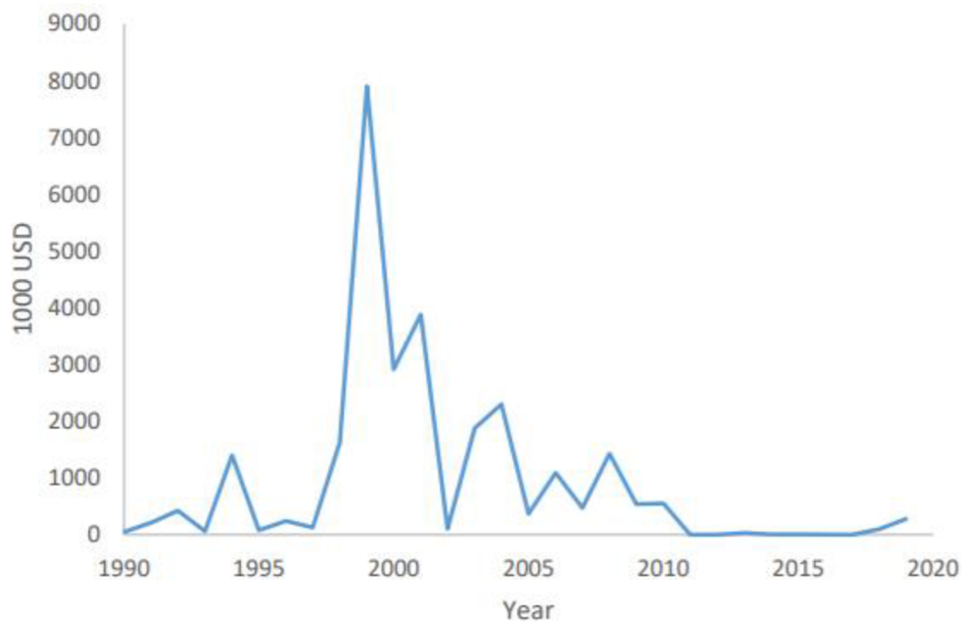


Figure 4. Exported Value of Cashew Nuts in Kenya, Value in 1 000 USD.

(Source: FAO 2021)

2.3. Farmer's Groups

In simple terms, a cooperative is an association between people who try to solve their needs and cravings, whether economic, cultural, or social. It is run autonomously and adopts joint ownership within the group. This could be the collaborative sharing of inputs such as machinery, seeds, or joint income from their joint production. The members participate voluntarily, and usually, cooperation is democratically controlled since every member has only one vote in the cooperative. According to the International Cooperative Alliance (ICA), a cooperative is: “an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise” (ICA 1995). A cooperative is not always only a profit-making organization but also dwells on its members' social values and equality, solidarity, or equity. Cooperatives consist of certain principles, such as voluntary and open membership and democratic member control, as mentioned above, economic participation of members or their education, cooperation among the members, and concern for the community.

Several types of cooperatives exist: Financial cooperatives, Consumer cooperatives, Housing Cooperatives, or Agricultural / Farmer's cooperatives (Tchami 2007). Regarding agricultural cooperatives, farmers mainly seek to improve their market prices and cheap services to enhance better living conditions. As Ortmann & King (2007) claim, a cooperative can be a user-owned and user-controlled enterprise where all profits or benefits are shared proportionately based on use and patronage. Studies also show that there are different ways how the members of a cooperative trust each other and how much they can work together on certain activities in the group. If the trust is high, it usually leads to better performance among the cooperative, as the farmers feel they belong to the cooperative (Feng et al. 2011).

The advantage of forming a cooperative or any other collective action is that there are ways to reduce high transactional costs (Markelova et al. 2009). The usual benefit of cooperation is the possibility of doing business together. Members can easily optimize their economic, social, or cultural needs, so social benefits can also be found. (Scholz 2019). Moreover, cooperatives should provide services that are supposed to reduce transactional costs and other market failures, which should provide more stable production levels as well as incomes for small-holder farmers (Grashuis & Ye 2019).

Farmers join a cooperative as it can improve their livelihoods and production with marketing and serve more purposes (Bernard et al. 2008). As innovation increases globally, the authors claim, the cooperatives will be the only legitimate business organization capable of providing new opportunities for smallholder farmers sustainably (Figueiredo & Franco 2018).

On the other hand, the most common obstacles to forming a cooperative are the transaction costs and membership fees, which can determine the behaviour. In addition, the trust issues and no cooperative association to join in the vicinity also seem to be disadvantaged (Möllers et al. 2018). Farmers often do not want to join a cooperative as the cooperative does not control how much is supplied to the market, as each member decides how much to deliver. Thus profit losses can emerge (Albæk & Schultz 1998). Over-reliance on government and government regulations as well as low public confidence, can negatively affect the motivation to join cooperatives (Jensen & Meckling 2016).

There were several studies done that showed the positive aspect of cooperatives, for example, the green bean marketing cooperative in Kenya, where members have managed to meet a food safety standard that has enabled them to remain competitive (Narrood et al. 2009), banana growers' organization in Kenya, where sales through the cooperative brought members a higher income, regardless of the modest price premium offered (Fischer & Qaim 2012). On the other hand, some studies show the poor performance of agriculture cooperatives in developing countries. Nkhoma & Conforte (2011) emphasized the difficulties cooperatives face in Malawi in building a sustainable market position, mainly due to poor governance, management, and market access, which discourages members. Another case from Anteneh et al. (2011) stated that only 42 % of members sell their coffee production to their cooperatives. Several reasons were pointed out, such as the inability of the cooperatives to lend money to farmers and pay in cash when delivering the coffee. They also noted that private traders provide payment in advance when farmers supply coffee, forcing most small farmers to prefer private traders to cooperatives.

2.4. Cooperatives in Kenya

Cooperatives are an essential tool for the empowerment of small-scale farmers because they create better market access, sustainable production, and job opportunities to fight against poverty, which is still very high in Kenya (ILO 2015). According to

legislation, there are many types of cooperative societies, although mainly agricultural and marketing cooperatives (Gatuguta et al. 2014). Agriculture cooperatives have become a tool for farmers to commercialize agriculture products, especially cash crops such as coffee, tea, cotton, or cashew (Fischer & Qaim 2012).

The agriculture cooperatives in Kenya focus mainly on coffee, cotton, and sugar cane production. On the other hand, non-agriculture cooperatives usually form a SACCO (Savings and Credit Cooperatives Societies), financial institutions providing loans for any type of enterprise (Wanyama 2009). SACCOS control over KES 250 billion¹ with 1.8 million members granted loans and savings (Okpo 2020).

Kenya officially has about 15,000 registered cooperatives with 12 million members. More than 320,000 employees and more than 1.5 million people are engaged in small-scale and informal enterprises funded by cooperative loans (Waititu 2020). Currently, the cooperative societies in Kenya contribute about 45 % of the country's GDP (Waititu 2020). Kenya's economy is heavily reliant on agriculture, partly explaining the frequent occurrence of cooperatives (Mathuva 2016). Agricultural cooperatives account for 46 % of all cooperative societies in the country. Overall, 63 % of Kenyans derive their livelihood from cooperative enterprises (Okpo 2020).

In Kenya, the first cooperative society was registered in 1908, called the Lumbwa cooperative. Its intentions were very similar to today's cooperatives which is to have better access to markets. However, white settlers formed these cooperatives with the idea to develop the agriculture sector and export. Africans could form a cooperative in the later 1950s. In 1963, when Kenya finally became independent, there were about 1,000 registered cooperatives (Okpo 2020). This inspired the government to promote cooperatives as the key strategy for national development. The Kenya Cooperative Societies Amendment Act 2004 regulates the establishment and management of existing cooperatives. It is based on the Cooperative Societies Act No. 490 of 1966, which was designed to reduce cooperatives' strict state supervision and encourage the liberalization of cooperative enterprises (Okpo 2020).

¹ USD 1 equals to KES 113.54566 (information is up to 1.4. 2022).
(European Commission Exchange rate (InforEuro) 2022).

The cooperative societies went through many changes, from complete government control and a monopolistic position in the 60s-80s to nowadays, where cooperatives operate on free and open markets. In the time of liberalization, the cooperative societies could not pay farmers cash for the delivery of their goods, which escalated into a lack of trust and loss of confidence that has persisted since.

Cashew nut producers in coastal Kenya still do not belong to any cashew marketing group. According to FAO (2018), linking producers to markets through cooperatives is significant as it is more likely to encourage farmers' motivation and willingness to participate in groups. With this hope, this study will investigate if the smallholder cashew farmers from the coastal parts of Kenya are willing to form or join cashew marketing groups.

2.5. Theory of Planned Behavior

In this thesis, other perspective is used on the issue of cooperatives. This thesis borrowed some concepts from The Theory of Planned Behavior (TPB) to examine how willing farmers are to establish cashew cooperatives. TPB was applied during the qualitative research in the form of a questionnaire for interviews. It is the most common theory for the study of human behaviour, therefore ideally suitable for this research. It was proposed by Icek Ajzen in 1985 (From intentions to actions: A theory of planned behavior). This theory explains individuals' intentions to engage in the behaviour at a specific time and place and explains all behaviours over which people can exert some form of self-control. It is considered the most influential and popular conceptual framework for studying human actions (Ajzen 2001). The predecessor of this theory is the Theory of Reasoned Action (Fishbein & Ajzen 1975), which believes human behaviour is an individual's free will and can be predicted from their intentions, including learning theories or attitude change. However, later on, control beliefs and perceived behavioural control were added to the Theory of Planned Behavior to explain situations where people lack their will. The behaviour is driven by other factors which individuals cannot influence. According to three consideration beliefs, the Theory of Planned Behaviour divides human behaviour into three categories.

The first category is about the likely consequences of human behaviour (behavioural beliefs). These beliefs express a favourable or unfavourable attitude or act toward the behaviour. In other words, an individual's opinion about the action, whether it makes a positive or negative contribution to their life. The most significant background factors influencing this category are personality, stereotypes, experience, or personal values.

The second category of behaviour are beliefs about the normative expectations of others (normative beliefs), which means the beliefs of everyone around the individual about whether they should be performing the behaviour. These beliefs consist of everything around the individual, such as their social network, cultural norms, or group beliefs, resulting in perceived social pressure or subjective standard. Income, education, or race of others around the individual can also influence the behaviour.

Last are the beliefs about the presence of factors that may facilitate or impede the performance of the behaviour (control beliefs). It expresses how easy or hard it is to display specific behaviour if it is even possible for the individual to perform it and express perceived behavioural control. The usual factor that influences this category is media or government.

Combining those three categories leads to the formation of a behavioural intention that finally tries to control the behaviour, as you can see in Figure 5.

This theory is used in many types of research, including health-related behaviours such as exercise or diet. For example, the individual is eager to lose 5 kg in a given period, and his intentions need to be positive towards the goal, finding a partner can also help. Otherwise, the goal is not likely to be fulfilled (Conner et al. 2003). Another example by Dobbs (2019) using TPB to encourage parents to include more fruits and vegetables in their lunches or the most recent study examined university students' intention to use electronic cigarettes, the positive attitude towards smoking was due to advertisement, and social norms predicted students' behaviours. TPB is frequently used in environmental psychology, environmentally positive actions, and brings positive normative beliefs (Koger et al. 2011).

Moreover, individuals can express an actual control of behaviour because it is very usual to be led by individuals' intentions when it comes to the action. It is essential to know that the behavioural, normative, and control beliefs people hold about the

performance of given behaviour are influenced by various cultural, personal, and situational factors. Therefore, there may be differences in the beliefs between men and women, young and old, educated and uneducated, rich and poor, dominant and submissive, and between individuals who have individualistic and those who have a collective orientation. Additionally, the behaviour may be affected by the physical environment, the social environment, exposure to information, and broad dispositions such as values and prejudices.

In other cases, TPB was used in studies regarding cooperatives. Evidence from Malaysia shows that attitude and loyalty intentions have a positive correlation with each other, and it was found that the higher the attitude, the higher the loyalty intention. In other words, if farmers feel the cooperative is favourable to them, they will continue in being loyal. If not, the loyalty might drop (Hasbullah 2015). This result supports the previous findings made by Ajzen & Fishbein (1997). This study done by Habullah in 2015 additionally shows that knowledge about cooperatives is fundamental for the members to feel they belong in the cooperative. At the same time, cooperatives should make sure to provide correct information. Another example from Romania studied intention towards joining cooperative. It shows the intentions for cooperation are surprisingly high and attractive for small-holders which elevated from attitude and social norms, mainly family's opinion. Also, farmers feel they possess the significant skill to be able to join and are attracted by the possible financial benefit. In this case, trust proves itself as an insignificant factor (Möllers et al. 2018). Based on the TPB model, Dodoiu (2015) also claim, „perceived norms and high volitional control relate to individuals' intentions to engage in cooperative conflict management activities, with intentions not mediating to the role of norms on behaviour.“

The main criticism of TPB relates to the lack of an individual's needs before taking a specific action, which results in a particular behaviour. To overdict an action, more inexplicable events underlying human behaviour need to be included in the TPB model. Furthermore, it is too logical or rational to be able to predict some kind of human behaviour, which is not always based on good logic or sense (Barber 2011). However, authors argue in their book (Fishbein, Ajzen 2010) and claim that TPB does not assume that behaviour is rational. “They admit that individuals may hold irrational, unreasonable,

untrue or any other types of beliefs. Further, they argue that people may form intentions to behave in ways that are irrational” (Barber 2011).

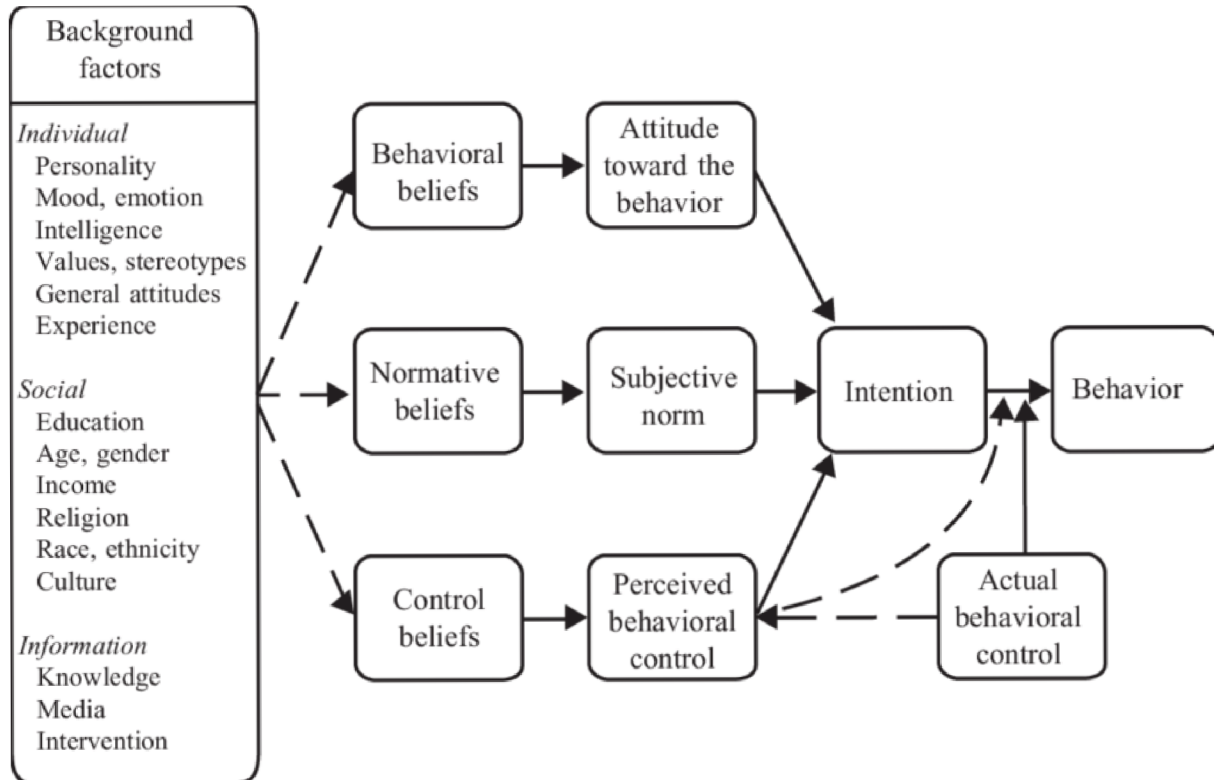


Figure 5. The Theories of Reasoned Action and Planned Behavior.

(Source: Icek Ajzen 2005)

2.6. Factors Influencing Farmer's Participation in Cooperatives

This sub-chapter will investigate factors that influence farmers to join and participate in cooperatives. Usually, those factors are socioeconomic or demographic.

Birchall & Simmons (2004) developed a model called 'Mutual Incentives Theory' (MIT) to examine the motivation to participate in cooperatives. They came up with two social-psychological theories of motivation. The first approach is for the occasions when people react rather selfish, and self-interest is the primal motivation. It assumes that people are motivated based on their individual reinforcements and success, the positive circumstances, as well as based on their own failures, in other words, the negative circumstances. The individualistic approach describes how these motivations interact. For graphical design, see Figure 6. below.

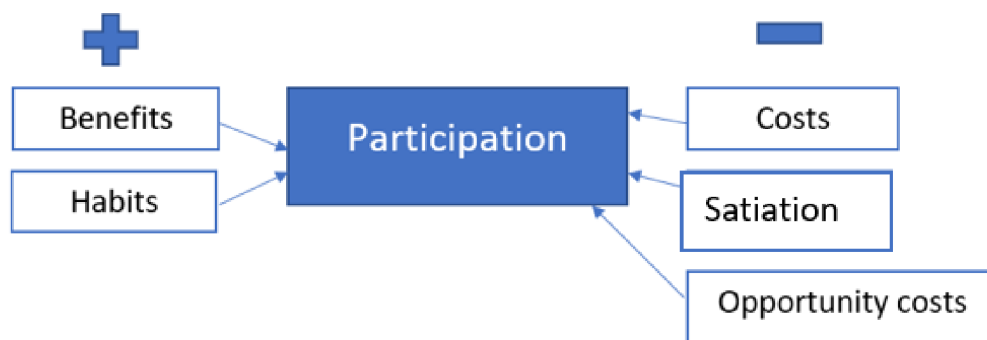


Figure 6. Individualistic Incentives.

(Source: Birchall & Simmons 2004)

The second approach is based on motivation through concern for others and mutual understanding. The collectivistic approach (see Figure 7. below) is derived from assuming the motivation is based on three variables:

- 1) Shared goals, in which people feel mutual desires, which are later reflected in common goals.
- 2) Shared values, in which people feel obligated to participate as an expression of shared values.
- 3) Sense of community, in which people relate to others and are concerned for others. It can be based on mutual similarities.

The more one of these variables is present, the more likely people will participate.

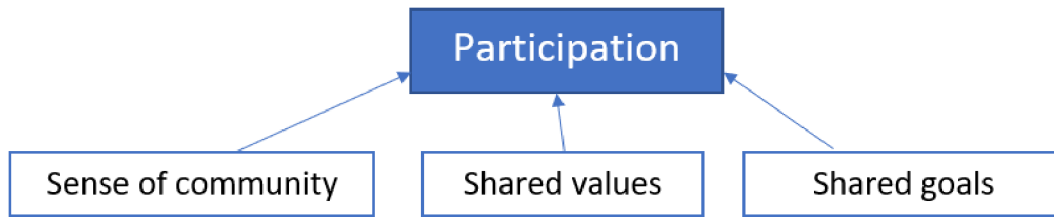


Figure 7. Collectivistic Incentives.

(Source: Birchall & Simmons 2004)

Lastly, Birchall & Simmons (2004) claim that the ‘Mutual Incentives Theory’ on its own is not enough for the explanation of people’s participation, and it needs to be linked to another potential explanation. For example, the MIT can be seen as a ‘demand-side’ model, however, it does not include the ‘supply-side’ explanations, like personal resources and mobilisation factors. That is why The Participation chain (see Figure 8.) was developed. The first stage includes the possible resources individuals own. The second stage includes its mobilisation. In this case, MIT becomes the third link in the chain.

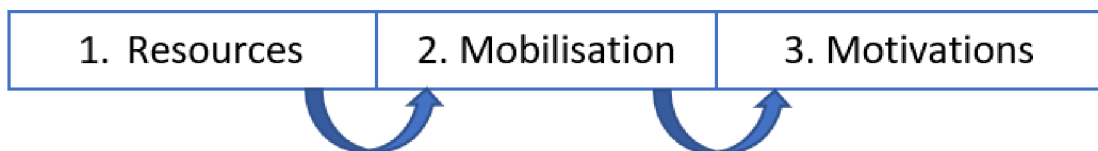


Figure 8. The ‘Participation Chain’.

(Source: Birchall & Simmons 2004)

In this part of the chapter, the known motivation factors are examined. Usually, they are connected to the first part of The Participation Chain – Resources. Fischer & Qaim (2014) proposed a farm size as a variable to find out if farmers with a larger land area may benefit from input and output markets as well as access to information in the cooperative. On the other hand, Mensah et al. (2012) claim that the farm size negatively influenced the commitment to cooperation. According to further research done by Burt & Wirth (1990), farm size is not relevant when mentioning motivational factors for joining a cooperative.

Regarding the gender and age issues, Msimango & Oladele (2013) claim that older and younger farmers as usually equally distributed among the cooperative. Thus age differences are not an essential factor for joining. The same study was done and confirmed by Burt & Wirth (1990). On the other hand, Fischer & Qaim (2014) claim older farmers may not be physically able to participate in cooperative activities, thus not joining. Another study done by Gyau et al. (2016) found that male farmers are more likely to join cooperatives, contrary to Fischer & Qaim (2014), who found that more female farmers are more likely to join cooperatives. Gender and age issues can also be linked with the second category of TPB, the normative expectations of others.

Another study on the critical aspect of participation to improve profit as well as market access was done by Mensah et al. (2012), who claim that farmers would like to join cooperatives if the price was higher than from other sources. Mensah et al. (2012) also proved in their study that cooperative members received higher profits for cashew in Benin than non-members. Supported by a study done by Msimango & Oladele (2013), farmers join with the trust of availability of loans and improvements in profit. Improvements in profit are linked with the behavioural beliefs of an individual.

Closely linked with the economic side of the aspect is training. Msimango & Oladele (2013) found out that a training service provided among the cooperatives is a motivational aspect for joining. Training can provide a learning experience and help to gain information (Ruiz Jiménez et al. 2010). According to TPB, training provided to farmers can also be considered a motivational factor through controlling beliefs of behaviour.

The training can also benefit from gaining trust as another crucial factor for joining. A study done by Liang et al. (2015) claims that trust-worthy members can easier achieve the goal and cooperate if they share a common understanding. Trust is a crucial factor for joining even according to TPB, specifically the second category, the normative expectations of others.

Farmers are motivated to participate in cooperatives if they were satisfied with membership in cooperatives in the past (Mensah et al. 2012). Also, they are influenced by the experience of other farmers, which can be connected with normative expectations

of others according to TPB. Ruiz Jiménez et al. (2010) found out that with experience from other cooperatives comes a higher level of commitment.

Ruiz Jiménez et al. (2010) also investigated how cooperative leadership influences farmers in joining the cooperative. It showed that when the farmers trust the leadership among the cooperative, they tend to bring the majority of the harvest. According to TPB, sufficient leadership is also an important motivational factor and belongs to the control beliefs of behaviour.

3. Aims of the Thesis

In the coastal parts of Kenya, there are mainly individual cashew farmers who are not organized and usually are not able to negotiate over the price with middlemen. Poor prices for production lead to a reduction in income and a worsening of their living situation. Therefore, this analysis was designed to closely relate to cashew nuts' prospects for better market opportunities.

One of the possible improvements to the current situation may be forming a cooperative group and producing cashew nuts as a group. The information presented in this study could be significant because about twenty years ago, cooperatives in coastal areas were functioning very well.

The study uses qualitative data based on the Theory of Planned Behaviour, which explains individuals' intentions according to their behaviour. This theory focuses on an individual's attitude, subjective norms, and behavioural control.

The main objective is to determine if farmers are willing to join or form a cooperative group and under what circumstances. Further, analyse the factors that motivate or hinder farmers from establishing cashew cooperatives.

The specific objectives of this study are to:

- 1) To examine how farmers' behavioural intentions influence their willingness to join cooperatives,
- 2) to investigate which social factors influence the willingness of farmers to participate in cooperatives.

4. Methodology

4.1. Location

Data was collected in the coastal region of Kenya. Initially, data should have been collected from Lamu and Kwale. However, due to a lack of logistics, data were collected only from the Kilifi region. Usually in villages around Kilifi and Malindi county. Lamu region was eventually excluded from the collection sites due to security reasons, as Al-Shabab attacked in the past Lamu region which neighbour with Somalia.

The coastal province of Kenya has six counties and covers approximately 83,000 Km² with about 3.3 million people. The counties are Mombasa, Taita Taveta, Kwale, Kilifi, Lamu, and Tana River, see Figure 9. The climate in the region varies with distance from the coast, and it becomes drier inland from the ocean and from south to north. (Nicholson et al., 1999). More specifically, Kilifi County occupies an area of 12,246 Km² and the county capital is located in Kilifi town. Even though this region has a high potential for cashew production, it is still experiencing a 60 % poverty rate.

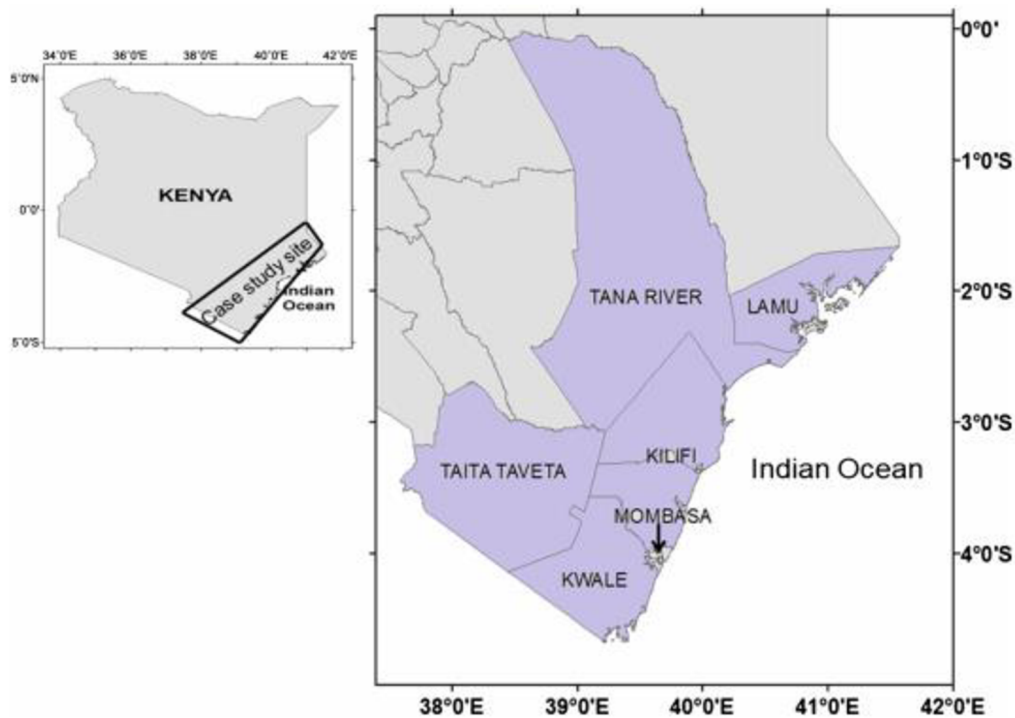


Figure 9. Map of the Coastal Region of Kenya.

(Source: Hassan et al. 2015)

In this research, qualitative data is used. It was obtained through interviews with the farmers. Interviews were structured according to the Theory of Planned Behaviour principles. Another way of collecting qualitative data was done through Focus Group Discussions with women farmers and through face-to-face interviews with other key informants. Data were collected in cooperation with the EU cashew project, local university researchers, and the FTA Cooperative Research Team. The EU cashew project is a Project of the EU Trust Fund for Africa implemented by SlovakAid (Kenya 2017-2020) called “Reduction of migration through providing agriculture employment opportunities in the Coastal Region” focused on establishing and supporting agricultural cooperatives for 15,000 cashew farmers. With this project, Slovak Agency for International Development Cooperation has also been involved with other partners such as Ten Senses Africa and Visegrad four.

4.2. Qualitative Data

4.2.1. Interviews with Farmers

For qualitative data collection, face-to-face interviews using open-ended questions were made with fourteen farmers to determine the background of their choices and preferences. The random selection and non-probability convenient sampling from a complete list of all participants were used to select farmers. Initially, twenty farmers were selected randomly from the database, which consisted of four hundred farmers participating in the project. However, only six farmers out of twenty selected were contacted due to the unwillingness of project coordinators. Another eight farmers were chosen by non-probably convenient selection by project coordinators. This conditional selection of farmers could also affect the results because the sample was not general and might have been biased.

Interviews were held in person, and notes were taken during these interviews. Records from interviews were only used as part of the research and will not be provided to any other party. The interviews' results may also be biased as it was translated from Swahili to English with the help of TSA translators. The data collection of interviews with farmers was located in villages Mipirani, Sokoke, Kwamongo, Tambala, Konjora, Zowerani, Kakanjuni, Chando, Kijiwetanga and Kidzingo in Kilifi and Malindi county.

The face-to-face interview is the most traditional way to conduct survey research. During the interview, the interviewer needs to gain entry and initial cooperation from the interviewee. Hospitality is required for these surveys, and a built sense of trust between all parties. The face-to-face contact encourages the interviewee to speak truthfully and honestly (Gideon 2012). The author proceeded with a similar approach and invited the farmers to have a frank conversation because the answers would be anonymous and would not be provided to any third party—this information led to a higher level of trust. The advantage of holding interviews is that there is an opportunity to be straightforward. There is a possibility to obtain any interpersonal interactions between interviewer and interviewee. During the interviews, the author was able to recognize the emotions and interactions of the respondents and, on this basis, distinguish possible bias caused by the translation. The main limitation of face-to-face interviews is that it requires a lot of time than other survey modes, up to five to ten times more than alternative methods. It can provide data that combine the variability of respondents' answers according to the interview situation (Gideon 2012).

Interviews were structured according to the Theory of Planned Behaviour which is a formative study on human behaviour based on three kinds of consideration:

- 1) Behavioural beliefs: personal opinion and belief about joining a cooperative group.
- 2) Normative beliefs: opinion about the expectation of others, for example, family or neighbours, and how these beliefs influence behavioural beliefs.
- 3) Control beliefs: the presence of external factors that can facilitate or reject the involvement in groups.

The proposed questions were aimed to understand the opinion and convictions of the cashew farmers, see if they are already members of some groups, and know how much they are affected by their surroundings. Additionally, if they consider any external factors as crucial reasons why the cashew cooperative groups do not operate. The specified questions were:

- 1) Behavioural: *What benefits can cooperatives provide? Can you specify the benefits? On the other hand, which obstacles can cooperatives cause? How would it influence you?*

- 2) Normative: *Do you trust your fellow farmer? Do you trust your neighbours enough to do business together? Is the opinion of your family or friends important considering business? Are you able to cooperate with others? Is it better for you to be self-employed?*
- 3) Control: *Do you receive any kind of support from the government or NGOs? What would motivate you enough to be part of a cooperative? Would it be a higher price for your production?*

The framework analysis was used to analyze the TPB, and three constructs were used as a structure of the analysis. The summary of Personal beliefs, Normative beliefs, and Control beliefs was written in text format with direct responses from respondents in quotation marks and italics. The positive and negative outcomes from responses were recorded and used to identify whether the farmers are willing to join or form a cooperative group and what external factors influence them positively or negatively.

4.2.2. Focus Group Discussions

Another option for obtaining qualitative data was Focus group discussions. For this research, four Focus Group Discussions (FGD) were conducted, usually with ten women. Women in these areas already cooperated because they belong to the same savings group, therefore chosen because of their experience. Non-probability convenient sampling was used to determine the women groups which project coordinators selected. Participants were only the women groups of farmers regardless of age, religion, education, or position. Women did farming as the primary source of income and were part of the EU project and cooperated with TSA. Discussions with the women farmers were organized to obtain diverse experiences and opinions on their willingness to form a cooperative group.

FGD was organized by Ten senses Africa whenever possible to provide smooth facilitation, and notes were taken during the discussions. Ing. Jana Mazancová, PhD, led FGDs, and the author provided additional questions. Afterwards, reports of these meetings were formed by the author. These reports were summaries of the discussions and consisted of some basic information about the farmers, the location of their village with GPS coordinates, and the number of farmers in the group. Additionally, the ethnicity of the group was mentioned but only if they were willing to share. Results of FGD may

be biased as it was translated from Swahili to English with the help of TSA translators. The FGD took place in Ngerenya and Kwamongo villages in Kilifi County.

FGD help to gather information from people with similar backgrounds, interests or attitudes, and it is a form of qualitative research and free open discussion over proposed topics (Manoranjitham & Jacob 2007). This method encourages participants (usually eight to twelve people) to talk to other members freely and creates a structured discussion. For the FGD to be successful, the participants need to provide truthful and honest answers. The group composition needs to be planned in advance as well as an experienced interviewer with interpersonal skills.

FGD research method can be used in social and psychological sciences and conservation research. It often occurs also in communication and media studies. FGD is frequently linked with feminist or health research (Nyumba et al. 2018; Morgan 1996). For our FGD, the single focus group discussion was used, however, there are several types of FGD identified:

- Single focus group: discussion in one group, the most common type (Morgan 1996)
- Two-way focus group: discussion in one group, participate in two groups, another group only observes
- A dual moderator focus group: involves two interviewers' cooperation in one group
- Online focus group: the same time as a single focus group, only with the use of the internet

(Nyumba et al. 2018)

The main questions asked during the FGD were as follows: *What is your opinion on the formation and running of a group of producers of cashew nut/cooperative? What do you see as possible benefits of running a cooperative? What prevents you from forming a cooperative? What do you consider a fair price for your production?*

In Figure 10. below there is a detailed description of places where interviews with farmers and FGD took place. On the map, face-to-face interviews are marked by a green mark, and FGD is labelled with a pink mark.

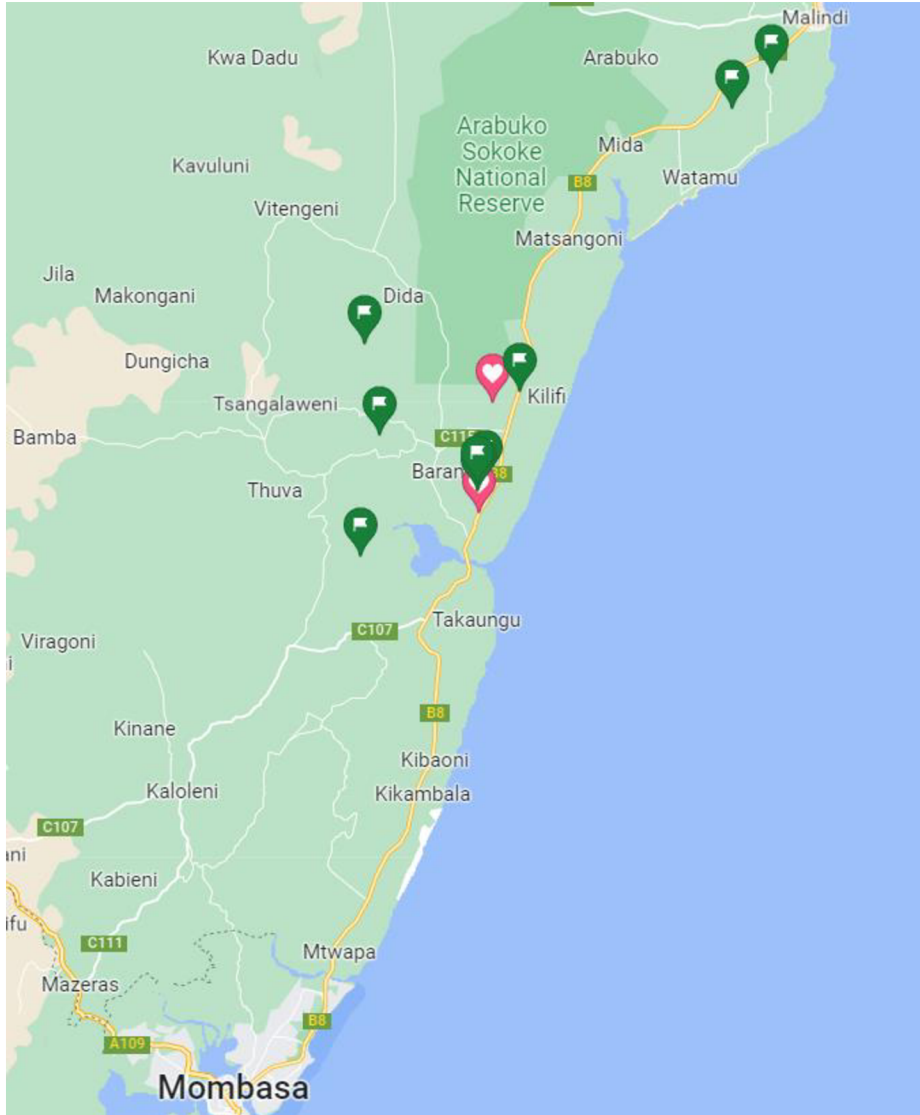


Figure 10. Map of Villages Where Interviews and FGD Took Place.

(Source: Author, Google maps 2022)

4.2.3. Interviews with Other Informants

A part of the results are also answers from personal interviews with other informants who know the background of cooperatives in the coastal region of Kenya and provided a deeper understanding of the situation. They were selected by convenient selection and were asked about the history of cooperatives in Kenya, their opinion and

possibility of running a cooperative, why the cooperative groups are not popular anymore, or if farmers trust the environment. The meetings took place in Kilifi town of Kilifi County.

Among the three interviewed people was Professor Hemedi Mkuzi, who works as a research and extension professor at Pwani University in Kilifi, and was asked: *Is it possible to start a cashew marketing cooperative in Kilifi? If yes, in which conditions? Why did the former cashew factory collapse? Are the farmers trained enough to achieve better production?*

Another key informant was Mathew Mumo, the primary facilitator of meetings that took place. He is also an employee of Ten Senses Africa, and his field of study is monitoring and evaluation. Since he can provide knowledge about the field and is in close touch with the farmers, the answers were mainly from the farmers' perspective. He was asked: *Are cashew farmers willing to be part of a cooperative group? Under which conditions? Would it be beneficial for the farmer if they were part of a cashew group? What prevents the farmers from forming a cooperative?*

The last interview was done with Mr Kazungu, the local agricultural county director. He tries with his team to also establish self-help groups, so farmers are more used to cooperation. During the interview, he was asked: *Why cooperatives are not able to work nowadays compared to last century? Are farmers motivated enough to work as a group? The cashew cooperatives do not work here anymore, is it because of the collapse of the factory? Theoretically, if some new factories were here, would the farmers join in a cooperative?*

5. Results and Discussion

5.1. General Situation with Membership in Groups

As mentioned in the objectives, the main task was to determine whether the farmers were willing to join or form a cooperative group. Therefore, it was essential to examine the current participation in other groups (see Figure 11. for graphic design) and whether the farmers are satisfied with the group and its functions.

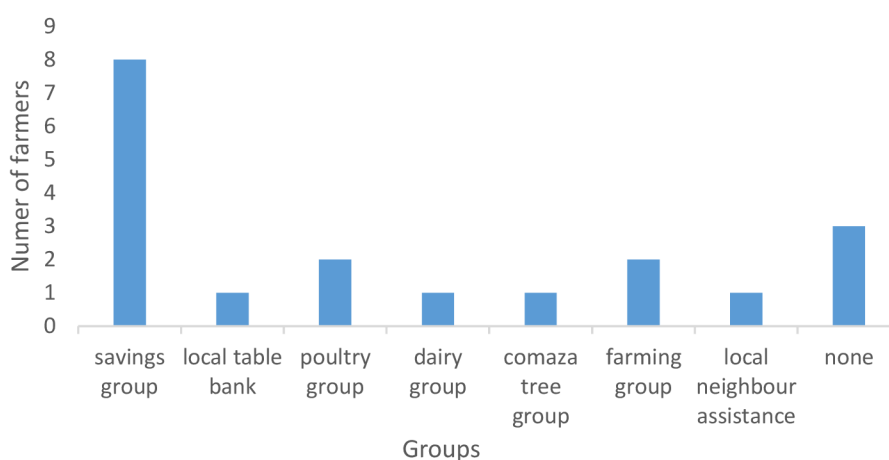


Figure 11. Groups Farmers Belong to.

(Source: Author 2022)

According to the research, the most frequent group farmers belong to were the savings groups, especially for saving purposes and the possibility of taking a loan. Eight of the sample of fourteen farmers belonged to one savings group. Only one male farmer is part of seven savings groups simultaneously, no one else was part of more than one savings group. Every female farmer interviewed belonged to one. With the savings group, farmers meet weekly and usually contribute about 100–200 KSh per week to the group's fund. Also, they pay a registration fee of about 200 KSh. The main topic in women's savings group was usually paying school fees and acquiring a loan to pay school fees, as well as how to secure their families and households. *“Loan will come back with some profit for the savings group,”* said most of the females. Another topic was women's empowerment and sharing tips and ideas about the household.

One female belonged to another group called the local table bank, which was very similar to the savings group. The main agenda was not providing loans but finding a way out of poverty.

From the sample, three men were in a savings group. They stated: *“The main agenda of our saving group meetings is to find a way of coming out of poverty, improving living standards, and helping each other with farming.”* Also, men contributed the same amount to share funds as women, although the agenda is a bit different. The men's savings group tried to improve the living standards across the whole village. It did not provide loans to its members but to the community as a whole.

In another group, the poultry group, farmers shared tips and ideas about poultry production. They helped each other with production, which is somewhat different from the saving group. One man and one woman farmer from the sample were part of this group. However, they did not have shared funds or work as a cooperative group. The group was only focused on help related to poultry production. Usually, many of these groups are terminated because of a lack of financial resources. In the case of poultry production, the main problem was the selling price. If the price for poultry was better, farmers would like to form a share fund and function on a similar and more simple basis as a cooperative. *“We had a group related to poultry production. However, the selling price was not high, and we could not continue running the group, a lot of us lost the whole production.”*

The dairy group worked successfully as a cooperative group. One woman farmer participated and saw the benefits of shared production and income.

Another group mentioned was the comaza tree group, in which one man participated and saw considerable potential in growing trees. The main advantage was the possibility of shared plantation and production. Shared plantations are significantly more accessible for a group than for an individual farmer. According to the farmer, the group was successful and improved his livelihood.

In the farming group were one female and one male farmer. They shared tips and ideas about farming and overall production. The agenda was not as specific as in a poultry or dairy group. It focused more on agriculture and the cultivation of primary subsistence products, like mangoes or cassava.

The last-mentioned group was local neighbour assistance. The main agenda was the education of children and farmers to gain new skills and help in sickness and poverty alleviation related business. One male farmer from the sample participated. The expert informant also added that this group is similar to the self-help groups which the County extension office already established. These groups offer new ideas of possibilities of cooperation and opportunities for the farmers to gain knowledge and tips about their production cultivation. *“A self-help group usually consists of about ten farmers, friends or neighbours, and we try to make them cooperate. When they feel ready to trust a bigger group, we can quickly proceed to a market cooperative.”* Another reason self-help groups were established is for better communication with farmers because the County extension office cannot reach them one by one.

The rest of the three men from the sample did not belong to any group. However, it was stated: *“We do not work in a group or as a group, but when some of us are in need, we do not hesitate to help.”* Farmers in the neighbourhood visit each other and give each other some ideas and tips regarding farming and everything else to reduce poverty in their region.

When asked what groups the neighbouring farmers belonged to, they were usually members of similar groups as the sample farmers. Mainly, their neighbours belonged to the savings group. Other groups were typically connected with the planting of trees. For example, planting coconuts, bee trees, or pawpaw trees. Some other farmers also belonged to the poultry group, where they could share advice and tips related to poultry production. They even sell the production together. However, the price is not so high. Thus, those groups usually end quickly. Also, no shared fund is created, so the group works only as a support group for sharing tips and advice, not for joint business.

5.2. Behavioural Factors

The behavioural part of the interviews and FGD consists of questions about cashew cooperatives' benefits and obstacles. It was crucial to determine whether the farmers would be willing to join a group and what positive effects it would bring. At the same time, answers to what factors would impede them from joining a cashew group were sought.

5.2.1. Benefits of Cooperatives

According to the farmers' answers, fourteen of them and most women from FGD were willing to join or form a cashew marketing cooperative. In all cases, the reasons for joining were very similar. The social benefits were mainly significant for the farmers because they did not have proper knowledge about economic benefits. As a social advantage, they usually consider sharing ideas, advice, and tips from other farmers. They stated: *“Different people always have different opinions. Even if we trust each other and consider ourselves as good and skilled farmers, we will always appreciate other points of view.”*

Furthermore, the farmers try to help each other with some issues on the farm in terms of shared work, for example, in terms of land cleaning, or help with the overall cultivation of the crops. Also, a benefit for them would be doing business with close friends or neighbours whom they trust and maintain good relationships with. Liang et al. (2015) claim that members of cooperatives are more hard-working only if they share a common understanding of each other. This proves that social capital is equally essential as the economic side.

After going through some possible economic benefits, farmers agreed that the main advantage of cooperation would be more production and a higher selling price. They all struggle with middlemen to get fair prices for their produce. Women from FGD also stated they are now dependent only on the prices from middlemen. *“If we were in a cooperation group, we could negotiate better the price with the brokers. The price negotiation would be easier. Also, the profit would be higher,”* was said.

If working in a group, sales would also be guaranteed. Farmers expected buyers to buy their products for a higher price. However, they have not started yet. Farmers urgently need higher prices because they need to improve the standard of living and use the money for education, feeding, shelter, and loans to buy some more land. If they work in a group, all this can be easier to achieve. However, if they do not receive higher prices, all attempts to form a cooperative group are useless.

The expert interview confirmed that forming cooperative groups in this region is highly possible. Not only because it worked in the past but also because it would benefit cashew farmers. From an expert's opinion: *“I own some cashew trees myself. I can*

imagine how hard it is to wait for the production. Cooperation would help local cashew farmers.”

Mensah et al. (2012) also claim that farmers are more willing to join cooperatives if the price is higher than other sources, confirming farmers' opinions in this research. Also, farmers join the cooperatives more often if they have the loan options as well as promising improvements in profit (Msimango & Oladele 2013). In this research, farmers are already in savings groups that provide loans. If the cooperative group would also provide loans, they would be more likely to join.

The key informant confirmed: *“The majority of the farmers would like to form cooperative groups. It would be great to form these cooperatives since they could have one voice to negotiate better prices and lobby for their welfare. Besides, if farmers would get services with ease such as agricultural education and extension, and investment and saving insights, that would help the formation.”*

5.2.2. Obstacles of Cooperatives

According to the farmers, the challenges of forming a cooperative group were still the same and repeatable. The ones that explain why there are no cashew groups yet. The most frequent one was money. The farmers did not think they had enough money to form a group. In some cases, paying the fees for the savings groups is already a problem. When asked how much money they would be willing to pay as fees, the most common answer was 100 KSh only at one time as a registration fee. The farmers stated that the money is needed for more important factors such as school fees, feeding, and basic needs. Someone also said they do not know because it depends on the production and price. However, everyone was aware that there would not be any reasonable prices if they would have poor production.

The problem of poor production is also common, as most of the farmers in the area have only the old unproductive cashew trees. The harvest is not very high, and due to lack of rainfall, many cashew nuts often dry up. The key informant further explained the problem: *“The trees always have enough flowers, but not many of them go into fruiting, especially when farmers used organic methods, the losses are significant.”* According to the key informant, farmers cannot take proper care of the cashew trees, so they lose production and profits rapidly. Production is not sufficient, which causes an

obstacle to forming cooperatives. Farmers would feel obligated to bring proper production to the cooperatives. Sadly, if the production were poor, they would not be able to.

Another obstacle to forming cooperatives is a lack of leadership and management. *“We can not find anyone as a natural leader. We do not know who would be able to establish a cooperative group.”* An easier way to fight these challenges would be to choose a leader and make some exact rules for cooperation, and members of the group must follow them. That is the only way in which the problem with leadership and trust can be partially solved. Ruiz Jiménez et al. (2010) claim that if farmers trust the leader in the cooperative, they are more likely to cooperate. This corresponds with responses in this research. If farmers found a natural leader, they would join the cooperative, and they would like to work together.

Furthermore, neither of the women felt strong and capable enough to start cooperatives independently. Women would need a male element in a group that could ease the conflicts because women usually fight and argue about many things. The cooperative aspect would not be beneficial. *“We would rather form a group with men and women together since women can not sometimes take care of the hard labour. Also, men can help us with the decision-making process.”*

In addition, most of the farmers feel they still lack skills, even after the training. Some of the farmers even did not receive any. They all would appreciate receiving more training focused on cashew planting and harvesting. Msimango & Oladele (2013) furthermore found out that the training service provided in the cooperatives is a motivational aspect for joining. As training offers learning experiences and helps to gain information (Ruiz Jiménez et al. 2010), farmers seek to receive it, which corresponds with the responses obtained. The key informant explained that farmers need to learn more about taking care of the trees. Also, they should keep records of inputs and outputs related to the production, learn how to make a simple cost-benefit analysis, and receive proper training in general. What is, according to him, lacking in general in cashew production are cashew varieties, which are not so high because the production would decline. *“In other words, farmers need to be encouraged, and help must be provided. Otherwise, there is no chance of improving the cashew marketing system.”*

The farmers from Konjora village experienced problems with starting a cooperative group. They were trying to form a cashew cooperative group because they knew the possible benefits. *“We bought some seedlings for the group shared fund, but they were stolen before someone could use them. We do not know who is responsible even today, but we do not trust each other. We cannot cooperate anymore.”* See more related to the problem of trust among farmers in subchapter 5.3.2. Trust Concerning Business.

The key informant sees possible challenges, including political influence and lack of cooperation among the members. *“Other factors such as lack of financial support, poor leadership, or embezzlement of funds is also quite an obstacle,”* he said.

One key informant stated in what conditions a cashew marketing cooperative could work.

- Firstly, the cooperative must be registered under social services. Otherwise, there is a high chance that problems will arise.
- Secondly, every group needs a constitution that the members will follow.
- Lastly, continuity needs to be secured and management issues must be improved.

Moreover, the key informant sees many problems in the young generation of farmers because they do not have proper knowledge, most importantly, they stopped planting new trees. According to him, cooperation with other farmers is essential. However, the farmers still have a shallow level of cooperation, which he assumes is very closely linked with poor production and price for cashew nuts. Farmers need to plant more new seedlings to obtain better production and price, which could solve many problems. Fortunately, some plans of the county extension office are already taking measures, and new varieties of seedlings and the farmers' training are provided.

5.3. Normative Factors

In the normative questions part of the interview, it was crucial to determine how the farmers perceive their cooperation with others. If the farmer would be able to argue about essential factors in the potential cashew group. For example, the production price, quality of cashew nuts, or quantity delivered by other members. Whom do the farmers

trust the most concerning business, and what social norms would motivate them to form a cashew marketing cooperative.

5.3.1. Farmers' Cooperation with Others

Every farmer stated they consider themselves able to cooperate, have a strong word, and feel they have a voice among the people. Some may earn it because of their age. Others believe they are used to listening and helping each other. Arguing about cashew production and purchase topics would not be a problem. *“It is our main source of income. We would argue about anything to get at least a fair price for my production,”* was said. Though farmers feel responsible and can make good decisions by themselves, they would still rather be in a group and argue and decide together.

According to research done by Mensah et al. (2012), farmers are more likely to join a cooperative if other farmers were or still are satisfied with cooperative membership in the past as they feel a higher level of commitment (Ruiz Juménez et al. 2010). In this research, no farmer was part of a cooperative in the past, neither their fellow farmers. Thus, this argument cannot be proven.

When it comes to the questions regarding the influence of social circles, farmers stated that the cashew business is theirs. The opinion of their friends or family would not be crucial because they decide about their own business. Farmers admitted that if friends or neighbours belonged to the cashew group, it would motivate them to join because they understand each other and trust each other. *“If our neighbours wanted me to join the cashew cooperative group, I would like to do so,”* was stated every time. However, if their social circle would not want to be part of cooperatives, they would join anyway. Usually, friends and family members support farmers no matter what, and they always agree with their decisions.

5.3.2. Trust Concerning Business

Trust is one of the most significant challenges and why cashew cooperative groups do not work yet. Farmers believed that only friends and neighbours were trustworthy to do business with. *“I always do as I promised. Otherwise, you cannot do business with others, and everybody in the community will know you cannot keep the promise. Nobody would like to do business with you, neither help you,”* everyone stated.

Everyone was willing to trust only their friends and the farmers around them, for example, neighbours. They would not be able to cooperate with the whole community. The main reason usually is that in the community are many newcomers. *"In our community, we have a lot of newcomers. We do not know each other enough to do business together. Also, many people in our community are lazy and do not work hard."*

Another problem is that the community of female farmers is unreliable and not loyal enough to do business together. Farmers do not trust one another due to bad experiences. Also, they had some previous disagreements and refusal to cooperate because other farmers could not adapt and were very uncooperative. Cooperatives are usually a bigger group, and farmers do not feel ready to cooperate with the whole village, only with a maximum of ten friends or neighbours they trust. It was proven in interviews as well as in FGD.

Four farmers believed cashew marketing cooperative might work even without a strong level of trust, but only if some rules were laid. First, a leader needs to be chosen, and then with the help of the local government, they would apply rules that every member of the group must obey. If not, the farmer would be expelled from the group after the third strike. As a benefit, it was stated that most of the farmers are people in need, and they are used to listening to each other and trying to help if it is possible, so the ejection from the group would not be so frequent.

According to Liang et al. (2015), trust is crucial in joining cooperatives. If farmers trust their fellow farmers or neighbours, they are more likely to join cooperatives. This research confirmed this study as all of the farmers interviewed would like to be part of a cashew group if it only consisted of the farmers they trust.

5.4. Control Factors

In part of the control questions, it was necessary to determine what other factors or circumstances would enable farmers to join a cashew cooperative group. This part focuses on farmers' satisfaction with brokers' prices and if it motivates them to establish cashew groups. It was crucial to see how external factors influence the farmers. These are the factors farmers are not able to control. Additionally, find out other motivational factors that encourage farmers to join a cashew group.

5.4.1. Governmental Support

From the farmer's point of view, the motivational factor could be the support from the state or local government. Farmers did not think the government would help or facilitate the group's formation. At the most, local government can provide the place for meetings, and help to set the rules, give them knowledge about how to run a group. Farmers would mostly appreciate the financial support, but they already know it will probably never happen from the governments' end. Most of them said: "*Government cannot be trusted, they are full of fake promises, we never received any kind of support, and we do not expect to receive it in the future either.*"

5.4.2. Awareness about Cooperatives

The interviews further examined the questions about knowledge and awareness of the cashew cooperative groups that worked very successfully in these areas in the last century. None of the respondents belonged to these groups. However, male farmers were aware of it because their parents participated in such a group. According to their information, a factory in Kilifi bought the farmers' cashew nut production for reasonable prices. However, it was stated: "*The factory collapsed because of lack of cooperation. People started to steal money and production. The internal problems in the factory negatively influenced many of the cashew farmers.*" According to the answers, it was clear that the problem with trust had its initials in such events as the collapse of the factory

The key informant filled this research with another point of view on history. When asked why the former factory collapsed, it was mentioned that internal problems in the factory, mainly the wrong leadership, caused it. "*It was not possible to provide money to farmers for their products anymore.*" It was explained that the cooperatives worked well there because of the factory that bought their production. After its fall, the farmers had less to sell and needed to find their markets, so the price also declined.

Some of the farmers questioned never heard about cooperatives. About eight farmers from the sample knew about cooperatives and how it works. Most men have that knowledge, and they also learn about cashew cooperatives from their parents because five farmers' parents were part of cashew cooperatives in the 80s and 90s. Some information about cooperatives was also received from field officers from TSA.

Knowledge is a crucial motivational factor for joining cooperatives (Ruiz Jiménez et al. 2010), thus should be provided to farmers to support the cooperation. The knowledge that lacks and should be provided to motivate farmers to join is, in this case, awareness about the benefits of forming a group.

5.4.3. Prices of Cashew Nuts

Farmers are now obtaining prices for cashew nuts from brokers and middlemen, they cannot control the price anyhow, and even negotiation is not possible. Thus, they were asked what price for cashew they consider fair. Usually, farmers receive 30-70 KSh per kg for their production. They can get up to twenty kilograms of cashew nuts per one cashew tree. Farmers are selling through the middlemen with fixed prices, and no negotiation over the price is possible. Also, the middlemen usually come to their farms without any prior notice. *“We tried to negotiate every time because the money from cashew nuts is our main source of income, but it is impossible. It is always a lot of them against only one farmer,”* they stated. Many farmers thought negotiation over the price would be much easier if they were in a group.

Farmers considered a fair price of 100-120 KSh per kg. They said TSA promised to buy their products for 80 KSh, but it has yet never happened. Many of them expressed severe concerns because they were counted on that, and they still hope the day will come because they cannot imagine any other way to obtain more money. Farmers would join a cashew cooperative if they had enough financial resources. Otherwise, they could not afford to pay the fees. *“If we get a better price for production, we may consider forming a group. Before that, it is impossible,”* the farmers explained.

Three male farmers roast and sell their cashew nuts. Some part of production is sold to middlemen, some they sell themselves on the market, which is sometimes profitable, but it depends on the market situation. However, none of these possibilities generates significantly higher profits than the prices from middlemen.

The key informant stated that the cooperatives could start as soon as the farmers are prepared for cooperation, but the only problem is the lack of money for production. *“If there is a new factory built that could buy the cashew nuts from the farmers, it would ensure higher prices for their production. There is almost no chance of finding a better price at the local market.”*

5.4.4. Motivation and Support

Farmers did not feel motivated enough to join or form a cooperative group, mainly because of their lack of financial resources. They were unwilling to invest because they needed to pay for things they found more important for their livelihoods.

Farmers think that one of the essential motivational factors is local extension services, which are trying to facilitate self-help groups or help local chiefs to facilitate a way for farmers to come together and try to cooperate.

According to farmers, an important motivational factor would be the existing group they could join. Many of them are unaware of such, so it is challenging. They do not feel strong and skilled enough to start a cooperative on their own.

The key informant stated that farmers need proper training to cooperate and start a group. He thinks TSA or other organizations' training supports the farmers' willingness to cooperate with ease. Another positive factor of the farmers' training is when there is a clear goal, which is beneficial for them.

He added: *“Factory is a motivation for cashew farmers. However, they still need some rules to follow: First, they are impoverished people and need to have the cash immediately. Secondly, the price must be higher than from the middlemen. Thirdly, there can not be high transportation costs for the delivery to the factory. When all these steps are followed, nothing prevents the farmers from working in a group.”*

5.5. Social Factors Influencing the Willingness to Participate

This part of the results contains the information aimed at the second specific objective. Below are stated main social factors that influence farmers' willingness to participate in a cooperative group. The information was obtained from face-to-face interviews with fourteen farmers and four FGD with women farmers.

It was discovered that men were more willing to form a cashew marketing cooperative than women. This is based on the response gathered from both men and women during the interview. Women are more likely to start an argument, thus worsening the cooperation. Another aspect is that men are known for heading businesses regarding selling and marketing. They have a stronger voice among the members and are more

suitable for price bargaining. The author of this thesis considers that women are already part of saving groups that aim to improve livelihoods. Thus, they are no longer interested in belonging to a cashew cooperative. Gyau et al. (2016) found that male farmers are more willing to join cooperatives, which is also proven by this research. However, if women were also willing to join a cashew cooperative, they could use the experiences with cooperation from savings groups. Contrary Fischer & Qaim (2014) found that females are more likely to join cooperatives, which was not proved by this research. It should be added that responses mainly from the women farmers might have been biased since they could have been negatively influenced by the group discussion and opinions of other female farmers.

The age of farmers can also be a factor that influences willingness to cooperate. It was observed that older male farmers are more willing to cooperate with others. This may be because of their experience and better market knowledge, contrary to the new or young cashew farmers. They consider themselves more skilled in the business. Also, they are involved in leadership positions in the community, so they expect others to listen to them.

Furthermore, older female farmers are already experienced with cooperation with others, for example, in the aspect of saving like the savings group. This does not correspond with the research done by Msimango & Oladele (2013) and Burth & Wirth (1990), claiming that older and younger farmers are equally distributed in the cooperative, and age is not a relevant factor. Also, this research is contrary to the study by Fischer & Qaim (2014), which claimed older farmers are not physically able to participate in cooperative activities.

Considering the ethnicity and religion of the respondents, only Muslims and Christians were involved in the sample. However, there was no distinct difference in whether the farmers' religions or ethnicity could affect their willingness to cooperate. Neither of these religions was significantly crucial to determining willingness to cooperate as farmers of both religions are used to working together and listening to each other in peace. The willingness does not depend on their religion, and neither does ethnicity. On the other hand, the research was not taken for a long period of time, only one month, to find out the proper results of these problematics. If another research was conducted, it would be better to last for a longer time and focus more on the problematics of religious groups and arrange the research according to it.

Another aspect researched was the location of respondents if it somehow influences their willingness to join a cooperative. Mainly the market distance and distance to the city were observed. According to the results from interviews, the location was observed to have no impact on farmers' willingness to cooperate. However, farmers grew up in different locations, and all of them are willing to cooperate just the same. Usually, everyone is willing to join cooperatives if specific rules and terms of cooperation are given and adhered to.

The farm size variable could not have been proven, as all farmers were small-scale, with farms no bigger than 1 ha. Eventhough, Burth & Wirth (1990) acknowledged in their research that farm size is not a relevant motivational factor for joining cooperatives. Contrary Fischer & Qaim (2014), in their study, claim that farmers with a larger land area are more likely to participate as they gain more benefits in the cooperative.

6. Conclusions and Recommendations

According to the original proposed question, data were obtained on whether the farmers were willing to form a cooperative group and how much they were willing to cooperate. Cashew cooperatives have a high chance of forming. However, some conditions must be followed. The important part is that farmers can not cooperate as a bigger group. They are used to work alone or only as a group of friends or neighbours because they do not trust any bigger circle.

The most significant problem is the lack of money. Farmers need financial support to make the cashew group work, mainly obtaining higher prices for their production. They would be willing to invest in cooperatives, such as the shared fund, or pay fees only with improved income. If their income was higher, they could also provide the group with better production, as they could afford to buy new cashew tree seedlings. However, farmers already have difficulties paying fees in the savings groups that they consider the most important as they provide loans to pay school fees.

The last problem is that farmers are unwilling to form a cooperative independently as they feel incapable of cooperating with unknown people. Since there is yet no cooperative group they could join, establishing one is even more complicated. They do not feel competent enough due to their lack of skills and knowledge. They lack basic information about cooperatives' existence, rules, and possible benefits. Closely related is the lack of natural leaders. The group cannot work effectively without them, and since there is none, the groups also do not exist.

On the other hand, all the farmers would appreciate working in a group and gain economic benefits such as selling the product and obtaining profit as a group, as well as social benefits in terms of sharing tips and advice. Nevertheless, farmers still need education and information about working as a cooperative group also further training on different topics. If the obstacles are overcome, forming cashew cooperative groups can be possible. Otherwise, it would probably not be possible at all.

The socio-demographic characteristics also play a role in forming a cooperative. Men were more willing to create a cashew marketing cooperative than women. Mainly because they know the business and marketing better and have a stronger voice among the people. Women tend to start arguments more often, which would not be beneficial for

the group. The age of farmers is also a factor that influences willingness to cooperate. Older farmers are more willing to cooperate with others as they are more skilled and tend to be leaders in the community as they are already experienced. Religion does not seem to play a role in the willingness to cooperate in this coastal region.

To conclude, the majority of the farmers are willing to join a cooperative group only if specific rules will be laid out and followed: cooperatives will provide sufficient leadership, the profits will be higher than from other sources, cooperatives will consist of farmers they trust, and the training will be guaranteed. On the other hand, farmers are sceptical about working with other farmers due to a lack of trust and bad experiences. Another option is to cooperate initially only with fellow farmers that they trust. After that, if that cooperation is successful, they would join with other farmers and create the cooperative.

As a recommendation, farmers need more awareness about cooperatives in general. For small-scale farmers, working in a cooperative is, in most cases, beneficial because the prices of their products are not so high, so they cannot afford the machinery and training needed. If farmers were more aware of cooperatives, they could easily decide whether the membership and cooperation would suit them. The knowledge and awareness are closely linked to nearly no cashew cooperatives in the region, so the farmers have not had a chance to try yet.

Another part of the recommendation is about the training. Farmers should be skilled enough to take care of their land and crops correctly. However, the farmers need to expand their knowledge and learn new techniques. For example, simple bookkeeping or management and storing of cashew nuts. Additionally, farmers were interested in more training on how to make savings. If farmers were trained, they would be motivated enough to become part of the cooperative group, as they would feel more skilled.

Other recommendations relate to the general governmental help. Farmers mainly need help from the government in terms of financial support. However, they are aware that it usually does not happen. What can be done through local government is that it can help at least with specifying the rules of a cooperative and providing a place for meetings. Also, the local government could provide knowledge regarding cooperatives and their primary function so that the farmers would understand adequately.

Finally, it is crucial to find natural leaders. Every community or village lacks a leader. Sometimes the leader becomes the community's elder. However, they often lack new ideas and visions. Leaders are important because others can follow and listen to them. It could also be an opportunity for NGOs and the government to find these people and start forming groups. As the field officers are very acquainted with fellow farmers, it should be easy for them to choose the leaders, for example, when some training occurs. Also, if some development NGOs initiate forming cooperatives, it would be easier for other farmers to join this group than start independently.

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