

CO-OPERATIVES AS TOOLS FOR PROMOTING CASHEWNUTS PRODUCTION AND MARKETING IN TANZANIA

Edmund Zakayo³⁶ and Benson O. Ndiege ³⁷

Abstract

Co-operatives continue to be the engine for economic growth in most developing countries. Co-operatives have significantly contributed to the development of agriculture by mobilisation and distribution of financial capital, marketing, and providing solutions to other socio-economic problems. Co-operatives are believed to be essential tools in achieving the development targets, especially in the agricultural sector. The question is, to what extent is this true, and how this happens. This paper contributes to the emerging debate on the roles and critiques of co-operatives as tools for promoting the production and marketing of members' products, using cashewnuts production in Tanzania as a case. The discussion is centred on the role of co-operatives in production especially enabling the preparation of farms and access to inputs. Also, the role they play in the process of collecting and marketing cashewnuts as well as paying farmers. Similarly, the paper highlights challenge those co-operatives have been facing in the process of cashewnuts marketing. The paper ends by providing reflections and concluding remarks which provide lessons and sharing knowledge for replication in other crops of the same context in Tanzania and elsewhere.

I. Introduction

Agriculture is one of the most important tools used in poverty reduction. It raises incomes and improves food security for 80% of the world's poor who live in rural areas and work mainly in farming (World Bank, 2020; Alston and Pardey, 2014). In most developing countries, the majority of people live in rural areas and largely depend on agriculture for their social and economic development (OECD-FAO, 2016). As such, improving the productivity, profitability, and sustainability of the agricultural sector is argued to be the main pathway out of poverty in developing countries (Ahmed and Mesfin, 2017; Dawson et al. 2016). Despite this, agricultural sector development in Africa has been lagging behind. Particularly, the agricultural productivity in Sub-Saharan Africa has been low, because the pieces of land they use for agricultural production are too small, poor technology, lack of agricultural inputs, poor marketing, and others (Shimeles et al. 2018; AGRIEC, 2017; Ahmed and Mesfin, 2017). Thus, agricultural co-operatives have been used as tools for addressing these challenges based on their strong potential to enhance agricultural production and marketing (Ahmed and Mesfin, 2017; Ma and Abdulai, 2017; Chagwiza et al., 2016; Francesconi and Wouterse, 2015). Production in this study included a series of activities after planting cashew, some of the activities include mulching, fertilising and weeding. Marketing includes the action of selling cashewnuts, including market research, advertising, and doing payment to farmers.

Agricultural co-operatives are found in almost every country around the world. They are very well represented in both developed and emerging economies, and contribute to food security and poverty reduction (Reolants and Salvatori, 2019; FAO, 2012). They also facilitate smallholder producers' participation in decision-making, negotiate better terms for engagement in contract farming, and lower prices for agricultural inputs such as seeds, fertiliser, and equipment (Reolants and Salvatori, 2019; Rebelo and Caldas, 2015; Nikolić and Ševarlić, 2013; FAO, 2012). In developing countries, the development of agricultural co-operatives enables smallholder farmers' market participation, increases farm incomes; enhances crop productivity, and lowers production costs. Also, as marketing organisations enhance collective bargaining power which helps the smallholder farmers overcome to limitations that hinder them from utilising business opportunities (FAO, 2012; Huang and Ding, 2016; Zheng et al., 2012; Ma and Abdulai, 2017; Amene, 2017; Wu and Ding, 2018; Onyilo, and Adong, 2019; Bijman and Wijers, 2019).

³⁶ Tanzania Co-operative Development Commission

Tanzania is among developing countries where the agricultural sector plays a vital role in the economy. The contribution of the sector to the economic growth and the development of the country has continued to increase. Agriculture accounted for 28.7% of GDP in 2017 and 58% of employment in 2018. Tanzania's agricultural sector is dominated by small-scale farmers who engage in agricultural export crops such as cashews, coffee, cotton, tea, and tobacco as well as those for food consumption such as rice and maize, and others (Leyaro, and Morrissey, 2013; Kimaro and Hieronimo, 2014; Arce and Caballero, 2018).

Cashewnuts as one of the major cash crops in Tanzania is cultivated in Mtwara, Lindi, Coast, Tanga, Morogoro, Iringa, Mbeya, Ruvuma, Manyara, Singida, and Dodoma regions of the mainland Tanzania. The industry has about 2.1 million direct and more than 500,000 indirect individual beneficiaries in the Southern zone alone (Akyoo and Mpenda, 2014; URT, 2019). The cashew marketing gained a new impetus in the 2007/08 season following the launching of the Warehouse Receipt System (WRS) together with strengthening agricultural co-operatives in the country. Strengthening co-operatives was made to effectively facilitate implementation of the WRS, since the system depends on farmers' produce collected by co-operatives from farmers (URT, 2013). The system was established to control the then flourishing free-riding in the industry to improve producer prices and prevent the 'race to the bottom' (Akyoo and Mpenda, 2014; Likwata and Venkatakrishnan, 2014).

In Tanzania, the government through the Ministry of Agriculture has been facilitating agriculture development in the country by ensuring a good environment for production and marketing, access to inputs and extension service. Besides these initiatives, farmers have been producing without knowing the exact price they will get from their produce and having the assurance of the market. The government of Tanzania has made efforts to address this problem by strengthening co-operative societies to address these challenges (Kangile at al., 2020). However, researchers have had different perspectives on the ability of co-operatives to promote the production and marketing of members' products. Some authors claim that co-operatives have promoted the production and marketing of members' products. For instance, studies by Abate et al., (2014), Tefera et al. (2017), and Ahmed and Mesfin (2017) for Ethiopia, Ruhul and Mahin (2014) for Bangladesh, Onyilo and Adong (2019) for Uganda, and Effiom (2014) in Nigeria show that agricultural co-operatives have a positive impact on the wellbeing of smallholder farmers by improving farm production, productivity, and marketing.

On the other hand, other authors claim that co-operatives have not promoted the production and marketing of members' products. According to Mabunda (2017) and Nkoki-Mandleni and Anim (2014), in South Africa, co-operatives have failed to achieve their objectives of supporting production and marketing of members' products. This is caused by inadequate developmental programs, lack of experience in managing co-operatives, poor infrastructure, and provision of extension services. Amene (2017), in Ethiopia, emphasised that agricultural co-operatives have been supplying inputs to members but they have been performing poorly in terms of collecting members' products during harvest season which slows down the marketing process. Also, Hu et al., (2017) argue that in some rural areas in China farmers do not benefit from co-operatives due to organisation costs and participation of co-operatives which regularly reduces the profit farmers could get from the market. Also, a study conducted by Mhando (2014) in Tanzania discovered that in Kilimanjaro Region some co-operatives lacked transparency, and engaged in fraud and corrupt practices, and thus failed to meet the needs of members which include supporting production and marketing of the products.

Therefore, there are different perspectives from scholars and development practitioners on roles of cooperatives as tools for promoting production and marketing of members' products. This paper aims at addressing this gap by showing how co-operatives have promoted production and marketing of members' products in Tanzania drawing lessons from the cashewnuts sector.

2. Methodology

2.1 Description of the Study Area

This study was undertaken in Mtwara, Lindi, Ruvuma and Coast which are part of Tanzania's 31 administrative regions. These regions are leading producers of cashewnuts crop in the country. They produce almost 95%. For instance, it has been claimed that half million Tanzanians are engaged in small-scale cashewnuts farming, particularly in the south eastern part of the country, including Lindi and Mtwara regions (Thangata, 2020). The Coast Region lies on the eastern part of Tanzania Mainland along the Indian Ocean coastal belt. It shares borders with Tanga Region in the North, Morogoro Region to the west, and Lindi Region in the South. On the Eastern part, the Region shares borders with Dar-es-Salaam Region and the Indian Ocean. Mtwara Region is situated in the southern most regions. It borders Lindi Region to the North, the Indian Ocean to the east and is separated by the Ruvuma River from Mozambique in the south and to the west it borders Ruvuma Region. Ruvuma Region

is situated in the Southern part of Tanzania. It shares borders with the Republic of Mozambique in the South, Lake Nyasa in the West and Iringa Region in the North and North East. It is also bordered by Mtwara Region to the East. The Lindi Region borders Pwani Region, Morogoro Region, Ruvuma Region, and Mtwara Region. Much of the western part of the Lindi Region is in the Selous Game Reserve (PO-RALG, 2020).

2.2 Sampling Techniques and Sample Size

The study population was cashewnuts farmers who are co-operative members and non-members selected from different AMCOS in selected regions. Multi-stage sampling was used to sample respondents whereby AMCOS were first sampled and then respondents were sampled from those groups. This technique involved three stages. The first stage involved selecting AMCOS from each district of Mtwara, Lindi, and Coast Region as well as Tunduru District. In the second stage, in each district, farmers were categorised into agricultural co-operative members and non-members, and then randomly sampled. As such, in each district one AMCOS was sampled randomly, and then in specific AMCOS 5 members and 5 non-members were approached. Finally, 160 farmers (80 members and 80 non-members) were selected for the study from 16 districts in 5 regions. Multistage sampling technique was used since the population of the study constituted a heterogeneous group, in this context members and non-members of agricultural co-operatives. Also, the technique enabled us to compare data from members and non-members. Likewise, purposive sampling was used to sample 26 key informants, who in this case included co-operative leaders, buyers, government officials regulating, promoting and supporting cooperatives, and thos involved in cashewnuts marketing. These include the Cashewnuts Board of Tanzania (CBT), Masasi and Tandahimba District Councils, AMCOS and Co-operative Unions. Others included Tanzania CooperativeDevelopment Commission, and financial institutions such as CRDB Bank, National Microfinance Bank (NMB), Tanzania Postal Bank (TPB), Equity Bank and Yetu Microfinance Bank. The technique helped the study to get technical information which could not be obtained from any other person.

2.3 Methods of Data Collection and Analysis

Data for the study were based on primary and secondary data, as well as practical experience of authors in the Cashewnuts sector. Data were collected through documentary review, questionnaire, and interviews. Questionnaires consisted of open and closed-ended questions which were designed and translated into the Swahili language for easy understanding. Interviews were guided by interview guiding questions that were asked to key informants. This enabled the study to collect detailed information which was obtained by asking probing questions and requesting additional information. Documentary data included data collected from various cashewnuts marketing reports provided by CBT and Cereals and Other Produce Board of Tanzania (CPB). The study also reviewed other studies done by other scholars for study underpinning and linking with study findings collected.

Analysis of data was done separately depending on the nature of data such as qualitative and quantitative data. Quantitative data were analysed using software known as a statistical package for social science, whereby, descriptive statistics was processed to provide a simple summary of the data in form of frequency and percentages. Qualitative data were documented from a written source which is reviewed throughout and also were obtained from interviews with key informants. The study considered triangulation important to crosscheck the validity and truth of the data collected from different actors. This was done by combining several methods and empirical materials in this study, which helped the study to overcome the weakness or intrinsic biases and the problems that come from a single method and empirical study.

A mixed approach of data collection, analysis, and interpretation was adopted by the study. This involved mixing both quantitative and qualitative methods of data collection and analysis. Mixing different methods strengthened and revealed various aspects of empirical reality and defused the shortcomings of using one method in research.

3. Findings and Discussion

3.1. Production Trends of Cashewnuts in Tanzania from 2007 to 2020

Production of cashewnuts in Tanzania has been fluctuating from 2007 to 2020. The change is determined by the price of the past season, climatic condition and availability of agricultural inputs. Production is also determined by access to credit from commercial banks to buy inputs, awareness to the appropriate use of inputs which should be created by CBT and Naliendele Agricultural Research Institute and banks. Some of these factors, especially awareness of farmers on the appropriate use of inputs, access to inputs, and climatic conditions have contributed to the decline of cashewnuts production in 2018/2019 and 2020/2021 (Figure 1).

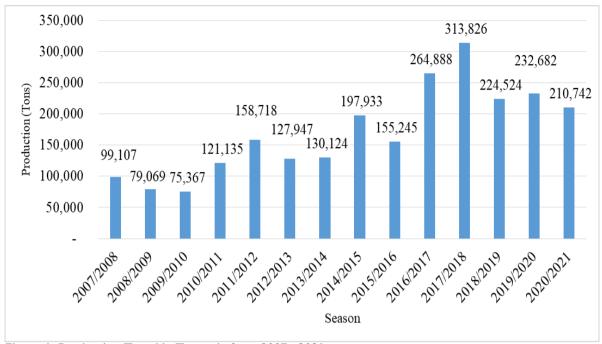


Figure 1: Production Trend in Tanzania from 2007 - 2021

Source: CBT (2021)

3.1.2 Role of co-operatives in promoting cashewnuts production

There were more than 500 primary Agricultural and Marketing Co-operatives Societies (AMCOS) which were organised under 7 co-operative unions in cashewnuts production areas in Tanzania. The unions were Tandahimba Newala Co-operative Union (TANECU), Masasi Mtwara Co-operative Union (MAMCU), Ruangwa, Nanchingwea and Liwale Co-operative Union (RUNALI), Lindi Mwambao Co-operative Union (LMCU), Tunduru Agricultural Marketing Co-operative Union (TAMCU), Coastal Region Co-operative Union (CORECU), and Dar es Salaam Co-operative Union (DARECU). Agricultural co-operatives are used to extend training and other capacity-building initiatives in post-harvest handling techniques as well as quality control. Also, co-operatives facilitate access to credit to farmers from government and financial institutions. In the 2019/2020 season, a total of Tshs 5,219,332,185 (USD 2,254,737.8) was provided to farmers through AMCOS (Table I). The government and financial institutions provided support to farmers through AMCOS due to different reasons, including: AMCOS being an organising tool which brings farmers together and AMCOS work for their members and non-members and aim at alleviating poverty from the community. Likewise, AMCOS are only business organisations that involve members and non-members in decision-making related to the marketing of cashewnuts. Finally, AMCOS help the government and banks in the follow-up of loan repayment as well as providing the production information of farmers.

Table I: Agricultural inputs loans provided to farmers in 2019/2020 Season

| S/N | Region | Benki | Farmers | Loans provided to farmers |
|---------------|-----------|--------|---------|---------------------------|
| $\overline{}$ | Ruvuma | CRDB | 359 | 587,015,816 |
| | | TPB | | 191,950,000 |
| | | CBT | | 468,081,500 |
| | Sub Total | | 359 | 1,247,047,316 |
| 2 | Coast | NMB | 214 | 272,985,000 |
| | | Equity | 165 | 275,300,000 |
| | Sub Total | | 379 | 548,285,000 |
| 3 | Lindi | NMB | 734 | 2,181,678,311 |
| | | CRDB | 524 | 657,637,355 |
| | | Yetu | 782 | 584,684,203 |
| | Sub Total | | 2,040 | 3,423,999,869 |
| 4 | Mtwara | | | |
| | Total | | 2,778 | 5,219,332,185 |

Source: CBT, NMB, CRDB bank, Equity Bank and Yetu Bank (2020)

The study found that in the cropping season of 2021/2022 agricultural co-operatives supplied inputs costing Tshs 42,842,025,840. These inputs reduced the challenge of access to inputs but they did not solve the challenge completely. One of the weaknesses noted was that the number of inputs supplied did not suffice the needs of farmers, the factor used in determining the amount was the quantity produced by farmers in the past season instead of the number of trees. The amount of sulphur bags needed in a specific farm is determined by the number of trees or farm size, and not kilograms obtained in the past season.

The findings showed that the role of co-operatives in promoting cashewnuts production has contributed to increased production to some farmers but has not managed to increase production at the national level. Cashewnuts production needs the active involvement of different stakeholders including agricultural cooperatives, CBT, research institutes, District Councils, financial institutions, and others. Active involvement of one stakeholder benefited a few farmers who were closely reached or served. Therefore, to address production challenges and increase cashewnuts production, all stakeholders should work together by involving farmers in all processes.

3.2 Marketing of Raw Cashewnuts in Tanzania

3.2.1 Traditional raw cashewnuts marketing system

Interviews with key informants from CBT revealed that since 1991 marketing raw cashewnuts in Tanzania has undergone significant changes. In 1991, the system was liberalised, allowing farmers to sell their raw cashewnuts to any buyer. That is to say, it involved buyers buying raw cashewnuts directly from farmers, and some cooperatives acted as agents for private buyers to buy from farmers on their behalf. Under the traditional system, traders and buyers agreed to intentionally delay purchasing raw cashewnuts, causing farmers to panic and accept any price. Also, the system attracted a large number of intermediaries, which led to higher marketing and transaction costs that further reduced farm gate prices. The key informants from co-operatives unions revealed that the traditional cashewnuts marketing system was characterised by poor quality control and grading of raw cashewnuts, low bargaining power of farmers, and lack of correct cashewnuts production statistics. These challenges showed the need for strengthening agricultural co-operatives to take control of marketing raw cashewnuts in Tanzania under the Warehouse Receipt System (WRS).

3.2.2 The status of raw cashewnuts marketing system in Tanzania

Interviews with the key informants from co-operative unions and CBT revealed that marketing of raw cashewnuts from the 2007/2008 cropping season was done through agricultural cooperatives. The role of co-operatives in marketing raw cashewnuts gained momentum when a Warehouse Receipt System (WRS) was put in place in 2007. This means that all raw cashew collected had to be auctioned via co-operatives at an auction managed by the cashewnuts Board of Tanzania (CBT). From 2007/2008 private buyers were no longer allowed to buy cashews directly from farmers or Primary Societies and all raw cashewnuts were marketed through primary societies and co-operative unions for sale at auction.

Warehouse receipts system in this context is a kind of trade whereby cashewnuts is stored in a licensed warehouse, the owner of the commodity receives warehouse receipt which certifies the title of deposited cashewnuts as of specific ownership, value, type, quantity, and quality (grades). The warehouse receipt is therefore a document in the hard form issued in the warehouse by the Warehouse operator, stating the commodities certified in the receipts are held in the warehouse and at the disposal of the person named thereon. The warehouse receipt system is one of the important components of co-operatives in marketing raw cashewnuts of which co-operatives as owners deposit cashewnuts to licensed warehouses. According to the key informants from CBT, the introduction of WRS started with low acceptance from stakeholders such as buyers, farmers and others due to their interest in the cashewnuts business. However, WRS gained momentum from 2009/2010 and 2010/2011 after farmers and buyers realised benefits from the system compared to the traditional system of selling cashewnuts. Statistics shows that from the season when WRS gained momentum the prices of raw cashewnuts increased from 0.26 USD to 0.47 USD (CBT, 2009). The price motivated farmers to take care of their farms and using pesticides, which eventually increased production from 99,106.720 tons in 2007/2018 season to 313,826.386 tons in 2017/2018 (Figure 1). The WRS and government interventions of marketing raw cashewnuts from Tanzania to Asia led competition and increased demand, and eventually the price of cashew increased from 0.94USD in 2010/2011 to 1.78USD in 2017/2018 (CBT, 2018).

3.2.3 Role of co-operatives in marketing of raw cashewnuts

Marketing of raw cashewnuts involves different stakeholders such as co-operatives, Tanzania Co-operative Development Commission (TCDC), Warehouse Receipts Regulatory Board (WRRB), and cashewnuts Board of Tanzania (CBT), buyers, District councils, Warehouse Operators and others. Among these stakeholders, co-operatives play a great role in marketing raw cashewnuts from collection to payment of farmers. The Co-operative model plays a major role in linking all stakeholders together at different stages. Marketing of raw cashewnuts in Tanzania involves different stages; whereby different stakeholders play different roles to facilitate marketing activities. In playing their role, co-operatives consider the interest of both co-operatives' members and non-members both enjoying equal benefits from cooperatives. The structure of the marketing chain is as depicted in Figure 2. Farmers collect their raw cashewnuts to AMCOS, then transport to Warehouse Operators following directives of co-operatives unions and eventually sell to buyers through auction with the facilitation of co-operative unions and CBT.

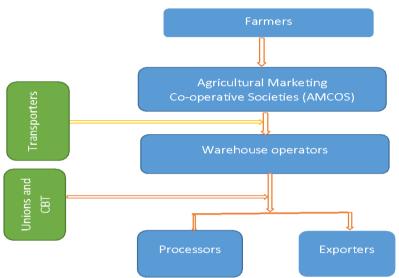


Figure 2: Schematic representation of the cashewnuts marketing chain

3.2.3.1 Collection of raw cashewnuts from farmers

Collection of raw cashewnuts involves AMCOS receiving cashewnuts from farmers, after being dried for at least three days, sorting and grading to required standards. Agricultural marketing co-operative society inspects the cashewnuts if it meets the required standards as speculated in specific season' guidelines. If it qualifies, it is received and a farmer is given a Goods Receipt Note (GRN) which shows the name, quantity, name of AMCOS, account number and phone number. Thereafter, AMCOS pack collected cashewnuts in special bags each carrying 80 kg and named the produce of Tanzania. Collection of raw cashewnuts at AMCOS level has reduced cost to farmers taking their cashewnuts to markets.

One of the challenges noted at this stage is poor record keeping at AMCOS level. The collection of raw cashewnuts is done through AMCOS' branches located almost in each village. However, unfaithful clerks record non-existing cashewnuts and provide GRN to a person who did not collect cashewnuts to AMCOS. As such, the same quantity of cashewnuts of farmers are recorded at AMCOS level but not recorded in documents that would be taken to the warehouse and co-operative unions for reference. Therefore, farmers find themselves having GRN but their information is only at the AMCOS level, which means that they cannot be paid. For example, in 2018/2019 season, the cashewnuts information of 1,063 farmers was not found at the union level and thus their cashewnuts were not collected to the warehouse operator. Also, the quantity of 1,389 farmers was reduced at AMCOS level, which both amounted to 2,650,671,120Tshs (1,144,975.5USD) in Coast and Lindi Regions. Co-operative officers revealed that this problem recurred every season in different AMCOS. Another challenge is the collection of low-quality cashewnuts from farmers. This was caused by AMCOS lacking a moisture metre and experts for testing quality at AMCOS level. The guidelines for quality control stipulate that harvesting generally involves collecting nuts when they have dropped. The crops should not be harvested while they have not fallen, sorted, graded and dried in the sun for at least three days consecutively. Despite these directives still testing of quality is important since eyes cannot be used to measure quality. Due to the lack of experts and moisture metres, the AMCOS have been collecting cashewnuts with poor quality. The collection of low-quality cashewnuts has led cashewnuts to be rejected at the warehouse. For example, in the 2018/2019 season 899,163 kgs were rejected at warehouses and thus returned to members (Table 2).

Table 2: Low-quality cashewnuts returned to farmers, 2018/2019

| Region | District | Quantity (KGS) |
|--------|------------|----------------|
| Coast | Mkuranga | 249,609 |
| | Liwale | 920 |
| | Lindi | 3,320 |
| Lindi | Kilwa | 17,040 |
| | Nachingwea | 7,526 |
| | Ruangwa | 11,129 |
| M | Masasi | 181,465 |
| Mtwara | Newala | 428,154 |
| Total | | 899,163 |

Source: CPB (2020)

3.2.3.2 Transportation of raw cashewnuts to warehouses

Transportation of raw cashewnuts from AMCOS to warehouse operators is coordinated by co-operative unions. Before opening the season, co-operative unions advertise tenders for transporting cashewnuts from AMCOS to warehouses. Transporters are required to submit their application to the union which would specify the quantity of cashewnuts they can transport. Their applications are received by the unions and reviewed, and transporters who qualify are informed and invited to sign a contract with co-operative unions for transporting cashewnuts in a specific season. After collection of raw cashewnuts AMCOS report to the co-operative union, which instructs registered transporters to go to specific AMCOS and carry cashewnuts to warehouses.

3.2.3.3 Warehouse operators receiving raw cashewnuts

The warehouse operator receives cashewnuts from AMCOS, tests their quality and count them. If they qualify AMCOS receive the quality certificate and warehouse receipts showing the name of AMCOS, quantity, and quality (grades) (Figure 3). These documents are placed together with the special form filled with names of farmers responsible for specific raw cashewnuts received. A copy of these documents is filled by AMCOS and submitted to the co-operative unions for future references.

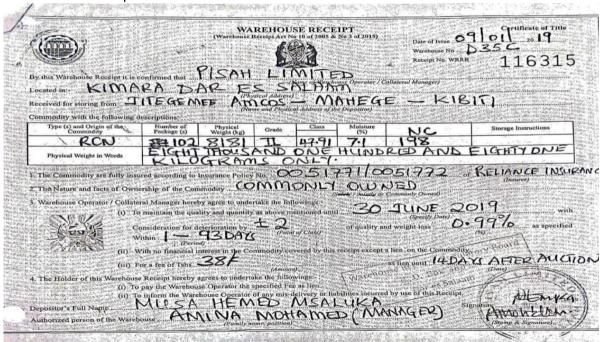


Figure 3: Sample of Warehouse Receipt

3.2.3. Conducting raw cashewnuts auctions

Cashewnuts auctions in Tanzania are carried out by CBT together with co-operative unions. The cashewnuts Board of Tanzania (CBT) in collaboration with co-operative unions prepares a timetable for auctions (Figure 4), which is shared with stakeholders. The timetable specifies the name of the union, number of auctions, location, and date. Thereafter, the union prepares and shares the sales catalogue with the registered buyers, who should bid the amount of cashewnuts they want to buy and indicate the price they would offer for a specific catalogue.

CASHEWNUT BOARD OF TANZANIA AUCTIONS TIMETABLE FOR THE SEASON 2020 - 2021

| WEEK DATE DAY UNION NAME DISTRICT AREA OF AUCTION | | | | | |
|---|----------------------|------------------------------|-----------------|----------------------------------|--|
| WEEF | 09/10/2020 FRIDAY | MAMCU | MASASI | LUATALA AMCOS | |
| 1 | 09/10/2020 FRIDAY | TANECU | TANDAHIMBA | TANDAHIMBA TOWN | |
| | 10/10/2020 SATURDAY | LINDI MWAMBAO | LINDI MUNICIPAL | MNAZI MMOJA AMCOS | |
| | 11/10/2020 SUNDAY | RUNALI | NACHINGWEA | OFISI KUU YA RUNALI - NACHINGWEA | |
| | 16/10/2020 FRIDAY | TANECU | NEWALA | NEWALA TOWN | |
| | 16/10/2020 FRIDAY | MAMCU | NANYUMBU | NAMIJATI AMCOS | |
| | 17/10/2020 SATURDAY | LINDI MWAMBAO | MTAMA | MMANGAWANGA AMCOS | |
| | 18/10/2020 SUNDAY | RUNALI | RUANGWA | GHALA KUU - LIPANDE | |
| | 22/10/2020 THURSDAY | TAMCU | TUNDURU | MUMSASICHEMA | |
| | 23/10/2020 FRIDAY | TANECU | TANDAHIMBA | NAMINDONDI | |
| 3 | 23/10/2020 FRIDAY | MAMCU | MTWARA DC | LIBOBE AMCOS | |
| | 24/10/2020 SATURDAY | LINDI MWAMBAO | KILWA | TAPWA AMCOS | |
| | 25/10/2020 SUNDAY | RUNALI | LIWALE | KITUO CHA MALIPO - LIWALE | |
| | 29/10/2020 THURSDAY | TAMCU | TUNDURU | MLINGOTI MASHARIKI | |
| | 30/10/2020 FRIDAY | TANECU | NEWALA | MPUTI-KITANGARI | |
| 4 | 30/10/2020 FRIDAY | MAMCU | MASASI | TUAMINIANE AMCOS | |
| 7 | 31/10/2020 SATURDAY | LINDI MWAMBAO | MTAMA | PANGATENA AMCOS | |
| | 01/11/2020 SUNDAY | RUNALI | NACHINGWEA | OFISI KUU YA RUNALI - NACHINGWEA | |
| | 04/11/2020 WEDNESDAY | | MKURANGA | UKUMBI WA PARAPANDA | |
| | 05/11/2020 THURSDAY | TAMCU | TUNDURU | MLINGOTI MAGHARIBI | |
| | 06/11/2020 FRIDAY | TANECU | TANDAHIMBA | MAHEHA | |
| 5 | 06/11/2020 FRIDAY | MAMCU | NANYUMBU | MIKANGAULA AMCOS | |
| 3 | 07/11/2020 SATURDAY | LINDI MWAMBAO | LINDI MUNICIPAL | KITUMIKI AMCOS | |
| | 08/11/2020 SUNDAY | RUNALI | RUANGWA | GHALA KUU - LIPANDE | |
| | 11/11/2020 WEDNESDAY | A MARKET CONTRACTOR AND A | KIBITI | KIBITI | |
| | 12/11/2020 THURSDAY | TAMCU | TUNDURU | NAMITILI | |
| | 13/11/2020 FRIDAY | TANECU | NEWALA | NANGURUWE | |
| 6 | 13/11/2020 FRIDAY | MAMCU | NANYAMBA | CHITONDOLA AMCOS | |
| | 14/11/2020 SATURDAY | LINDI MWAMBAO | KILWA | SISI KWA SISI | |
| | 15/11/2020 SUNDAY | RUNALI | LIWALE | KITUO CHA MALIPO - LIWALE | |
| | 18/11/2020 WEDNESDAY | | KIBAHA | OFISI ZA CORECU HO | |
| | 19/11/2020 THURSDAY | TAMCU | TUNDURU | NAMIUNGO | |
| | 20/11/2020 FRIDAY | TANECU | TANDAHIMBA | NACHUNYU | |
| 7 | 20/11/2020 FRIDAY | MAMCU | MASASI | CHIKUNDI AMCOS | |
| | 21/11/2020 SATURDAY | LINDI MWAMBAO | MTAMA | MTUA AMCOS | |
| | 22/11/2020 SUNDAY | RUNALI | NACHINGWEA | OFISI KUU YA RUNALI - NACHINGWEA | |
| | 25/11/2020 WEDNESDAY | | MKURANGA | UKUMBI WA PARAPANDA | |
| | 26/11/2020 THURSDAY | TAMCU | TUNDURU | MAJIMAJI | |
| | 27/11/2020 FRIDAY | TANECU | NEWALA | MALATU | |
| 8 | 27/11/2020 FRIDAY | MAMCU | NANYAMBA | PACHANI AMCOS | |
| | 28/11/2020 SATURDAY | LINDI MWAMBAO | LINDI MUNICIPAL | NG'APA AMCOS | |
| | 29/11/2020 SUNDAY | RUNALI | RUANGWA | GHALA KUU - LIPANDE | |
| | 02/12/2020 WEDNESDAY | F2700000, 4000 NM 550 (450 0 | KIBITI | KIBITI | |
| | 03/12/2020 THURSDAY | TAMCU | TUNDURU | NAMSOSA | |
| | 04/12/2020 FRIDAY | MAMCU | MTWARA DC | MWAMKO MADIMBA AMCOS | |
| 9 | 04/12/2020 FRIDAY | TANECU | TANDAHIMBA | CHINGUNGWE | |
| | 05/12/2020 SATURDAY | LINDI MWAMBAO | MTAMA | MNOLELA AMCOS | |
| | 06/12/2020 SUNDAY | RUNALI | LIWALE | KITUO CHA MALIPO - LIWALE | |
| | 09/12/2020 WEDNESDAY | | KIBAHA | OFISI ZA CORECU HO | |
| | 10/12/2020 THURSDAY | TAMCU | TUNDURU | LIGUNGA | |
| 10 | 11/12/2020 FRIDAY | MAMCU | NANYAMBA | NJENGWA KASKAZINI AMCOS | |
| | 11/12/2020 FRIDAY | TANECU | NEWALA | MKOMA 1 | |
| | 13/12/2020 SUNDAY | RUNALI | NACHINGWEA | OFISI KUU YA RUNALI - NACHINGWEA | |
| 11 | 20/12/2020 SUNDAY | RUNALI | RUANGWA | GHALA KUU - LIPANDE | |
| 12 | 27/12/2020 SUNDAY | RUNALI | LIWALE | KITUO CHA MALIPO - LIWALE | |
| 13 | 03/01/2021 SUNDAY | RUNALI | NACHINGWEA | OFISI KUU YA RUNALI - NACHINGWEA | |
| 14 | 10/01/2021 SUNDAY | RUNALI | RUANGWA | GHALA KUU - LIPANDE | |
| 15 | 17/01/2021 SUNDAY | RUNALI | LIWALE | KITUO CHA MALIPO - LIWALE | |
| 13 | I TOTIZOZI SUNDAI | KUNALI | IN WALL | INTO CHA MALILO - LIWALE | |

Figure 4: Sample of Auctions Timetable for the Season 2020/2021

The auctions are attended by cashewnuts farmers, co-operative leaders, CBT representatives, buyers, local government leaders and other interested people. Before starting the auction, CBT representatives provide the market situation globally so that farmers can decide to sell cashewnuts or not. Plate I shows farmers at a cashewnuts auction observing bid opening. Thereafter, the opening of bids is done by the manager of the co-operative union, who reads all letters submitted by buyers, and farmers decide whether to sell their cashewnuts or not based on the price provided by buyers. After the decision, the co-operative union Manager announces selected buyers, and then co-operative unions prepare the sales invoice within 24 hours which is issued to buyers.



Figure 5: Farmers at the Cashewnuts auction observing bid opening

Raw cashewnuts are marketed through AMCOS and co-operative unions, the decision of selling Cashewnuts is done at public meetings whereby farmers and non-farmers attend and make the decision since there is no restriction and control. This challenges the decision-making process at the co-operative, whereby only members have the power to make the decision. This shows a need of sensitising non-member farmers to join co-operatives, and also co-operatives should have products that would attract non-members to join.

In addition, although the government instructs all cashewnuts to be sold through WRS, some of the farmers were found selling their cashewnuts outside the WRS "Kangomba System". This system is dangerous to farmers since cashewnuts is sold at a lower price compared to the market price, some farmers sell at a difference of more than 100%. Apart from loss to farmers, also the government gets incorrect information on the collected quantity of cashewnuts. Similarly, "Kangomba system" has led other stakeholders including AMCOS, CBT, cooperative unions, local government, and Tanzania Co-operative Development Commission, to lose fees and levy especially when raw Cashewnuts is not taken to auction.

Among the farmers approached for this study, 40% reported selling part of their Cashewnuts outside the WRS just to meet their needs at the households' level. When asked why they make such a decision, they revealed that the season starts in October or early November while they have Cashewnuts in their home by September. Leaders from co-operative unions supported that "Kangomba system" is difficult to control because when farmers face challenges they request buyers to buy their cashewnuts so that they can get money to meet their immediate needs. To control this challenge, an alternative source of funds for farmers to meet their urgent needs and demands should be found. Since the force involved in this business comes from both parties, i.e. buyers and farmers, and it is their secret and agreement between them, thus difficult to find the evidence. After that, the culprit should be punished regardless of their position or status.

3.2.3.5 Payment to farmers

Payment of cashewnuts is based on the sales invoice and is done to the settlement account which is under cooperative unions, then transferred to specific AMCOS' accounts after deduction of various fees stipulated in specific cropping season for different stakeholders including co-operatives, CBT, Tanzania Agricultural Research Institute (TARI) Naliendele and District Councils. Agricultural marketing co-operative society after the auction prepares a list of farmers to be paid per warehouse receipt which is channelled to the bank for account verification and payment of farmers in their respective bank accounts. Despite this role of AMCOS paying

farmers, the study found limited financial management skills among AMCOS' managers. The study found 70% of AMCOS managers manage transactions of more than one billion shillings with limited financial management skills.

In each season, managers are responsible for coordinating all-season activities involving specific AMCOS. These activities include receiving Cashewnuts from farmers, transporting cashewnuts to the warehouse, preparing payment to farmers after deduction of all fees and contributions approved by the government, and paying labourers involved in different AMCOS activities. These activities need financial management skills, but due to limited skills, their implementations have been ineffective thus causing losses to AMCOS. Based on this scenario co-operative officers have been involved in preparing farmers' payments. This questions their major role of approving payments and making inspections. This is to say they approve what they have prepared. Co-operative officers involved in preparing and approving payments of farmers have made AMCOS not to see the need of employing a qualified person who can prepare payments and co-operative officers remain with the role of supervision in general. This shows the need of co-operatives to employ a qualified and skilled person in financial management, who will be responsible for preparing all payments and Co-operative officers, remain with their role of approving payments.

Based on the role played by agricultural co-operatives in the marketing of cashewnuts, different stakeholders such as CBT, District Councils, and banks show their experience regarding the role of co-operatives in the sector as follows:

One of the functions of CBT is to regulate and control the quality of cashewnuts, and ensure all cashewnuts produced by farmers is sold. Before the introduction of the warehouse receipt system the control of the market was difficult, and thus some farmers were exploited by few buyers, hence did not benefit from cashewnuts production. Agricultural co-operatives have played a big role in collecting and selling cashewnuts on behalf of farmers. This has helped CBT to coordinate effectively all processes of collecting, marketing, and farmers getting payment. Therefore, the existence of agricultural co-operatives has made CBT fulfil its responsibilities smoothly with little resources (22 May 2021).

Our District Council depends much on its source of revenue to implement different projects for community wellbeing. Before the introduction of the warehouse receipts system, our District Council used more resources to collect revenue, though we did not collect revenue by a hundred percent and thus many projects were not implemented as planned. Currently, our District Council does not use any resource to collect revenue, but we ensure all cashewnuts, produced is sold within our District and collection of revenues is done through cooperatives facilitated by Co-operative Officers who approve farmers' payment (21 May 2021).

Our bank provides loans to farmers to support their production, especially during the flowering season. Through agricultural co-operative we provide loans directly to farmers after approval of AMCOS leaders. Agricultural co-operatives have been a good link between farmers and the bank. This is due to the role they play; including ensuring our bank that a specific farmer sells his/her Cashewnuts through their AMCOS and produces the stated quantity. Also, during the payment process, AMCOS ensures farmers who got loans from the bank their payments are done through which motivates our bank to provide more loans to farmer (25 May 2021).

All cashewnuts buyers need to get assurance of getting cashewnuts, so that they can request loans from the bank for bonds at CBT and renting warehouses. Through co-operatives, we have the assurance of getting quality cashewnuts which is acceptable at the international market. When we go to other countries, we normally find it difficult to get cashew, because the market is open and buyers buy from any farmers and thus the quality control is difficult and assurance of getting the required quantity is difficult. The warehouse receipt system enables us to bid the quantity we want and since the market is organised, every buyer is confident of getting cashewnuts (25 May 2021).

3.2.4 Farmers opportunities in raw cashewnuts AMCOS

Table 2 shows opportunities experienced by farmers from agricultural co-operatives marketing cashewnuts. These include getting a good price (39%), which is a result of controlling competition of buyers who did not exist before. In each season, CBT sets the minimum price which controls buyers in setting prices. Another opportunity noted was getting paid timely (26%), which is set by CBT that farmers should get their payment within fourteen days after the auction, which is a convenient time for buyers. AMCOS organising farmers together (10%) thus increases the bargaining power of farmers. Another opportunity is reducing transaction cost (13%), whereby marketing of raw cashewnuts has cost implications such as finding buyers within and outside Tanzania, conducting market auctions, supply of bags, among others. All these are covered by the government

and other stakeholders, who ultimately reduce the burden on the farmers. Government protecting farmers' interest (12%) is ensured by controlling WRS. The analysis shows that opportunities from AMCOS members and non-members were found the same, which implies that when AMCOS marketed raw cashewnuts they provided equal opportunities to members and non-members.

Table 3: Opportunities of farmers cashewnuts AMCOS

| Opportunity | Frequency | Percent (%) |
|---|-----------|-------------|
| Getting good price | 172 | 39 |
| Getting payment on time | 117 | 26 |
| Reducing transaction cost | 56 | 13 |
| Government protecting farmers' interest | 54 | 12 |
| AMCOS organising farmers together | 46 | 10 |
| Total | 445 | 100 |

In addition, the study found the findings of quantitative data corroborate the qualitative data findings. Famers from Tandahimba, Masasi, Liwale, Nachingwea, Tunduru, and Kibiti remarked different benefits obtained in the process of Cashewnuts marketing as follows:

Before the introduction of WRS, buyers bought our cashewnuts at the average price of 0.26 USD. This was done intentionally as they were sure that we had no option of selling our cashewnuts. But I express appreciation to our government after introducing the WRS which gives us a good price (more than I USD). That is why I always regret why our government did not introduce this system since the 1990s to make our cashewnuts have value (17 May 2021).

I appreciate our government for organising farmers and forming agricultural co-operatives in our district which has made us respected by buyers. Before the introduction of WRS buyers bought our cashewnuts at a lower price, knowing we have no option of selling our cashewnuts, this made us sell our cashewnuts at a loss compared to expenses incurred in production. Farmers through our agricultural co-operatives have the power to decide on accepting or rejecting the price offered by buyers. Also, we present our needs to the government which are considered for our development, and therefore we see a co-operative as a tool which help us to raise our voice to the government and other stakeholders (18 May 2021).

In ten (10) years, I have experienced social and economic changes in my household. I have been selling my Cashewnuts through the agricultural co-operative and I have been receiving the payment within two weeks, which was difficult in the past years. Before the introduction of WRS the price of Cashewnuts was less than 0.8 USD, payments were delayed and sometimes not obtained. Agricultural co-operatives have ensured all Cashewnuts produced are sold at a good price, this has enabled me to have an assurance of getting income every season which is directed to the social and economic development of my households (18 May 2021).

The life of farmers in the southern zone especially Mtwara and Lindi Regions depends much on cashewnuts crops to get income for their survival. We use the income obtained to manage our life by meeting household needs, especially food, education for our children, health services, housing, clothes, and others. Therefore, when the flowering season starts, we normally have no money to buy sulphur dust and sulphur blowers along with other pesticides. Based on this challenge we have been getting loans from banks through our co-operatives to support production (19 May 2021).

Before the introduction of WRS every farmer was selling his/her cashewnuts on his/her own, either to a local processor, middlemen or agricultural cooperatives. The price offered was very small compared to the incurred cost. The government after introducing WRS and strengthening our agricultural cooperatives, farmers are organised together, we collect and sell our cashewnuts at a good price and get payment in time (19 May 2021).

The price increase for our cashewnuts has changed our life compared to the situation before the introduction of the warehouse receipt system. The obtained income has helped me to improve my house and build shops and eventually life in my household has changed and we are happy for our cashewnuts (19 May 2021).

The findings show price differences between before and after the introduction of WRS which depict the role of agricultural cooperatives. However, the price of cashewnuts from 2018/2019 up to 2021/2022 has declined compared to the cropping season of 2017/2018. This shows although agricultural co-operatives have provided the bargaining power for farmers, the price of raw cashewnuts is determined by various factors, which in most

cases are global factors. This shows the need for agricultural co-operatives adding values to cashewnuts collected from farmers through processing. Value addition which is connected to industrialisation is important not only to farmers but also the government as it provides employment.

3.3 The Role of AMCOS in Industrialisation

The role of agricultural co-operatives is important in promoting cashewnuts production. It ensures the availability of raw materials for industries especially the local processors. It also enables co-operative unions to get revenue that is used to finance the establishment of industries for value addition. Due to the decline of raw cashewnuts production and price, as well as the constant price of processed cashewnuts, the Ministry of Agriculture through the Tanzania Co-operative Development Commission has sensitised the unions to establish their commercial cashewnuts farms. These farms would increase production and hence more revenue which partly can be used to finance industries. However, agricultural co-operatives have not adequately taken advantage of this opportunity of establishing their industries. On the other hand, Tandahimba Newala Co-operative Unions (TANECU) has started constructing its processing industry. The industry is expected to benefit the union members. Other co-operative unions dealing with cashewnuts can therefore learn from Tandahimba.

In addition, agricultural co-operatives are essential business models that play meaningful roles towards industrialization hence putting the members at the centre. If co-operatives are strengthened their contribution to industrialization would be high. The focus should be to continue reorganising co-operative societies to become co-operative enterprises. That is, they should focus not only on services but also on doing business. This should be hand in hand with the Tanzania Co-operative Development Commission continuing to strengthen Co-operative internal management by ensuring that co-operatives are managed as per available regulatory frameworks. On the other hand, agricultural co-operatives have to take internal measures that would help build co-operative entrepreneurship. They should also take advantage of the existing opportunities on the availability of raw cashewnuts in Tanzania to contribute to industrialization, therefore, putting members at the centre.

4. Discussion of the Findings

The study found that agricultural co-operatives sell cashewnuts from members and non-members and facilitate the collection of district council levy. They also use different stakeholders when they want to reach farmers. This role depicts the implementation of the co-operative principles, especially role seven that concerns the community. This principle has been used as an instrument for raising their voices especially when farmers want to communicate to the Government and other stakeholders.

In addition, the findings show that co-operatives are highly relevant and important in the realisation of the Sustainable Development Goals (SDGs). Co-operatives have shown their effort in poverty reduction especially in southern regions which mostly depend on cashewnuts production as one of their major economic crops. Similar findings are reported by Abate et al., (2014); Mhando (2014) Ruhul and Mahin (2014); Effiom (2014); Tefera et al. (2017); and Ahmed and Mesfin (2017). These findings are however contrary to studies by Mabunda (2017); Amene (2017); Hu et al., (2017); Nkoki-Mandleni and Anim (2014) and Mhando (2014). The studies reported a lack of experience in managing co-operatives. A similar challenge is also reported in the study area. However, it has not stopped the co-operatives from promoting production and marketing of cashewnuts.

The findings show that the improved cashewnuts marketing by co-operatives has improved the livelihood of the members. A study by ILO and ICA (2015) supported this idea as well. The study reported that, in Tanzania, agricultural co-operatives are well recognised for their efforts in poverty reduction. These co-operatives do those things such as identifying economic opportunities for their members, facilitating access to loans, collecting cashewnuts from farmers, transporting and selling raw cashewnuts.

In addition, the study revealed that co-operatives serve both members and non-members equally. This is good as it portrays a co-operative principle of concern for the community. This has however made non-members not see the need of joining cooperatives, since they could sell through AMCOS and get paid timely just like the members. Co-operatives get levy from both members and non-members of co-operatives, but the income obtained is used for running the daily operations of the AMCOS, and not providing special services to members. In the long run, this might weaken the co-operatives, and may cause members to withdraw from their co-operatives.

5. Conclusion and Recommendations

This study has shown how agricultural co-operatives have promoted cashewnuts production and marketing. The findings show that agricultural co-operatives are the best models that have contributed to improve the livelihood of cashewnuts farmers and non-farmers. Agricultural co-operatives ensure multiplier effects ranging from farm productivity to economic growth and poverty reduction at the household level. After experiencing how agricultural co-operatives have succeeded in the cashewnuts sector, they are seen as the best model which can be used in other crops in Tanzania and other countries in the world.

Furthermore, the study found a number of challenges facing co-operatives in the process of marketing cashewnuts. These include limited financial management skills among AMCOS leaders, poor record keeping at AMCOS level, collection of low-quality cashewnuts from farmers, low investment to industrialisation and farmers selling cashewnuts outside the WRS "Kangomba". Deliberate efforts have to be made by various stakeholders involved in cashewnuts to tackle challenges faced by co-operatives in marketing cashewnuts. For instance, emphasis from TCDC to AMCOS on employing qualified accountants is recommended. Education should continue to be provided to farmers on quality of cashewnuts, also educating them on the importance of saving. Also, agricultural co-operatives need to invest in industrialisation that considers farmers' needs. These findings would contribute to the existing debate on the contribution of agricultural co-operatives to production and marketing of farmers produce.

In conclusion, the results of the study would as well provide information to policy makers and other stakeholders on how to strengthen agricultural co-operatives to promote cashewnuts production and marketing in Tanzania. These findings stress the need for appropriate working environments that enable agricultural co-operative to improve the working environment and have skilled people who can transform agricultural co-operatives, especially primary co-operatives.

References

- Abate, G. T., Francesconi, G. N., and Getnet, K. (2014). Impact of Agricultural Co-operatives on Smallholders Technical Efficiency: Empirical Evidence from Ethiopia. *Annals of Public and Co-operative Economics*, 85(2), 257-286.
- AGRIEC (2017). Why is Agriculture lagging in Africa? [http://www.agriec.co.za/blog/posts/why-is-agriculture-lagging-in-africa] Site visited on 21/05/2020.
- Ahmed, M. H., and Mesfin, H. M. (2017). The impact of agricultural co-operatives membership on the wellbeing of smallholder farmers: Empirical evidence from eastern Ethiopia. Agricultural and Food Economics, 5(1), 6.
- Akyoo, A., and Mpenda, Z. (2014). Policy Imperatives for Control of Market Exchange Failure in the Cashewnuts Industry. *Natural Resources, Agricultural Development and Food Security: International Research Network, 14*(3).
- Alston, J. M., and Pardey, P. G. (2014). Agriculture in the global economy. Journal of Economic Perspectives, 28(1), 121-46.
- Amene, T. B. (2017). Assessment of Factors Affecting Performance of Agricultural Co-operatives in Wheat Market: The case of Gedeb Hasasa District, Ethiopia. *African Journal of Business Management*, 11(16), 393-414.
- Arce, C., and Caballero, J. (2018). Tanzania: Agricultural Sector Risk Assessment. World Bank
- Bijman, J., and Wijers, G. (2019). Exploring the inclusiveness of producer cooperatives. *Current Opinion in Environmental Sustainability*, 41, 74-79.
- Chagwiza, C., Muradian, R., and Ruben, R. (2016). Co-operative membership and dairy performance among smallholders in Ethiopia. Food Policy, 59, 165–173.
- Dawson, N., Martin, A., and Sikor, T. (2016). Green revolution in Sub-Saharan Africa: implications of imposed innovation for the wellbeing of rural smallholders. *World Development*, 78, 204-218.
- Effiom, R. A. (2014). Impact of Co-operative societies in national development and the Nigerian economy. *Global journal of social sciences*, 13(1), 19-29.
- FAO (2012). Agricultural Cooperatives: Key to Feeding the World. Food and Agriculture Organisation of the United Nations (FAO), Rome, Italy.
- Francesconi, G. N., and Wouterse, F. (2015). Promoting the role of farmer-based organisations for value chain integration: The tension between a program's targeting and an organisation's investment strategy. *Agricultural Economics*, 46(4), 527-536.
- Hu, Z., Zhang, Q. F., and Donaldson, J. A. (2017). Why Farmers' Co-operatives Failed in China? Re-evaluating the Viability of Peasant Co-operatives in Agrarian Transition. The 5th International Conference of the BRICS Initiative for Critical Agrarian Studies. 13-16 October 2017, Moscow, Russia.
- Huang, J., and Ding, J. (2016). Institutional innovation and policy support to facilitate small-scale farming transformation in China. *Agricultural Economics*, 47(S1), 227-237.
- ILO and ICA (2015). Contribution of Co-operatives to Sustainable Development. International Labour Organisation and International Co-operative Alliance.

- Kangile, R. J., Mgeni, C. P., Mpenda, Z. T., and Sieber, S. (2020). The determinants of farmers' choice of markets for staple food commodities in Dodoma and Morogoro, Tanzania. *Agriculture*, 10(5), 142.
- Kimaro, D. N., and Hieronimo, P. (2014). Land for Agriculture in Tanzania: Challenges and Opportunities. *Journal of Land and Society*, 1(1), 91-102.
- Leyaro, V., and Morrissey, O. (2013). Expanding agricultural production in Tanzania: Scoping study for IGC Tanzania on the National Panel Surveys. *International Growth Centre. London, UK: London School of Economics*.
- Likwata, M. Y. and Venkatakrishnan, V. (2014). Performance of agricultural marketing co-operativesocieties in cashewnuts production and marketing in Masasi district, Mtwara Region, Tanzania. International Journal of Research in Management and Technology (IJRMT), 4(5), 282-293.
- Ma, W., and Abdulai, A. (2017). The economic impacts of agricultural Co-operatives on smallholder farmers in rural China. *Agribusiness*, 33(4), 537-551.
- Mabunda, Q. (2017). The challenges of lack of sustainability of cooperatives: a perspective of selected art and craft Co-operatives of Muyexe Village in Greater Giyani Municipality of Limpopo Province in South Africa (Doctoral dissertation).
- Mhando, D. G. (2014). Conflict as Motivation for Change: The Case of Coffee Farmers' Co-operatives In Moshi, Tanzania. African Study Monographs, Suppl. 50: 137–154
- Nikolić, M. M., and Ševarlić, M. M. (2013). Co-operatives in International Trade of Agricultural and Food Products (No. 710-2016-48485).
- Nkoki-Mandleni, B and Anim, F.D.K. (2014) Determining Factors of Support for Co-operatives in South Africa. *Journal of Human Ecology*. 47(2), pp. 171-174.
- OECD-FAO (2016). "Agriculture in Sub-Saharan Africa: Prospects and challenges for the next decade", in OECD-FAO Agricultural Outlook 2016-2025, OECD Publishing, Paris.
- Onyilo, F., and Adong, A. (2019). Agricultural Co-operative marketing and credit policy reform in Uganda: An opportunity for poverty reduction. African Journal of Food, Agriculture, Nutrition and Development, 19(1), 14156-14170.
- PO-RALG (2020). History of regions [https://www.tamisemi.go.tz/] Site visited on 15/09/2020
- Thangata, P. (2020). Smallholder Cashew Business Model in Tanzania: Lessons from the Tandahimba Newala Co-operative Union (TANECU) Ltd. Pan-African Farmers Organisation (PAFO).
- Rebelo, J., and Caldas, J. (2015). The economic role of the Portuguese agricultural cooperatives. Revista de Economia e Sociologia Rural, 53, 91-102.
- Reolants, B., and Salvatori, G. (2019). The 2019 World Co-operative Monitor: Exploring the Co-operative Economy. International Co-operative Alliance
- Ruhul, A. M., and Mahin, U. M. (2014). Socio-Economic Impacts of Co-operative Societies: An Empirical Study. SOCRATES: An International, Multi-lingual, Multi-disciplinary, refereed (peer-reviewed), Indexed Scholarly journal, 2(2), 179-193.
- Shimeles, A., Verdier-Chouchane, A., and Boly, A. (Eds.). (2018). Building a Resilient and Sustainable Agriculture in Sub-Saharan Africa. Palgrave Macmillan.
- Tefera, D. A., Bijman, J., and Slingerland, M. A. (2017). Agricultural co-operatives in Ethiopia: evolution, functions and impact. *Journal of International Development*, 29(4), 431-453.
- URT (2019). Mtwara Investment Guide. President's Office Regional Administration and Local Government.
- World Bank (2020). Agriculture and food Overview [https://www.worldbank.org/en/topic/agriculture/overview] Site visited on 21/05/2020
- Wu, X., and Ding, Y. (2018). The Service Supply Effect of Co-operatives under Economic Transformation: A Demand-Supply Perspective. Sustainability, 10(9), 3075.
- Zheng, S., Wang, Z., and Awokuse, T. O. (2012). Determinants of producers' participation in agricultural cooperatives: evidence from Northern China. *Applied Economic Perspectives and Policy*, 34(1), 167-186.