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Research Article

Factors Affecting the Sustainability of Agricultural Cooperatives in Namibia: A Case Study of Onghalulu Farmers' Cooperative, Ohangwena Region, Namibia

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Abstract

This study aimed to investigate factors affecting the sustainability of agricultural cooperatives in Namibia, with the Onghalulu Farmers' Cooperative being a case study. The study discussed several factors that mainly affect the sustainability of the Namibian agricultural cooperative subsector, including the Onghalulu Farmers' Cooperative. It further deliberated on the benefits of participating in business cooperative initiatives. Aamong the issues affecting the sustainability of agricultural cooperatives in Namibia are those related to the market, finances, governance, leadership, stakeholder engagement, climate change, compliance, mentorship, and training programs; infrastructure development; adoption of advanced technology; investments in research and development; and other issues. These issues persisted in certain Namibian agricultural cooperatives mainly because of cooperative stakeholders' unwillingness to embrace change and their lack of dedication to finding solutions. Moreover, certain traditional beliefs obstruct Namibian agricultural cooperatives from becoming commercial enterprises, particularly those in rural regions. As a result, women, youth, and members of marginalized communities are disproportionately underrepresented in the sector. The study used a case study research design and a qualitative research methodology that enabled the researcher to collect primary data from 15 participants using open-ended questionnaires and semistructured interviews. As a result, a purposive sampling method was used to select participants with rich and systematic insights about the study constructs. The study's theoretical framework was guided by collective action and signaling theory, highlighting cooperative principles, environmental sustainability governance (ESG), and economic sustainability performance (ESP). Above and beyond, the study findings revealed that Onghalulu Farmers' Cooperative practices mixed farming, combining agribusiness with different farming activities. It further demonstrated how various external and internal factors affect Namibia's agricultural cooperative's survival capacity. In contrast, effectively managed agricultural cooperatives raise the standard of living for their members and considerably contribute to the cooperative's sustainable growth. The study provided some practical recommendations to minimize various impediments and improve the sustainability of Namibian agricultural cooperatives. Therefore, its findings are supplementary to the existing body of knowledge regarding agricultural cooperatives and offer cooperative stakeholders vital information about how to enhance the sustainability and resilience of agricultural cooperatives in Namibia.

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1. INTRODUCTION

Over many years, developed and developing nations recognized cooperatives' vital role in combating poverty and creating jobs (Malapela, 2021). They are globally known as independent, voluntary groups of people managing democratically directed enterprises to meet their daily financial, social, and cultural needs (Msuya, 2022). Several factors, including low member participation in decision-making, large age groups, cooperative sizes, dissatisfaction with member training, and many others, affect cooperative farmers' ability to negotiate better prices for seeds, fertilisers, transportation, and storage costs. Namibia has addressed the country's main socioeconomic issues of unemployment and poverty by encouraging the creation and development of agricultural cooperatives (Namibia Cooperative Policy, 2017). This made it possible for society to collaborate and enhance living conditions in situations where the government or private sector is weak, especially in rural areas. Thus, using cooperatives in the agricultural sector is noted to be a means of reducing rural poverty and raising the production and income for individuals engaging in cooperative activities (Namibia Cooperative Policy, 2017). Remarkably, the government partnered with private entities to provide technical and financial assistance to rural communities seeking to form agricultural cooperatives (Namibia Cooperative Policy, 2017). Aiming to promote Namibian agriculture's sustainable commercialization, the Government Green Scheme Policy 2008 has been implemented (Thomas & Vink, 2020). This study aimed to investigate various factors affecting the sustainability of agricultural cooperatives in Namibia, with Onghalulu Farmers Cooperatives being a case study.

Background

Humankind persists because cooperation is necessary for human well-being (Etefa, 2022). In early societies, there were divisions of labour among family members based on humans' evolutionary history, proving that, cooperation is a vital element of human existence (Etefa, 2022). Numerous groups, including Native American and African tribes, ancient Greeks, Egyptians, Romans, Chinese, Europeans, Persians, Sumerians, Romans, and Babylonians, have demonstrated collaboration (Khatun & Islam, 2023). Because of property distribution and peasant freedom, cooperatives have been established to safeguard the interests of society's weaker members since their inception in the late 18th century. The International Cooperative Alliance was established in 1889, strengthening the cooperative movement (Bercu et al., 2020). The first legal recognition of agricultural cooperatives initially surfaced in Britain in 1852, which paved the way for the creation of the first agricultural cooperative legal form (Ajates, 2020). They are a major component of the anticipated changes in the organization of the food supply chain from producer to consumer in the modern era, representing 40-60% of agricultural trade. Hence being acknowledged as crucial in uttering rural reality on the global scale (Ajates, 2020). Agricultural cooperatives are fundamentally defective due to the absence of an adequate strategic plan for the overall administration and growth, particularly in the agriculture sector (Bercu et al., 2020).

Their output has destroyed global investments, especially agricultural infrastructure, either directly or indirectly (Bercu et al., 2020). Cooperatives which are considered as phases of African economic liberalisation, arose in Africa throughout the immediate post-colonial era in the 1960s and mid-1990s (Wanyama, 2009). Africa is home to an estimated 52% of the world's remaining arable land (Jayne et al., 2014). However, there is fierce competition on the continent for arable land and water from four main groups: national governments; foreign businesses attracted to Africa's cheap and plentiful supply of agricultural land; relatively wealthy urban residents making quick land investments; and rural communities still experiencing population growth (Jayne et al., 2014). Because these groups govern land allocation and have long been led by African state officials, they harm the formation and sustainability of agricultural cooperatives in Africa, especially for small-scale farmers (Jayne et al., 2014). Hence, Africa's semi-arid climate means that farmers face harsh obstacles and must lift output right away to feed their expanding population and maintain their livelihoods. Before Namibia gained its independence in 1990, the Registrar in Pretoria, South Africa, oversaw cooperative operations there under the antiquated Ordinance No. 15 of 1946, which led to the adoption of the National Cooperative Policy in 1992 (Benisiu & Martha, 2011). Currently, cooperative activities in Namibia are regulated by the Cooperative Act 23 of 1996 and the Namibia Cooperative Policy of 2017, that are being facilitated by the Division of Cooperative Development and Regulation in the Ministry of Agriculture, Water, and Land Reforms. As a result, there are about 219 registered cooperatives in the country, with 175 of them registered in the agricultural sector. Namibia, with the growing number of registered cooperatives, is experiencing various issues related to rising food insecurity, the primary reason for declining staple food production, and the failure of agricultural cooperatives (Jona & Nghixulifwa, 2018). The lack of incentives for cooperative farmers to engage in optional land management practices needed to accelerate the need for technological development is the cause of low agricultural output (Taapopi et al., 2018). As a result, the unmanaged degradation of the soil makes the cycle of poverty and hunger unbreakable. Due to the failure of cooperatives, Namibia, a country with a small population, with an increasing number of registered cooperatives, faces challenges with inefficient agricultural production and markets (Jona & Nghixulifwa, 2018). Onghalulu Farmers' Cooperative was established in October 2014 as part of the Local Level Participatory Planning component of the Ministry of Land Reform's Programme for Communal Land Development (PCLD) to provide services and support to its members (Nikodemus et al., 2019). With 194 registered and paid-up members, it was established following the collaboration of three villages: Onghalulu, Okambali, and Onane. Hence primarily formed to serve the interest of its members by providing inputs and services, and collectively marketing its products (Nikodemus et al., 2019). Livestock farming is the primary agricultural activity of cooperative members within the grazing area, which covers 10,487 hectares. The cooperative's activities offer business

opportunities that, if properly executed could generate a decent income for members and create employment opportunities for society's unemployed youth (Nikodemus *et al.*, 2019).

Onghalulu Farmers' Cooperative continued to deal with several issues that have been threatened by several challenges that mainly affected its sustainability, including a lack of capital base to launch new projects and initiatives, unpredictable climate change and poor rainfall, poor governance and leadership, a lack of mentorship and training programmes, poor cooperation between cooperative farmers, low youth participation in agricultural initiatives, and the conflict between rural farmers and the traditional authority. Despite numerous challenges confronting agricultural cooperatives globally, regionally, nationally, and locally, they have the potential to make a significant contribution to eradicating poverty, boosting food security, and promoting inclusive employment. As such, Onghalulu Farmers' Cooperative can be an essential resource for reducing poverty, improving food security, and fostering inclusive employment in the country. The study therefore ideally identified potential interventions to improve the sustainability factors in the agricultural sector.

Statement of the problem

Agricultural cooperatives are globally celebrated for their magnificent impact on the global economy over the last 100-150 years. Having been impactful for many years, they are faced with many challenges such as eroding member commitment, deprived social capital, member apathy, a lack of incentives to invest risk capital in cooperatives, high agency costs, and influence costs (Iliopoulos & Valentinov, 2018). The continuing aging of the global population and the depopulation agenda also affect the sustainability of agricultural cooperatives (Bercu et al., 2020). In Africa, issues of low productivity threaten agricultural cooperatives, a lack of access to sufficient land size, a lack of adequate knowledge and information transfer, a slow return on investment, a lack of improved seed, and a lack of investment in research and development (Abera et al., 2021). Since Namibia gained independence, agricultural cooperative activities have primarily lagged because of a lack of sustainable economic activities, awareness of the potential advantages of cooperatives, and entrepreneurial skills (Namibia Cooperative Policy, 2017). Moreover, cooperatives in Namibia encounter several structural difficulties such as a lack of access to agricultural technology, inefficient and ineffective input use, and a lack of a supply chain based on the market (Kapuka, 2017). Several newly formed cooperative farmers in Namibia have access to the farmland but lack title deeds, preventing them from using the allocated land as collateral for loans and working capital. The sustainability of Onghalulu Farmers' Cooperative faces several challenges, including inadequate infrastructure development in the region, a lack of motivation among members due to reduced membership benefits, financial challenges, a lack of customers due to financial constraints, limited access to water as a result of the drought situation, a lack of access to agricultural technology, limited institutional and human capacity, poor application of legal and policy frameworks, and limited access to agricultural

data by policymakers. The above challenges are common barriers to Onghalulu Farmers' Cooperative, which hinder it from benefiting from sustainable farm production and marketing and widening the income gap between rural and urban residents. It is therefore essential to address the above challenges to reduce Onghalulu Farmers' Cooperative's failures and enhance its long-term sustainability. Henceforth, this study was conducted to investigate the factors affecting the sustainability of agricultural cooperatives in Namibia, with Onghalulu Farmers' Cooperative in the Ohangwena Region being a case study.

2. AIMS AND OBJECTIVES

The study's main objective was to investigate the factors affecting the sustainability of agricultural cooperatives in Namibia.

Below are the study's sub-objectives outlined:

- To analyze the influence of cooperative stakeholders on advancing the sustainability of agricultural cooperatives in Namibia;
- ii. To explore the effectiveness of cooperatives on the sustainability of agricultural cooperatives in Namibia; and.
- iii. To describe strategies for enhancing the sustainability of agricultural cooperatives in Namibia.

3. METHODOLOGY

The interpretivism research philosophy was applied in the study. The interpretivism research philosophy highlights the meaning of interpretation and understanding in studying social phenomena by examining the sense individuals attribute to their experiences and comprehending the social context in which those experiences occur (Pham, 2018). This philosophy allowed the researcher to acknowledge the subjectivity of human experiences before offering their distinctive viewpoints on the aspects influencing the sustainability of agricultural cooperatives in Namibia. As a result, the researcher thoroughly understood the individual's thoughts, feelings, and behaviors through observation, interviews, and other data collection techniques (Alharahsheh & Pius, 2020). The philosophy mainly allowed the researcher to concentrate on subjective interpretations of social phenomena to understand better the perspectives and experiences of the cooperatives' sustainability. As a result, interpretivism recognizes the significance of the social, cultural, and historical context of the cooperative and its community, which is essential when examining agricultural cooperatives' sustainability factors for the Onghalulu Farmers' Cooperative. The philosophy is vital in evaluating complex and distinctive issues in a dynamic environment rapidly changing due to several factors found in the context of the study which might not be comparable to those examined in other contexts. Making the study unique and easier to better understand reality, as the study tracked how individual perceptions, knowledge, and understanding affect sustainability components. In contrast to the study research philosophy, it employed a case study research design. The case study research design is used to comprehensively investigate a particular case, organization, or phenomenon within its actual setting, which is

beneficial for examining complex phenomena or circumstances with little published research (Ridder, 2017). A case study research design involves a thorough and intensive analysis of a specific event, circumstance, organization, or social unit in a typically defined space and timeframe, with regard to a phenomenon around the bounded context (Schoch, 2020). This greatly enabled the researcher to thoroughly examine the elements influencing the sustainability of agricultural cooperatives at Onghalulu Farmers' Cooperative in the context of actual real-world situations. The case study research design thus allowed the researcher to analyze the factors affecting the sustainability of agricultural cooperatives and gather information from various sources, including interviews, focus groups, and document analysis (Hancock et al., 2021). Above and beyond, in terms of scope, an in-depth analysis of a contemporary phenomenon within the study's real-life context relies on various data sources for support (Schoch, 2020).

4. LITERATURE REVIEW

The literature review assessed the literature gap and defended the study's theoretical underpinnings by making general allusions to related and existing literature about it. It logically showcased the study's available literature, connected the theoretical, empirical, and conceptual framework, and presented the overall literature drawn from the secondary data source. The literature review is a logical process that identifies published and unpublished works from secondary sources on the topic of interest, evaluates works about the problem, and documents the study.

Agricultural cooperative

Dhakal et al., (2021) define an agricultural cooperative as a producer-owned and controlled organization that enhances farmers' livelihoods by resolving market inequalities. Generally, agricultural cooperatives support collective actions where individual incentives fall short of generating public goods. In contrast, an agricultural cooperative is an independent group of farmers who have come together voluntarily to address their shared social, cultural, and economic needs and aspirations through a jointly owned and democratically controlled business run under a strict code of ethics (Malapela, 2021). United farmers who practice agriculture and raise living organisms for food or raw materials are the joint owners of the agricultural cooperative (Msuya, 2022). Notably, the term typically refers to unified farmers who raise field crops, poultry, or other livestock; they may be the owners of the land they farm or work as laborers on land that belongs to others (Msuya, 2022). Agricultural cooperatives are equally meaningful on improving the income of rural residents and eventually improving their quality of life and productivity, the critical indicators for reducing poverty, promoting the standard of living in general, and improving member satisfaction with their members' well-being (Fasakin & Popoola, 2019).

Sustainability

Sustainability is conducting business without harming the environment, the community, or society (Spiliakos, 2018). A

sustainable enterprise has little to no adverse effects on the local or global environment, community, society, or economy (Mahajan & Bose, 2018). On the contrary, a business strives to balance profit, the environment, and people (Mahajan & Bose, 2018). A sustainable business can achieve sustainability by addressing the needs of the present generation without compromising the ability of future generations to meet their own needs (Bansal & DesJardine, 2014). Sustainability therefore involves balancing environmental issues with developmental goals while fostering interpersonal bonds within the community (Msuya, 2022). Substantially, organizations should prioritize planning, organizing, directing, and managing cooperative resources for cooperatives to be sustainable without harming the environment.

The potential contribution of agricultural cooperatives to community development

The guiding principles of agricultural cooperatives exemplify the capacity to join forces and agree on a majority vote, share responsibility jointly, and value the ideas and contributions of each member. Below are listed potential contributions of agricultural cooperatives to community development:

Self-help community development

The concept of self-help community development embraces assisting community members to become an asset rather than a liability, allowing them to act on their situations rather than simply reacting to them (Christenson, 2019). It creates enterprises with widespread community support which serves the interests of many people through education, and access to finance and connects to more extensive community development programs (Desai & Joshi, 2014). Self-help community development empowers people to use appropriate tactics to plan, implement, and sustain changes and promote social unity, thereby addressing the problem of high coordination costs among the poor, noted to be the only way to sustain community participation in community development (Desai & Joshi, 2014).

Asset-based community development

According to Nel (2015), a community's assets typically include human, social, physical, financial, environmental, or both assets combined to form community capital, which is developed, owned, and controlled locally. Asset-based community development harnesses people's talents, resources, and skills to create local economic opportunities and enhance community well-being (Rakotoarison *et al.*, 2019). Empowered communities prioritize environmental conservation efforts in sustainable development's ecological, economic, and socio-cultural aspects, resulting in a community's willingness to develop well-being awareness, knowledge, and skills (Ramadani *et al.*, 2021).

Self-development

According to Pfeifer and Peake (2012), self-development includes personal and social or group identity, cognitive and socioemotional processes, and an extensive network of brain regions that broadly promote self-development. It reflects an

approach for the community to reclaim control of the local economy which operates for the entire community's benefit while encouraging collective management and ownership of the enterprises (Pfeifer & Peake, 2012). The essence of self-development ability realizes the optimal allocation of resources by relying on one's strength in three areas: factor gathering, which includes attracting and condensing production factors; resource utilization, which includes pretty allocating production factors and converting them into economic value; and public service, which aims to provide services to meet social demands (Bai *et al.*, 2021).

Social and environmental responsibility

According to Asmara et al. (2023), agricultural cooperatives are social enterprises. Their primary objectives are to advance social and environmental responsibility through adopting sustainable business practices that lessen environmental impact, support charitable causes, and uphold moral standards (Asmara *et al.*, 2023). They contribute to a more socially and environmentally conscious community.

Economic growth

Agricultural cooperatives can support economic growth by encouraging entrepreneurship, innovation, and investment in local businesses and industries through developing new goods and services, higher productivity, and increased competitiveness in domestic and international markets (Halilintar, 2018).

Job creation

Agricultural cooperatives help local communities, particularly those in rural areas where employment opportunities may be scarce by creating job opportunities for them, which helps to lower poverty and raise community members' standards of living (Sulistianingsih *et al.*, 2022).

Factors affecting the sustainability of agricultural cooperatives

The outlined challenges below confront agricultural cooperatives' potential to grow which badly affects the livelihoods of farmers and rural communities:

Insufficient funds for research and development

The unending challenges with food security and the lowest growth of agricultural cooperatives cannot be solved by simply limiting extension and research development in the agricultural sector but rather by providing adequate funding for research and development (Raidimi & Kabiti, 2017). Inadequate funding for research and development increases the difficulty of resolving the sector's food security issues (Hajirostamlo *et al.*, 2015). Research and development enable cooperatives to create novel goods and services to help them thrive in cutthroat markets, thereby increasing agricultural output and total production (Hajirostamlo *et al.*, 2015). The efficiency of R&D activates fresh insights into inputs and production techniques that increase the potential for agricultural products and diminish the strain on the environment.

Climate change and environmental degradation

Environmental deterioration and climate change are two issues that agricultural systems must contend with, which can potentially lower agricultural output (Foguesatto *et al.*, 2019). Due to decreased productivity, the depletion of natural resources, and increased production costs, climate change and environmental degradation can present severe problems for agricultural cooperatives (Foguesatto *et al.*, 2019).

Low participation of members and lack of awareness

The low participation of members and lack of awareness raise severe concerns as some cooperative members do not participate in regular cooperative meetings, including voting of their leaders (Etefa, 2022). Members do not attend regular meetings for various reasons, including poverty and illiteracy, and because most of them are from rural areas, they cannot read or write, hence hesitant to attend meetings (Etefa, 2022). Members lack awareness and training on cooperative-related issues, thus making it challenging to participate actively in decision-making, planning, and implementing cooperative business activities (Debeb & Yenesew, 2019). Also, most members lack sufficient understanding of the movement's goals, contributions to societal reconstruction, and cooperative institution rules and regulations (Etefa, 2022). Additionally, members become unaware of their obligations and consequently fail to act accordingly, making it difficult to implement the cooperative principle of democratic member control (Debeb & Yenesew, 2019).

Inadequate governance

Most organisations had governance difficulties which caused operational problems and significantly triggered the bankruptcy of most businesses (Basterretxea *et al.*, 2022). Any cooperative success depends on good governance that combines democratic control with economically sound governance (Basterretxea *et al.*, 2022). However, cooperatives often appoint individuals to their Internal Audit Committees who cannot fulfill their obligations, which weakens their governance (Etefa, 2022). They additionally appoint well-known individuals to serve on their boards, causing them to fall short in carrying out their responsibilities following best governance practices, instigating them to mismanage the cooperatives' resources and instantly fail in their infancy stage (Etefa, 2022).

Absence of professionalism

Most agricultural cooperatives struggle to maintain professionalism in their business operations through record-keeping, communication, product quality, customer service, competitive pricing, and all business dealings (Poudel, 2018). Mostly, cooperative management committee members often lack a thorough understanding of their cooperative's business dealings and often find it challenging to appoint competent management staff to uphold a higher standard of professionalism (Etefa, 2022). As a result, they struggle to hire qualified professionals and invest in their staff members' training to become more professional, ultimately leading to the agricultural cooperatives' failures (Etefa, 2022).

Inability to access to arable land

The main issue facing African agricultural cooperative development is the limited availability of arable land for crop production and livestock farming development, directly affecting livelihood outcomes (Ndlovu & Masuku, 2021). Due to the skyrocketing land prices, small farmers in Africa are forced to form cooperatives to access a limited number of extensive arable lands (Ndlovu & Masuku, 2021). However, they only had access to land in the rural areas that are communally owned and run by the traditional authorities and only owned less than 2 hectares of that land (Ndlovu & Masuku, 2021). Similarly, due to a lack of resources to acquire land ownership, most agricultural cooperatives with access to arable land in urban areas do not have land ownership rights to use as collateral security to access agricultural loans and grants; as a result, they are leasing it from the municipality (Ndlovu & Masuku, 2021). Lack of access to sizeable arable land sizes and insecure land tenure will lead to unsustainable farming practices and severe resource competition, thereby contributing to chronically low income and persistent food insecurity, making it difficult for them to meet market demand (Malapela, 2021).

Inadequate agricultural inputs and mechanisation technologies

Most agricultural cooperatives face numerous challenges in their daily operations due to inadequate agricultural inputs such as better seeds, fertilisers, crop protection chemicals, and machinery (Malapela, 2021). They additionally lack access to the modern agricultural mechanisation technologies that are essential for them to be profitable and productive.

Inability to access financial support

Most agricultural cooperatives are not as progressive as they should be because they have limited access to agricultural inputs and technologies, mainly because they lack financial resources (Mersha & Ayenew, 2018). Due to limited access to funding, including grants and loans, securing capital to purchase agricultural inputs, investing in agricultural machinery and technologies, and paying for transport to sell agricultural outputs are significant challenges agricultural cooperatives encounter every harvest season (Mersha & Ayenew, 2018). This is because agricultural cooperatives lack the collateral security financial institutions typically require to access loans (Malapela, 2021). Similarly, agricultural cooperative members cannot afford to fund their organisations through regular contributions, making their operations unsustainable.

Limited access to market and market information

Market participation is the first step towards gaining market access (Lantz, 2019). Considering the agricultural cooperatives' income channel, limited market access opportunities are preconditions for agricultural cooperatives to generate low revenue and slow business growth (Lantz, 2019). Typically, supermarkets buy products from big farms that satisfy their supply-demand needs, hence leaving agricultural cooperatives without customers because their quality and quantity do not meet

their standards (Lantz, 2019). Due to financial constraints, cooperatives cannot afford to own a processor market to guarantee refrigeration and a steady stream of customers for their produce, which impacts the quality of the produce (Malapela, 2021). Agricultural cooperatives, on the other hand, cannot export their products to other countries due to a lack of market access. In addition, cooperatives cannot produce high-value-to-weight products due to marketing difficulties and a niche customer base.

Inadequate support and weak regulation and supervision

The lack of distinct specialised units at the international, national, and regional levels that promote, supervise, and regulate various cooperatives' activities remains the core challenge to cooperatives' success (Tesfamariam, 2015). Notably, the issues with constrained staff mobility are brought on by the failing agricultural cooperatives' high associated costs and lack of dependable transportation (Etefa, 2022). Prior to that, there is poor coordination to address agricultural cooperatives' issues due to insufficient structures to address the growing challenges (Etefa, 2022). As such, policymakers and analysts must consider how their decisions relate to the more extensive national system (Tesfamariam, 2015).

Poor infrastructure

Farmers in developing countries deal with various problems, such as limited access to efficient modes of transportation, inadequate road systems, energy, equipment for processing agricultural products, banks, and other necessities (Etefa, 2022). Most agricultural cooperatives are found in rural areas with underdeveloped infrastructure, thereby negatively impacting agricultural productivity (Ebewore, 2021). The poor road network connectivity in rural areas prevents farmers from reaching the potential market to sell their goods, and insufficient access to storage facilities to maintain their agricultural products may result in a loss of income. In addition, the unequal distribution of resources for infrastructure development in rural areas is the leading cause of poor infrastructure development (Ebewore, 2021).

The influence of cooperative stakeholders on the sustainability of agricultural cooperatives

While many studies on stakeholder engagement have concentrated on high-power stakeholders, little attention has been given to the engagement of low-power stakeholders, who are vulnerable because of their limited ability to influence agricultural cooperatives (Civera *et al.*, 2019). By improving the conventional cooperative view of the corporate-stakeholder rapport, agricultural cooperatives are intended to empower strategies that can result in more effective stakeholders becoming active business partners (Civera *et al.*, 2019). The idea that stakeholder empowerment and engagement are intertwined with creating value is frequently reinforced by a theory-based view based on the logic of cooperative partnerships. Stakeholders are crucial in deepening the transformational orientation towards more sustainable business models, where innovations play an

important strategic role (Fiore et al., 2020). Depending on their authority or legitimacy in a particular political context, they typically impact the cooperatives' decisions to adopt sustainable behaviour, even though defining a legitimate stake can be challenging (Fiore et al., 2020). On the other hand, different stakeholder classifications have been divided into primary and secondary or internal and external stakeholders depending on how much influence they have over the governance of cooperatives. Stakeholders are typically involved in cooperative activities and they have the power to influence corporate decisions to meet various expectations (Fiore et al., 2020). Therefore, the value created within the business model addresses these expectations, giving the cooperative an advantage over its competitors.

Agricultural cooperatives should primarily shape relations with various stakeholders to avoid market failure and ensure sustainable development. As a result, since sustainable development can only be achieved by balancing the interests of multiple parties, agricultural cooperatives must work to meet their stakeholders' needs. Overall, stakeholders significantly impact agricultural cooperatives' sustainability, and this influence is based on the kind and calibre of support they offer. Agricultural cooperatives can instantly increase their chances of long-term sustainability by engaging with stakeholders and developing strong relationships to improve their financial support, market access, technical expertise, advocacy and outreach, governance, and leadership.

The effectiveness of sustainable agricultural cooperatives

According to Ribaauskien et al. (2019), developing a sustainable agricultural sector will promote cooperative activities to aid the societal and economic advancement of rural communities, farms, and farmers. As a type of social economy model, cooperatives can be seen as the outcome of social innovation aimed at addressing social needs and achieving systemic change confined to member-owned, member-controlled, and member-operated dealings that seek to meet their shared economic, social, and cultural needs as well as to create a better community and ecosphere through cooperation (Moon & Lee, 2020). Cooperatives are value and principle-based organisations that prioritise the interests and well-being of their members and the community's prosperity (Moon & Lee, 2020).

Agricultural cooperatives are resilient in crises because they develop appropriate survival mechanisms and play a crucial economic role in providing independent and small agricultural firms globally with market access and competitive returns (Kontogeorgos *et al.*, 2018). Additionally, they are created under the rural community development agenda as a free and legal economic business model made up of local, regional, and international community members and led by aid organisations to use cooperatives as a tool for eradicating poverty and fostering economic development (Moon & Lee, 2020). Being social and economic development entities, cooperatives are predominantly designed to help members build their skills, make a profit, provide the services they need, and reinvest their profits into their businesses.

Governments around the world have promoted cooperatives as a way to address a variety of socio-economic and environmental issues, including reducing poverty in rural and underdeveloped areas, changing market structures, supplying lagging rural areas with essential goods, addressing energy and environmental security issues, addressing the infancy of the financial markets, addressing social inequality, testing new business organisation structures and their effects on the existing market structure, and restructuring the economy (Ribaauskien *et al.*, 2019).

The sustainability of agricultural cooperatives is deeply ingrained in the agenda for environmentally sustainable agricultural development as a crucial component of the United Nations Sustainable Development Goals (Liang et al., 2023). On this distinct identity the quality of the partnership and the benefits that the agricultural cooperatives can obtain determine the effectiveness of the collaboration between members to endorse the sustainability of farmers' cooperatives (Alotaibi & Kassem, 2022). Cooperatives are a successful business model that helps farmers reach broader markets and more varied customers, which can boost demand and stabilise prices for their products and allow them to increase their profitability, which is crucial for their sustainability (Alotaibi & Kassem, 2022). In contrast, cooperatives also help farmers increase their financial and investment capital, allowing them to grow their operations and upgrade their infrastructure (Alotaibi & Kassem, 2022).

Prominently, cooperatives are now the lifeblood of their members worldwide, who largely depend on the activities that increase agricultural productivity in production, distribution, marketing, and financial assistance for capital or equipment (Darma et al., 2020). As a result, agricultural cooperatives continue to play a significant economic role in providing independent producers and small agricultural businesses worldwide with competitive returns and market access (Kontogeorgos et al., 2018). However, the food industry's weak agricultural cooperatives face enormous difficulties due to the economic crisis instigated by their low liquidity, which results in fewer investment opportunities, lower profitability, and a staffing shortage (Moon & Lee, 2020). They consistently attempt to resolve this situation by aiming to penetrate the international food market, which calls for the transformation of cooperatives from production-oriented to market-oriented, as well as the adoption of various business management strategies and methods (Kontogeorgos et al., 2018). Often, humans rely on one another to progress, so cooperatives are substantial as they serve as a pillar and backbone of the national economy while empowering social and psychological aspects (Majid et al., 2020). Cooperatives improve the living standards of their members, particularly those with low incomes and living in rural areas, by identifying economic opportunities for the poor, empowering the disadvantaged to protect their interests, providing security to the poor by converting individual risks into collective risks, marketing farmers' products, and delivering savings and credit facilities to farmers (Ishak et al., 2020). In addition, it improves social conditions by encouraging interpersonal relationships, increasing community participation, providing employment, and enhancing individuals' management skills and facilities.

Strategies for enhancing the sustainability of agricultural cooperatives

According to Li et al., (2021), there is growing concern about how agricultural practices are causing the environment to deteriorate. However, farmers have proven over the years that they must manage their farms appropriately due to intensifying climate change, sharp price swings for agricultural commodities, stricter quality standards, new environmental regulations, debates over genetically modified crops, extreme weather events, demand for energy crops, revisions to the standard agricultural policy, and the effects of financial crises, which all create uncertainty regarding the future of agriculture (Li et al., 2021). Farmers are thus urged to deal with unforeseen circumstances to adapt to new developments that strengthen their capacity. They are encouraged to do this by diversifying their operations to spread risks and build buffers, learning through experimentation and monitoring the results, and ensuring a flexible farm organisation to increase the options for new activities by the farm family (Li et al., 2021). By implementing the strategies above, farmers will mobilise outside resources, participate in group activities, and start reorganising resources and renewing the farm's organisation and activities (Li et al., 2021). Contrarily, putting these strategies into practice has a price, so farmers must deal with the inescapable trade-offs between efficiency and adaptability. Commonly, through smart cooperatives, smart members, the smart economy, smart governance, providing market access, financing, technical assistance, support for sustainability practices, and collaborating on research and development, agricultural cooperatives can significantly contribute to addressing issues relating to the sustainability of farming cooperatives (Alotaibi & Kassem, 2022). Nevertheless, a multifaceted strategy that promotes market linkages, improved access to finance and technical assistance, more robust governance and management structures, and sustainable practices that diminish the effects of environmental degradation and climate change on agricultural cooperatives is required (Alotaibi & Kassem, 2022).

Sample size and methods

The study used a purposive sampling technique that enabled the researcher to choose cases most pertinent to the research questions and provide the most decadent and detailed information about the phenomenon being studied (Campbell et al., 2020). Given that, the study's sample size was 15 participants, including one (1) Cooperative Chairperson, two (2) Cooperative Advisory Boards, three (3) Cooperative Supervisory Committees, four (4) Cooperative members, one (1) Registrar for Cooperatives in Namibia and four (4) Cooperative Business Analysts. The study's sample size was determined by Dworkin (2012), who denoted that in qualitative studies, a sample of 15 – 30 is considered adequate to reach saturation and redundancy in narrative theory studies that use in-depth interviews. Therefore, the sample size of 15 participants was sufficient to meet the study's goals and enhance the data and findings' validity, reliability, dependability, confirmability, and trustworthiness.

Henceforth, the participants provided the data required to achieve the study's objectives.

Data collection procedures

Semi-structured interviews used in the study involved having one-on-one or group discussions with participants to collect specific data and in-depth responses about factors affecting the sustainability of agricultural cooperatives of Onghalulu Farmers' Cooperative. According to Malapela (2021), a semi-structured interview significantly increases the flexibility between the interviewer and interviewee to discuss pertinent topics by allowing the interviewer to probe and expand the interviewees' responses. Open-ended questionnaires were physically distributed to participants via mail or online to gather crucial data. Open-ended questionnaires helped participants express their attitudes and opinions in their own words without the researcher's interference. Moreover, they elicited underlying thoughts, feelings, sentiments, and suggestions that the researcher may not have considered. On the other hand, document analysis was used to examine existing documents with historical aspects of the research topic. Therefore, to answer the research questions and fulfil the study's objectives, semistructured interviews and open-ended questionnaires were used to collect primary data. Document analysis helped to gather secondary data from the published literature.

Data analysis

The study employed narrative analysis. Narrative analysis in qualitative research interprets intricately detailed life stories from interviews or written documents, examines people's voices through their narrative data, and focuses on how people interpret their life experiences (Josselson & Hammack, 2021). Narrative analysis further helps to reduce data to an understandable and interpretable form so that the relationships of research problems can be studied, tested, and drawn. As a result, data were transcribed, translated, interpreted, and coded before being classified according to themes and codes. The Computer Assisted Qualitative Data Analysis Software (CAQDAS) was primarily used for this study's data analysis to facilitate transcription analysis, explanation writing, coding, discourse analysis, data mapping, and grounded theory methodology (Reis et al., 2016). NVivo version 12 was used for the study's organization, analysis, visualization, and data coding, and further analyzed journal articles, unstructured text, and audio from interviews.

5. DISCUSSION OF RESULTS

An analysis, presentation, and interpretation of the study's findings, contrasting its objectives and methodology are deliberated. The empirical research methods and procedures used to gather information about the factors affecting the sustainability of agricultural cooperatives in Namibia, specifically Onghalulu Farmers' Cooperative, were utilized for the interpretation, presentation, and data findings. Using a unique methodology, the researcher promptly reached appropriate

conclusions and offered recommendations regarding the study's constructs.

Response rate

The study's sample size was 15 with data gathered from the fifteen (15) participants about an empirical investigation of the factors affecting the sustainability of agricultural cooperatives in Namibia, with Onghalulu Farmers' Cooperative being a case study. Participants' responses were satisfactory, achieving a 100% response rate. As a result, the data gathered enlightened the researcher about the study constructs through which participant responses are analyzed.

Participants' gender

As outlined in Table 10.1 below, the study found an imbalance of gender representation between male and female participants. Only five (5) of the 15 participants in the study represented 33.33% of the female participants, and ten (10) of the 15 participants represented 66.67% of the male participants. The male gender overrepresented the female gender because they undertook the most crucial tasks performed at Onghalulu Farmers' Cooperative, including caring for the livestock, clearing brushes, making charcoal, and other labor-intensive tasks. Nonetheless, the female gender is underrepresented in cooperative activities because they work primarily in occasional agricultural duties, including agronomy, horticulture, and poultry farming.

Participants' age range

The study discovered that no participants between 18 and 25 years old were represented. Out of fifteen (15) participants, two (2), or 13.33% of participants were between 25 and 35 years old; three (3) or 20% of participants were between 35 and 45 years old; three (3) or 20% of participants were between 45 and 55 years old; six (6) or 40% of participants were between 55 and 65 years old; and only one (1) or 6.67% of participants were 65 years old or more. The study concluded that the youth group was underrepresented at Onghalulu Farmers' Cooperative (see Table 10.1 below).

Participants rank or positions in a cooperative

As outlined in Table 10.1 below, the study found that only one (1), or 6.67% of participants was in the position of a Cooperative Chairperson; two (2) or 13.33% were Cooperative Advisory Boards; three (3), or 20% were in the position of Cooperative Supervisory Committee; four (4) or 40% were Cooperative Members; one (1) or 6.66% was a Registrar for Cooperatives; and four (4) or 26.67% were Cooperative Business Analysts.

Participant's cooperatives experiences

As simplified in Table 10.1 below, no participants with six (6) months or less of cooperative experience were represented. Insightfully, one (1), or 6.67% of participants have experience in cooperatives for six (6) to twelve (12) months; four (4), or 26.67% of participants, have experience in cooperatives for one (1) to four (4) years; three (3), or 20% of participants, have

experience in cooperatives for four (4) to eight (8) years; and seven (7), or 46.66% of participants have experience in cooperative activities for eight (8) years or more

Participant's level of education

The study findings shortened that none of the participants were without formal education among the 15 participants. Also, there were no participants with adults and primary education being represented. However, out of the 15 participants, three (3), or 20% of participants, have Secondary Education, eleven (11) or 73.33% of participants have Tertiary Education, and only one (1), or 6.67% of participants with Vocational Education (see Table 10.1 below).

Table 10.1: Demographic characteristics of participants

Variable	Category	Frequency	Percentage (%)
Participant's Gender			
	Male	10	66.67
	Female	5	33.33
Participant's Age Range			
	18-25 Years	0	0
	25-35 Years	2	13.33
	35-45 Years	3	20
	45-55 Years	3	20
	55-65 Years	6	40
	Above 65 Years	1	6.67
Participan	t's Ranks or Position	s	
	Cooperative		6.67
	Chairperson	1	6.67
	Cooperative	2	13.33
	Advisory Board	2	13.33
	Cooperative		
	Supervisory	3	20
	Committee		
	Cooperative	4	26.67
	Members	7	20.07
	Cooperative	1	6.67
	Registrar		
	Cooperative	4	26.67
	Business Analyst	•	20.07
Participan	t's Experience Level	, ,	
	6 Months	0	0
	6-12 Months	1	6.67
	1-4 Years	4	26.67
	4-8 Years	3	20
	Above 8 Years	7	46.66
Participan	t's Education Level		
	None	0	0
	Adult Education	0	0
	Primary	0	0
	Education	J	U
	Secondary	3	20
	Education	,	20
	Tertiary	11	73.33
	Education		
	Vocational	1	6.67
	Education	-	~~~

The main agricultural activities are undertaken at Onghalulu Farmers' Cooperative

In determining the main agricultural activities carried out by Onghalulu Farmers Cooperatives, the study discovered that raising cattle, sheep, goats, and pigs accounts for two-thirds of agricultural activities. The cooperative further engages in poultry farming, raising chickens for meat and eggs, and broilers. In addition, it participates in horticulture and agronomy activities, cultivating various crops such as melons, watermelons, beans, groundnuts, tomatoes, potatoes, carrots, onions, and cabbage. Cereal crops like sunflowers, wheat, maize, and millet (mahangu) are also produced. The cooperative contributes to the production of charcoal, thereby preventing the spread of bushes and reclaiming rangeland, and bush harvesting is closely controlled to maintain the charcoal value chain. Along with livestock, horticulture, agronomy, and charcoal products, Onghalulu Farmers' Cooperative markets all its members' agricultural activities.

Challenges facing agricultural cooperatives in developing nations like Namibia

The research findings indicated that agricultural cooperatives in developing nations such as Namibia, encounter several obstacles that eventually affect their sustainable growth. These challenges include insufficient funding for new and existing cooperatives, irregular weather patterns and insufficient rainfall, declining soil fertility, social unrest, and poor mentorship. Their underdevelopment and bankruptcy are primarily caused by a lack of innovation and vision, exacerbated by the low youth participation rate in the agricultural sector and the poor cooperative governance and leadership. A constant source of underdevelopment and unproductive results means that cooperatives are immediately challenged by the unsustainable interventions of political and traditional authorities in their management decisions and responsibilities. These interventions eventually impede the cooperatives' ability to operate because of the ongoing conflicts between the contending authorities. They afterward suffer from dependency syndromes that make it impossible for them to function without the support of donors and the government. Additionally, they are often impacted by elevated levels of corruption and poor management, thereby obstructing their ability to survive and expand. Due to their frequent establishment in rural areas, they often lack collateral security, which limits their ability to obtain bank loans and other financial assistance from financial institutions.

Factors affecting the sustainability of Onghalulu Farmers' Cooperative

The research results indicated that Onghalulu Farmers' Cooperative encountered economic hardships, financial difficulties, restricted capital assets, scarce water resources, and restricted information availability. Cooperative members are demoralized, which makes it difficult for them to contribute significantly to the vital projects and programs of the cooperative. As the Office of the Registrar for Cooperatives in Namibia (DCDR) functions are centralized and only available in Windhoek, Onghalulu Farmers' Cooperative has limited access to DCDR, and this makes it difficult for them to obtain crucial information and direction to run the cooperative. Onghalulu also has difficulties accessing the auction kraals where to market and sell their livestock because of its inaccessible location. Because

the cooperative's properties, livestock, and horticultural products are uninsured, it is more likely that valuables will be lost to theft or natural disasters. Subsequently, member conflict, which has a detrimental effect on the cooperative's ability to grow, makes decision-making and resource allocation difficult as some members are less dedicated to their responsibilities. Furthermore, the internal infighting within the cooperative members has led to low stakeholder engagement, further exacerbating the already toxic environment. This hinders members' ability to manage an efficient cooperative due to a lack of funds for human resource development that is required to capacitate members with the needed competencies.

The influence of cooperative stakeholders on the sustainability of agricultural cooperatives in Namibia

The study findings indicated that cooperative stakeholders are crucial in forming Namibia's cooperative sector and tackling socioeconomic problems collectively. Stakeholders facilitate sustainable practices, economic opportunities, production maintenance, training and capacity building, marketing assistance, financial support, and all necessary support for agricultural cooperatives. The government, political institutions, financial institutions, regulatory agencies, international organisations, and local communities are essential cooperative stakeholders in the Namibian agricultural sector. As a crucial stakeholder, the government guides cooperatives towards longterm development objectives through National Development Plans, the Harambee Prosperity Plan, and Vision 2030 strategies. In addition, the Ministry of Agriculture, Water, and Land Reform oversees information sharing, maintains supply consistency, manages resources, and encourages the local market to maximise profits.

The obstacles hindering the efficiency of Onghalulu Farmers' Cooperative stakeholders' engagement

It was revealed that the obstacles hindering the efficiency of Onghalulu Farmers Cooperative's stakeholder engagement include poor communication, low commitment to cooperative duties, conflicts of interest, and greediness among some stakeholders. Miscommunication, a lack of resources, and trust issues hamper stakeholders from significantly impacting the collective development of the cooperative's objectives. The Agricultural Bank of Namibia, as an imperative stakeholder, cannot support Onghalulu Farmers' Cooperative financially since the other cooperatives defaulted on their loan repayment obligations. Additionally, all 219 registered cooperatives in Namibia have limited access to the centralised DCDR Office, Namibia's primary cooperative developer, and coordinator, making it difficult for them to interact with one another during their Annual General Meetings.

Interventions to be implemented to improve stakeholder engagement at Ongalulu Farmers' Cooperative

Several interventions, such as improvement of frequent communication, setting clear communication channels, resolution of conflicts between stakeholders, improvement of the decision-making process, and educating stakeholders about the values and benefits of the cooperatives, should be implemented to advance stakeholder engagement at Onghalulu Farmers' Cooperative. Furthermore, encouraging an inclusive engagement between stakeholders and decentralising the DCDR Office will sharpen the roadmap to promote the cooperative's sustainable growth and foster overall governance and management.

Strategies to increase the effectiveness of agricultural cooperatives in Namibia

The study reflected the following strategies to be effective in improving the sustainability of agricultural cooperatives in Namibia: adopting sustainable practices, prioritising climate resilience, diversifying revenue streams, putting ethical practices into action, continuously monitoring and evaluating projects, and concentrating on water scarcity. Market entry incentives, support structures, and joint venture promotion can significantly improve the cooperative's sustainability practices. Also, government interventions aimed at reducing the cost of agricultural inputs, including introducing subsidies, enhanced information sharing, and resolving conflicts between the public and wildlife, are all immediate requirements for interference. Upholding compliance, developing effective leaders, and strengthening the organisational and commercial capacities of the industry are all contingent on fostering good cooperative governance.

Relevant managerial skills needed to enhance the sustainability of Onghalulu Farmers' Cooperative

The study findings simplified technical, executive, and integrated entrepreneurial skills to be reflective aptitudes that are required by Onghalulu Farmers' Cooperative management to enhance sustainability. They must advance their understanding of operational, financial, and strategic performance to guarantee Onghalulu's progress and sustainable growth. Notably, strong leadership qualities, industry knowledge, financial and business acumen, strong behavioral traits, and the capacity for strategic planning are all necessary for a cooperative to succeed. It is thus imperative that cooperative managers and executives set an excellent example for the team, value innovation, and build a team capable of driving change. Joint and business management proficiencies, which include financial management, teamwork, communication, problem-solving, and extra demonstration of vision, tenacity, and integrity, are also necessary for successful cooperative management. Therefore, to increase cooperative's sustainability, the leadership of Onghalulu Farmers' Cooperative should be proficient in marketing, risk management, negotiation, communication, and change adaptation.

Areas of future research

As agricultural cooperatives are keystone to the community's socioeconomic development, further research on the analysis of the impact of research and development investments on the sustainability of agricultural cooperatives should be conducted. The studies evaluating the influence of members' educational achievement on the efficiency of agricultural cooperatives

should be narrated. An assessment of the influence of cooperative members' competencies on the effectiveness of farming cooperatives in Namibia should be done. The effectiveness of compliance management and cooperative governance on the operational efficiency of agricultural cooperatives in Namibia should be executed. An investigation into how political and traditional leadership interference affects agricultural cooperative performance should be assessed. Moreover, an assessment of the impact of inclusive farming on the Namibian agricultural cooperatives' ecosystem should be examined.

Relevant literature linked to the study findings

Wadesango and Mabunda (2017) emphasised that various cooperative failures have been exploited for political or ideological ends, thereby creating inadequately developed or unviable cooperatives confronted with numerous problems. Being influential organisations in developed and developing nations, cooperative institutions nurture a more equitable redistribution of wealth, promote employment growth, and advance socioeconomic development, thereby addressing the gaps left by the private industry and the public sector and giving significant attention to market failure (Wadesango & Mabunda, 2017). As autonomous entities, agricultural cooperatives rely on long-lasting connections with every member of their network of stakeholders to establish and preserve their foundation (Pedrosa-Ortega et al., 2019). Their stakeholders are primarily involved in developing innovations that satisfy consumer expectations, which aligns with creating social, environmental, and financial value. Besides, Nhemachena et al. (2018) related that to accelerate the 2030 Agenda for SDGs and end global poverty and hunger, the agricultural sector must meet the requirements of Sustainable Development Goals one and two.

6. CONCLUSION

This study was employed to investigate factors affecting the sustainability of agricultural cooperatives in Namibia, using the Onghalulu Farmers' Cooperative as a case study. Key findings from the survey shed light on the factors affecting the sustainability of farming cooperatives, assessed how cooperative stakeholders influence the sustainability of agricultural cooperatives, simplified the effectiveness of cooperatives on the sustainability of farming cooperatives, and proposed appropriate strategies for enhancing agricultural cooperatives in Namibia. Conclusions emanating from the study have significant implications for improving Namibia's agricultural cooperatives' growth and sustainability. To strengthen the sustainability of the cooperative, stakeholders farming should put recommendations into practice. Furthermore, aspiring researchers interested in farming cooperatives are provided with areas to explore further to expand the literature on agricultural cooperatives. The study is crucial for policymakers, advisory board members, cooperative board members, cooperative registrars, and other stakeholders, as it provides them with access to valuable knowledge required to enhance agricultural cooperatives' sustainable community development agenda.

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