

# GLOBAL MULTIDISCIPLINARY PERSPECTIVES JOURNAL

## Fostering Inclusive Economies: The Role of Cooperatives in Empowering Women Entrepreneurs in Agriculture

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### **Article Info**

**ISSN (online):** 3107-3972

Volume: 01 Issue: 05

September-October 2024 Received: 14-09-2024 Accepted: 16-10-2024

**Page No:** 26-46

### **Abstract**

This paper explores the pivotal role of cooperatives in fostering inclusive economies by empowering women entrepreneurs in the agricultural sector. Women play a crucial role in agriculture, particularly in emerging economies, yet they face significant barriers, including limited access to land, financial services, training, and markets. Cooperatives, as collective enterprises, have emerged as effective mechanisms for addressing these challenges by promoting economic inclusion and gender equity. The study highlights how cooperatives empower women by pooling resources, providing access to affordable credit, facilitating knowledge sharing, and enabling better market linkages. Through these collaborative frameworks, women entrepreneurs can overcome systemic barriers and enhance their productivity and income. The paper examines various cooperative models, including producer cooperatives, marketing cooperatives, and financial cooperatives, emphasizing their capacity to create sustainable economic opportunities for women in agriculture. Key findings reveal that cooperatives contribute to enhancing women's decision-making power, social capital, and economic independence. Case studies from sub-Saharan Africa, South Asia, and Latin America demonstrate the transformative potential of cooperatives in reducing poverty and driving rural development. These examples underscore the importance of training programs, inclusive governance structures, and supportive policies in maximizing the impact of cooperatives. The study also addresses the challenges cooperatives face, such as limited access to funding, poor infrastructure, and cultural biases. It proposes strategies to strengthen cooperatives, including leveraging digital technologies, fostering public-private partnerships, and advocating for gender-responsive policies. By addressing these constraints, cooperatives can more effectively support women entrepreneurs, contributing to sustainable agricultural development and broader economic growth. This paper concludes that cooperatives are essential vehicles for empowering women entrepreneurs in agriculture, enhancing their livelihoods, and fostering inclusive economies. Policymakers, development organizations, and private sector stakeholders are urged to support cooperative development as a means of achieving gender equity and sustainable development goals.

DOI: https://doi.org/10.54660/GMPJ.2024.1.3.26-46

**Keywords:** Inclusive Economies, Women Entrepreneurs, Agriculture, Cooperatives, Economic Empowerment, Gender Equity, Rural Development, Sustainable Agriculture, Market Access, Financial Inclusion.

### 1. Introduction

Inclusive economies are critical for promoting equitable and sustainable development, particularly in emerging economies where disparities in access to resources and opportunities are prevalent. Women play a crucial role in agriculture, significantly contributing to food production, household income, and overall economic growth. Despite their essential contributions, women entrepreneurs in agriculture encounter numerous challenges, including limited access to land, financial resources, technology, and markets (Onukwulu, *et al.*, 2021, Oyegbade, *et al.*, 2021). These challenges are compounded by socio-cultural barriers, discriminatory policies, and systemic gender biases, which further marginalize women and inhibit their ability to thrive as entrepreneurs and fully engage in economic activities (Dwomoh, 2022; Mahama, 2023; Panda, 2018).

The role of cooperatives has emerged as a vital mechanism for empowering women entrepreneurs in agriculture. Cooperatives act as collective organizations that enable particularly those from individuals, marginalized communities to pool resources, share knowledge, and gain access to markets and financial services (Avwioroko, et al., 2024, Dudu, Alao & Alonge, 2024). For women in agriculture, cooperatives provide a pathway to overcome structural challenges by fostering collaboration, enhancing bargaining power, and promoting equitable access to resources. Research indicates that cooperatives can significantly empower women by facilitating access to productive resources and improving their entrepreneurial capacities (Dagoudo et al., 2023; Suseno & Nataliningsih, 2023). Similar to leadership development initiatives in other fields, structured collective models play a vital role in enhancing women's agency, decision-making power, and resilience (Tasleem et al., 2023). Furthermore, cooperatives not only benefit individual women but also contribute to broader economic goals, fostering inclusive economies that prioritize equity, participation, and shared prosperity (Suseno & Nataliningsih, 2023; Ajani et al., 2013).

This study aims to explore the role of cooperatives in empowering women entrepreneurs in agriculture and analyze how these organizations contribute to fostering inclusive economies. By examining the functions and impacts of agricultural cooperatives, the study seeks to illuminate their potential to address systemic barriers faced by women and promote sustainable economic development (Ajani & Oluwaseun, 2022, Gil-Ozoudeh, et al., 2022, Oyegbade, et al., 2022). Evidence suggests that cooperatives enable women to access credit, acquire training, and participate in decision-making processes, thereby enhancing their entrepreneurial capacities and resilience (Dagoudo et al., 2023; Suseno & Nataliningsih, 2023; Ajani et al., 2013). The focus on agricultural cooperatives in emerging economies is particularly relevant, as these contexts often highlight the transformative potential of cooperatives in bridging gender gaps and fostering inclusive growth (Dagoudo et al., 2023; Panda, 2018).

In conclusion, the empowerment of women through cooperatives is essential for achieving gender equality and fostering inclusive economic growth. By addressing the systemic barriers that women face in agriculture, cooperatives can play a pivotal role in enhancing women's participation in economic activities, ultimately contributing to sustainable development goals (Suseno & Nataliningsih, 2023; Ajani *et al.*, 2013). The study underscores the importance of collective action in driving sustainable development and highlights the need for policies that support the establishment and growth of cooperatives as a means of empowering women in agriculture.

### 2. Methodology

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework was adopted to analyze the role of cooperatives in empowering women entrepreneurs in agriculture and fostering inclusive economies. This methodology ensures transparency, reproducibility, and rigor in synthesizing existing literature. The systematic review process included defining the research question, identifying eligibility criteria, conducting a comprehensive search, selecting studies, extracting data, and synthesizing findings.

To ensure comprehensive coverage, databases including Scopus, Web of Science, PubMed, and JSTOR were searched. Search terms were constructed using keywords such as "cooperatives," "women entrepreneurship," "inclusive economies," "agriculture," "sustainable development," and "economic empowerment." The search incorporated Boolean operators (AND, OR) to refine results and include combinations of these keywords.

Studies were included if they met the following criteria: (1) peer-reviewed publications, (2) focus on cooperatives or women entrepreneurs in agriculture, (3) relevance to fostering inclusive economies, and (4) availability of full text in English. Exclusion criteria involved duplicate records, non-peer-reviewed sources, and studies lacking substantial focus on the topic. Data extraction was performed using a standardized template capturing study characteristics, methodologies, results, and implications. Two independent reviewers screened titles, abstracts, and full texts to mitigate bias. Conflicts during the selection process were resolved through discussions or by involving a third reviewer.

To ensure reliability and robustness, critical appraisal tools such as the Critical Appraisal Skills Programme (CASP) and the Mixed Methods Appraisal Tool (MMAT) were utilized for assessing the quality of included studies. Data synthesis employed thematic analysis to identify recurring patterns and insights, presenting the findings in narrative and tabular formats. The synthesis identified challenges, opportunities, and policy implications, emphasizing cooperatives' contributions to empowering women entrepreneurs in agriculture, particularly in promoting access to resources, improving economic resilience, and fostering gender equity. Findings were contextualized within frameworks of sustainable development and inclusive economic growth. The flowchart shown in figure 1 illustrating the PRISMA

The flowchart shown in figure 1 illustrating the PRISMA framework stages was developed to depict the methodology visually. The flowchart above represents the PRISMA methodology stages for the systematic review on "Fostering Inclusive Economies: The Role of Cooperatives in Empowering Women Entrepreneurs in Agriculture." It visually details the process from record identification to study inclusion.

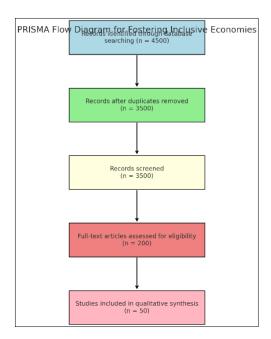


Fig 1: Prisma Flow chart of the study methodology

### 2.1. Barriers Faced by Women Entrepreneurs in Agriculture

Women entrepreneurs in agriculture play a vital role in food production and economic development, yet they face a multitude of barriers that hinder their ability to thrive. These barriers, deeply entrenched in structural inequalities and socio-cultural norms, significantly limit women's opportunities to fully participate in and benefit from

agricultural entrepreneurship. Addressing these challenges is crucial for fostering inclusive economies and empowering women as key drivers of sustainable development (Attah, Ogunsola & Garba, 2023, Hassan, *et al.*, 2023, Osunbor, *et al.*, 2023). Conceptual framework for the construction of women empowerment and women autonomy index presented by Haque, *et al.*, 2011, is shown in figure 2.

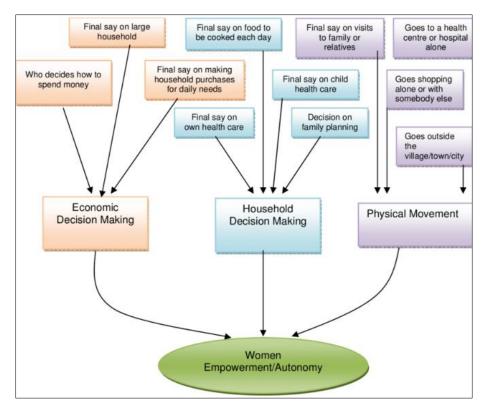


Fig 2: Conceptual framework for the construction of women empowerment and women autonomy index (Haque, et al., 2011).

One of the most significant barriers faced by women entrepreneurs in agriculture is limited access to essential resources such as land, credit, and financial services. Land ownership remains a critical issue in many emerging economies, where traditional inheritance systems and discriminatory legal frameworks prevent women from owning or controlling land (Attah, et al., 2024, Hassan, et al., 2024, Oyeniyi, Ugochukwu & Mhlongo, 2024, Sule, et al., 2024). In some cases, women are permitted only secondary use of land owned by male family members, which limits their decision-making power and ability to invest in longterm agricultural ventures. Without secure land tenure, women struggle to access credit or financial services, as land is often required as collateral for loans (Attah, Ogunsola & Garba, 2023, Bristol-Alagbariya, Ayanponle & Ogedengbe, 2023, Daraojimba, et al., 2023). This creates a cycle of disadvantage, as the lack of financial resources prevents women from investing in better inputs, technologies, and infrastructure needed to improve productivity and grow their businesses. Additionally, financial institutions in many regions continue to favor male entrepreneurs, further restricting women's access to credit and reinforcing gender disparities in agricultural entrepreneurship (Attah, et al., 2024, Dada, et al., 2024, Iwuanyanwu, et al., 2024, Soremekun, et al., 2024).

Beyond resource constraints, the lack of training and

knowledge poses a significant challenge for women entrepreneurs in agriculture. Technical skills, such as modern farming techniques, pest management, and sustainable practices, are often inaccessible to women due to gender biases in extension services and training programs. For agricultural extension workers, predominantly male in many regions, may prioritize male farmers when disseminating information and providing support (Arinze, et al., 2024, Oyeniyi, Ugochukwu & Mhlongo, 2024, Sule, et al., 2024, Toromade & Chiekezie, 2024). This unequal access to technical knowledge limits women's ability to adopt innovative practices that could enhance their productivity and competitiveness. Similarly, the lack of business acumen, including skills in financial management, marketing, and negotiation, further hampers women's ability to manage and grow their agricultural enterprises (Ajiga, et al., 2024, Dada, et al., 2024, Soremekun, et al., 2024). Training programs that do exist often fail to account for the unique challenges faced by women, such as time constraints due to household responsibilities or limited mobility, resulting in their exclusion from critical capacity-building opportunities. Arowosegbe, et al., 2024, presented the Economic Importance of Agriculture with Regards to Supply Chain as shown in figure 3.

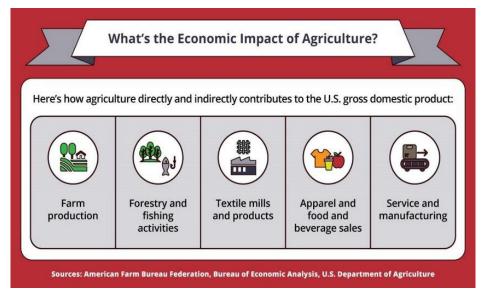


Fig 3: Economic Importance of Agriculture with Regards to Supply Chain (Arowosegbe, et al., 2024).

Inadequate market access is another significant barrier for women entrepreneurs in agriculture. Women often face challenges in reaching both local and global markets due to logistical constraints, discriminatory practices, and a lack of market information. For instance, women may have limited access to transportation or face safety concerns when traveling to distant markets (Akinsulire, et al., 2024, Collins, et al., 2024, Uwaoma, et al., 2023). Additionally, maledominated value chains can exclude women from lucrative market opportunities, relegating them to lower-value activities such as subsistence farming or selling produce in informal markets (Attah, et al., 2024, Hassan, et al., 2024, Eyo-Udo, et al., 2024, Toromade & Chiekezie, 2024). The absence of market information further compounds the problem, as women are often unaware of prevailing market prices, demand trends, or export opportunities. This lack of access to reliable market data leaves women vulnerable to exploitation by intermediaries and limits their ability to negotiate fair prices for their products (Agho, et al., 2023, Collins, et al., 2023, Ikwuanusi, Adepoju & Odionu, 2023). Without adequate market access, women entrepreneurs are unable to scale their businesses, generate higher incomes, or contribute meaningfully to local and national economies.

Social and cultural constraints further exacerbate the challenges faced by women entrepreneurs in agriculture. Deeply ingrained gender biases and traditional norms often limit women's decision-making power and participation in agricultural value chains. In many societies, women are to prioritize household and caregiving responsibilities over economic activities, leaving them with limited time and energy to invest in their businesses (Ajani & Oluwaseun, 2023, Hassan, et al., 2023, Toromade & Chiekezie, 2024). These societal expectations also discourage women from pursuing leadership roles in cooperatives, producer organizations, or community initiatives, restricting their influence and access to resources. Furthermore, women frequently encounter gender-based discrimination in labor markets, supply chains, and financial institutions, which undermines their confidence and entrepreneurial ambitions (Agho, et al., 2022, Collins, Hamza & Eweje, 2022). In some cases, cultural norms and restrictive practices even prevent women from owning or inheriting assets, further entrenching their economic marginalization. Figure 4 shows the Conceptual framework of women's economic empowerment as presented by Williams, Väisänen & Padmadas, 2022.

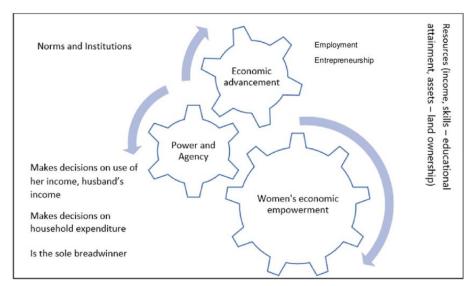


Fig 4: Conceptual framework of women's economic empowerment (Williams, Väisänen & Padmadas, 2022).

The unequal decision-making power within households and communities is another manifestation of social and cultural constraints. In many contexts, men are considered the primary decision-makers, while women's opinions and contributions are undervalued. This imbalance extends to agricultural activities, where women's preferences regarding crop selection, resource allocation, or marketing strategies may be disregarded (Gil-Ozoudeh, et al., 2023, Hamza, et al., 2023, Onukwulu, Agho & Eyo-Udo, 2023). As a result, women are often excluded from critical decisions that directly impact the success of their businesses. The lack of representation and voice in decision-making processes also perpetuates the cycle of marginalization, as women are unable to advocate for their needs or challenge systemic barriers (Ikwuanusi, Adepoju & Odionu, 2023).

These interconnected barriers—limited access to resources, lack of training and knowledge, inadequate market access, and social and cultural constraints—create a complex web of disproportionately challenges that affect entrepreneurs in agriculture. Addressing these challenges requires a holistic approach that considers the structural, economic, and social dimensions of gender inequality (Ewim, et al., 2022, Gil-Ozoudeh, et al., 2022, Oyegbade, et al., 2022). Efforts to empower women in agriculture must prioritize securing land rights, improving access to credit and financial services, and providing targeted training programs that build technical and business skills. Additionally, creating inclusive value chains and ensuring equitable access to markets can help women entrepreneurs realize their economic potential (Alex-Omiogbemi, et al., 2024).

Tackling social and cultural constraints is equally important, as these barriers often underpin the structural inequalities that limit women's opportunities. This involves challenging traditional norms, promoting gender equality, and fostering environments where women can participate fully in economic and decision-making processes. Public awareness campaigns, education initiatives, and gender-sensitive policies can play a pivotal role in shifting societal attitudes and breaking down stereotypes (Agho, *et al.*, 2021, Onukwulu, *et al.*, 2021, Oyeniyi, *et al.*, 2021). Furthermore, fostering collective action through cooperatives and producer organizations can amplify women's voices and enhance their bargaining power, enabling them to overcome systemic barriers and build more resilient agricultural businesses.

In conclusion, the barriers faced by women entrepreneurs in agriculture are multifaceted and deeply rooted in structural inequalities and socio-cultural norms. These challenges limit women's access to resources, training, markets, and decisionmaking opportunities, undermining their potential to contribute to economic growth and sustainable development (Ajayi, Toromade & Olagoke, 2024, Chumie, et al., 2024, Ijomah, et al., 2024, Shittu, et al., 2024). Addressing these barriers requires a comprehensive and coordinated approach that empowers women, promotes gender equality, and creates enabling environments for their entrepreneurial success (Akinmoju, et al., 2024, Hassan, et al., 2024, Orieno, et al., 2024, Toromade, et al., 2024). By tackling these challenges, emerging economies can unlock the full potential of women in agriculture, fostering inclusive economies and driving progress toward a more equitable and sustainable future.

### **2.2.** Role of Cooperatives in Empowering Women Entrepreneurs

Cooperatives are collective organizations formed by individuals who voluntarily unite to meet their common economic, social, and cultural needs through joint ownership and democratic governance. These entities play a transformative role in empowering women entrepreneurs, particularly in agriculture, by addressing systemic challenges and fostering inclusive economic participation (Attah, et al., 2024, Hamza, et al., 2023, Toromade & Chiekezie, 2024). Cooperatives come in various forms, including producer cooperatives, marketing cooperatives, and financial cooperatives, each designed to meet specific needs. Producer cooperatives enable members to pool resources for production, such as land, tools, or livestock, while marketing cooperatives focus on aggregating and selling members' products to gain better market access and pricing. Financial cooperatives, such as credit unions, provide affordable financial services, including savings and credit, to their members (Awoyemi, et al., 2023, Ikwuanusi, Adepoju & Odionu, 2023, Chikezie, et al., 2023). These different types of cooperatives serve as vital platforms for collective action, resource sharing, and economic empowerment, particularly for women entrepreneurs in agriculture.

One of the most significant benefits of cooperatives is their ability to facilitate resource pooling, which is especially valuable for women entrepreneurs who often lack access to individual resources. By coming together in a cooperative, women can combine their assets, such as land, labor, and capital, to achieve economies of scale and improve productivity. For example, members of a producer cooperative can share farming equipment, purchase inputs like seeds and fertilizers in bulk, and collectively negotiate better prices with suppliers (Ajiga, et al., 2024, Hamza, et al., 2024, Oyedokun, Ewim & Oyeyemi, 2024). This collective approach not only reduces individual costs but also enhances overall efficiency and competitiveness. Additionally, cooperatives provide women with access to affordable credit through internal savings schemes or partnerships with financial institutions. This is particularly important in regions where women face barriers to formal financial services due to a lack of collateral or discriminatory lending practices (Avwioroko, 2023, Ijomah, et al., 2024, Schuver, et al., 2024). By offering small loans and flexible repayment terms, financial cooperatives enable women to invest in their businesses, adopt new technologies, and expand their operations.

Market linkages are another critical benefit of cooperatives, as they help women entrepreneurs overcome the challenges of accessing local and global markets. Through marketing cooperatives, women can aggregate their produce and gain access to formal supply chains, bypassing exploitative intermediaries and securing better prices. For instance, a group of women farmers growing vegetables can collectively negotiate contracts with supermarkets or export companies, ensuring a stable demand for their products (Alonge, Dudu & Alao, 2024, Oyedokun, Ewim & Oyeyemi, 2024, Toromade, et al., 2024). Marketing cooperatives also provide women with valuable market information, such as price trends and quality standards, enabling them to make informed decisions

and compete effectively. Furthermore, cooperatives often facilitate value addition by investing in processing facilities or branding initiatives, allowing members to capture higher margins and diversify their income streams (Attah, *et al.*, 2024, Ijomah, *et al.*, 2024, Sam-Bulya, *et al.*, 2024).

Knowledge sharing and capacity building are integral components of cooperative models, providing women entrepreneurs with the skills and information needed to enhance their productivity and resilience. Cooperatives often organize training programs on topics such as sustainable farming practices, financial management, and market analysis, equipping members with the technical and business acumen required to succeed. These programs are particularly impactful for women, who are often excluded from traditional extension services and educational opportunities due to gender biases or time constraints (Apeh, et al., 2024, Gil-Ozoudeh, et al., 2024, Oyedokun, Ewim & Oyeyemi, 2024). By creating a supportive environment for learning and innovation, cooperatives empower women to adopt new technologies, improve their practices, and navigate complex market dynamics. Additionally, cooperatives serve as platforms for peer-to-peer learning, where members can exchange experiences, share best practices, and support each other in overcoming challenges (Chikezie, et al., 2022, Iwuanyanwu, et al., 2022, Popo-Olaniyan, et al., 2022).

Cooperatives also play a crucial role in enhancing women's economic independence by promoting decision-making power and social capital. Within the cooperative structure, all members have equal voting rights and opportunities to participate in governance, regardless of their individual contributions. This democratic model ensures that women have a voice in key decisions, such as resource allocation, pricing strategies, and investment priorities (Attah, et al., 2024, Oyedokun, et al., 2024, Toromade, et al., 2024). By actively participating in decision-making processes, women develop leadership skills, build confidence, and challenge traditional gender norms that often marginalize them in other settings. The social capital generated through cooperative membership further strengthens women's economic independence, as it fosters networks of trust, collaboration, and mutual support. These networks enable women to advocate for their rights, access new opportunities, and navigate socio-economic barriers more effectively (Anjorin, et al., 2024, Ijomah, et al., 2024, Sam-Bulya, et al., 2024). Case studies from different regions illustrate the

transformative impact of cooperatives on empowering women entrepreneurs and fostering inclusive economies. In sub-Saharan Africa, cooperatives have been instrumental in improving the livelihoods of women farmers. For example, in Rwanda, the Tuzamurane Cooperative has supported women pineapple farmers by providing training, access to inputs, and market linkages (Attah, et al., 2024, Bristol-Alagbariya, Ayanponle & Ogedengbe, 2024, Sam-Bulya, et al., 2024). Through this cooperative, women have been able to increase their yields, secure contracts with export companies, and generate higher incomes, which they have reinvested in their families and communities (Ajirotutu, et al., 2024, Ezeife, et al., 2024, Oyedokun, et al., 2024). The cooperative has also promoted gender equality by encouraging women to take on leadership roles and participate in decision-making processes, challenging traditional gender norms and creating a more inclusive agricultural sector.

In South Asia, cooperatives have similarly empowered

women entrepreneurs in agriculture. In India, the Self-Employed Women's Association (SEWA) has organized women into cooperatives across various sectors, including farming, dairy production, and handicrafts. SEWA cooperatives provide members with access to credit, training, and markets, enabling them to improve their productivity and income (Bristol-Alagbariya, Ayanponle & Ogedengbe, 2022, Popo-Olaniyan, *et al.*, 2022). For example, women in dairy cooperatives receive support in milk collection, processing, and marketing, allowing them to tap into formal supply chains and earn stable incomes (Alao, *et al.*, 2024, Ezeife, *et al.*, 2024, Gil-Ozoudeh, *et al.*, 2024). These cooperatives also play a vital role in advocating for policy changes that benefit women entrepreneurs, such as subsidies for inputs or access to government schemes.

In Latin America, cooperatives have played a key role in promoting sustainable agriculture and economic empowerment for women. In Nicaragua, the SOPPEXCCA cooperative has supported women coffee farmers by providing training on organic farming practices, access to fair trade markets, and opportunities for leadership development. The cooperative has also invested in community projects, such as education and healthcare, benefiting members and their families (Bristol-Alagbariya, Ayanponle & Ogedengbe, 2022, Ikwuanusi, et al., 2022). By enabling women to participate in high-value agricultural activities and earn fair prices for their products, the cooperative has significantly improved their socio-economic status and contributed to the development of inclusive rural economies (Ajiga, et al., 2024, Mokogwu, et al., 2024, Oyeniyi, Ugochukwu & Mhlongo, 2024).

In conclusion, cooperatives serve as powerful enablers of economic empowerment and inclusion for women entrepreneurs in agriculture. By facilitating resource pooling, providing access to affordable credit, and creating market linkages, cooperatives address many of the systemic barriers that women face. Additionally, through knowledge sharing, capacity building, and democratic governance, cooperatives enhance women's skills, confidence, and decision-making power, fostering greater economic independence and social capital (Onukwulu, Agho & Eyo-Udo, 2021, Tula, et al., 2004). Case studies from sub-Saharan Africa, South Asia, and Latin America highlight the transformative potential of cooperatives in improving women's livelihoods, promoting gender equality, and fostering inclusive economies. As global efforts to achieve sustainable development and gender equity continue, the role of cooperatives in empowering women entrepreneurs will remain central to building resilient and inclusive agricultural systems (Akinsulire, et al., 2024, Bristol-Alagbariya, Ayanponle & Ogedengbe, 2024).

### 2.3. Challenges Faced by Cooperatives

Cooperatives play a vital role in fostering inclusive economies and empowering women entrepreneurs in agriculture, yet they face numerous challenges that undermine their potential. These challenges, ranging from limited financial resources and inadequate infrastructure to deeply rooted cultural and gender biases, create significant barriers to the effectiveness and sustainability of cooperatives. Addressing these issues is crucial for unlocking the full potential of cooperatives as vehicles for economic empowerment and social equity (Chikezie, *et al.*, 2022, Onukwulu, *et al.*, 2022).

One of the most significant challenges faced by cooperatives

is limited funding and financial support. Cooperatives often struggle to access the capital required to establish and sustain their operations. This difficulty arises from several factors, including the lack of collateral, poor creditworthiness of members, and insufficient financial literacy within the cooperative (Attah, Ogunsola & Garba, 2022, Bristol-Alagbariya, Ayanponle & Ogedengbe, 2022). Many financial institutions are hesitant to lend to cooperatives, perceiving them as high-risk borrowers due to their collective ownership structure and dependence on member contributions. For women-focused cooperatives, the challenge is even greater, as gender biases in financial systems further restrict access to credit (Onukwulu, Agho & Eyo-Udo, 2021, Tula, et al., 2004). Without adequate funding, cooperatives face difficulties in procuring resources, investing in technology, or expanding their activities. Limited financial resources also hinder cooperatives from offering competitive prices for members' products, providing them with timely payments, or supporting capacity-building initiatives. This financial strain affects the cooperative's ability to achieve its goals and deliver meaningful benefits to its members.

The reliance on member contributions as a primary source of funding creates additional vulnerabilities. Members, particularly women in agriculture, often have limited financial means to contribute significantly to the cooperative's capital base. In times of economic hardship or low agricultural yields, member contributions may decline, leaving cooperatives unable to cover operational costs or invest in growth. This cyclical challenge underscores the need for diversified and sustainable funding models that enable cooperatives to operate effectively while reducing their dependence on member contributions (Chikezie, *et al.*, 2022, Onukwulu, *et al.*, 2022).

Poor infrastructure is another critical challenge that undermines the success of cooperatives. In many emerging economies, inadequate transportation networks, lack of storage facilities, and limited access to markets create significant barriers for cooperatives in agriculture (Alex-Omiogbemi, et al., 2024, Paul, Ogugua & Eyo-Udo, 2024). Poor road conditions and unreliable transportation systems make it difficult for cooperatives to move products from rural areas to urban markets, leading to delays, increased costs, and reduced competitiveness. Perishable agricultural products are particularly affected, as the lack of cold storage facilities results in significant post-harvest losses and diminished income for members (Avwioroko, 2023, Gidiagba, et al., 2023, Onukwulu, Agho & Eyo-Udo, 2023).

Market access is further constrained by the absence of wellfunctioning supply chains and the dominance of intermediaries who exploit small-scale Cooperatives often struggle to establish direct relationships with buyers, such as supermarkets or exporters, due to logistical challenges and their limited capacity to meet the quality and quantity requirements of these markets (Attah, et al., 2024, Bristol-Alagbariya, Ayanponle & Ogedengbe, 2024, Paul, Ogugua & Eyo-Udo, 2024). Additionally, inadequate digital infrastructure prevents cooperatives from leveraging e-commerce platforms or accessing market information, leaving them at a disadvantage in a rapidly digitalizing economy (Ajirotutu, et al., 2024, Fidelis, et al., 2024). These infrastructure challenges not only limit the economic potential of cooperatives but also diminish their ability to improve the livelihoods of their members.

Cultural and gender biases pose significant obstacles to the

inclusivity and effectiveness of cooperatives, particularly those focused on empowering women entrepreneurs. In many societies, deeply ingrained gender norms and patriarchal structures limit women's participation in economic activities, including cooperatives. Women are often excluded from decision-making roles or leadership positions within cooperatives, reinforcing traditional power imbalances and restricting their ability to influence the direction and priorities of the organization (Akinsulire, *et al.*, 2024, Faith, 2018, Onukwulu, *et al.*, 2021). This exclusion undermines the cooperative's potential to serve as a platform for women's empowerment and perpetuates gender inequality within the community.

Resistance to women's participation in cooperatives is further compounded by social attitudes that prioritize men's economic contributions over women. In some cases, women are discouraged from joining cooperatives or actively participating in their activities due to societal expectations that they focus on household responsibilities. Even when women are members of cooperatives, they may face skepticism or discrimination from male members, who may question their capabilities or undervalue their contributions. These cultural biases not only hinder women's economic empowerment but also weaken the cooperative by limiting its access to diverse perspectives, skills, and resources (Attah, *et al.*, 2024, Basiru, *et al.*, 2023, Ewim, *et al.*, 2023, Onukwulu, Agho & Eyo-Udo, 2023, Uwaoma, *et al.*, 2023).

The lack of gender-sensitive policies and practices within cooperatives exacerbates these challenges. cooperatives fail to implement measures that address the specific needs and constraints of women members, such as flexible meeting schedules, childcare support, or targeted training programs. Without such initiatives, women may struggle to balance their cooperative activities with household responsibilities or to access the knowledge and skills needed to contribute effectively. This lack of inclusivity diminishes the cooperative's ability to foster equitable participation and undermines its role in promoting gender equality (Egbumokei, et al., 2021, Onukwulu, et al., 2022, Popo-Olaniyan, et al., 2022).

The challenges of limited funding, poor infrastructure, and cultural and gender biases are deeply interconnected, creating a complex web of obstacles that cooperatives must navigate. For example, the lack of financial resources restricts cooperatives from investing in infrastructure improvements, while inadequate infrastructure limits their ability to generate revenue and attract funding (Alonge, Dudu & Alao, 2024, Eyo-Udo, Odimarha & Kolade, 2024, Onukwulu, *et al.*, 2021). Similarly, cultural and gender biases exacerbate financial and logistical challenges by excluding women from leadership roles or decision-making processes that could address these issues. These interdependencies highlight the need for holistic and multi-stakeholder approaches to overcome the challenges faced by cooperatives.

To address the issue of limited funding, cooperatives require access to diversified financing options, such as grants, low-interest loans, or public-private partnerships. Governments and development organizations can play a crucial role in providing financial support to cooperatives, particularly those that focus on empowering women or promoting sustainability. Additionally, cooperatives can explore innovative funding models, such as impact investing or crowdfunding, to mobilize resources from diverse stakeholders (Apeh, *et al.*, 2024, Eyo-Udo, Odimarha &

Ejairu, 2024, Onukwulu, Agho & Eyo-Udo, 2021). Capacity-building initiatives that enhance the financial literacy of cooperative members and leaders are also essential, enabling them to manage resources effectively and strengthen the cooperative's financial resilience.

Improving infrastructure requires coordinated efforts from governments, private sector actors, and development organizations. Investments in transportation, storage facilities, and digital connectivity can significantly enhance the efficiency and competitiveness of cooperatives, enabling them to access larger markets and reduce post-harvest losses. For example, the establishment of cold storage facilities in rural areas can help cooperatives preserve perishable products, extending their shelf life and increasing their market value. Similarly, the development of e-commerce platforms or mobile applications can enable cooperatives to reach new customers and access market information in real time (Attah, *et al.*, 2024, Eyo-Udo, *et al.*, 2024, Onukwulu, Agho & Eyo-Udo, 2022).

Overcoming cultural and gender biases necessitates a shift in societal attitudes and the implementation of gender-sensitive policies within cooperatives. Public awareness campaigns, education initiatives, and advocacy efforts can challenge traditional norms and promote the value of women's participation in economic activities (Ajayi, Toromade & Olagoke, 2024, Oyeniyi, Ugochukwu & Mhlongo, 2024). Within cooperatives, measures such as quotas for women in leadership positions, targeted training programs, and inclusive decision-making processes can ensure that women have equal opportunities to contribute and benefit (Ajiga, *et al.*, 2024, Eyo-Udo, 2024, Toromade, *et al.*, 2024). Building alliances with women's organizations or NGOs can further strengthen cooperatives' efforts to address gender biases and promote inclusivity.

In conclusion, cooperatives face significant challenges in fostering inclusive economies and empowering women entrepreneurs in agriculture. Limited funding, poor infrastructure, and cultural and gender biases undermine their potential to drive economic and social transformation (Akinsulire, et al., 2024). Addressing these challenges requires a comprehensive approach that includes financial support, infrastructure development, and the promotion of gender equality. By overcoming these barriers, cooperatives can become powerful instruments for empowering women, fostering inclusive growth, and driving sustainable development in emerging economies (Akinsulire, et al., 2024, Ewim & Adewale, 2022, Onukwulu, Agho & Eyo-Udo, 2022).

### 2.4. Strategies to Strengthen Cooperatives

Strengthening cooperatives is essential for fostering inclusive economies and empowering women entrepreneurs in agriculture. As cooperatives face numerous challenges, including limited funding, inadequate infrastructure, and gender biases, adopting comprehensive strategies can enhance their effectiveness, sustainability, and impact. By leveraging digital technologies, fostering public-private partnerships, promoting gender-responsive policies, and implementing capacity-building initiatives, cooperatives can overcome barriers and play a transformative role in advancing economic equity and social inclusion (Avwioroko & Ibegbulam, 2024, Ewim, *et al.*, 2024, Onukwulu, Agho & Eyo-Udo, 2023).

Leveraging digital technologies is a powerful strategy to

enhance the efficiency and reach of cooperatives. Ecommerce platforms, for example, provide cooperatives with access to wider markets, enabling members to sell their products directly to consumers or businesses without relying exploitative intermediaries (Bristol-Alagbariya, Ayanponle & Ogedengbe, 2023, Uwumiro, et al., 2023). These platforms allow cooperatives to showcase their goods to a global audience, ensuring better pricing and higher revenues for their members. For women entrepreneurs, ecommerce eliminates many traditional market access barriers, such as limited mobility or logistical constraints, by facilitating online transactions and doorstep delivery services (Attah, Ogunsola & Garba, 2023, Onukwulu, Agho & Eyo-Udo, 2023, Tula, et al., 2023). Mobile banking is another critical digital solution that enables cooperatives to address financial barriers. Through mobile banking platforms, members can access savings, loans, and payment services without the need for traditional banking infrastructure, which is often inaccessible in rural areas. Mobile banking not only improves financial inclusion but also enhances the cooperative's ability to manage funds transparently and efficiently.

Digital training platforms further empower cooperatives by providing members with access to knowledge and skills. Online courses, webinars, and mobile-based training modules can deliver critical information on agricultural practices, financial management, and market trends to cooperative members, even in remote locations. For women entrepreneurs, digital training platforms provide an opportunity to acquire technical and business skills at their convenience, overcoming barriers such as time constraints and limited access to physical training centers (Alex-Omiogbemi, *et al.*, 2024, Iwuanyanwu, *et al.*, 2024). By adopting digital technologies, cooperatives can modernize their operations, improve productivity, and expand their impact, particularly in emerging economies where traditional systems often fall short.

Fostering public-private partnerships is another essential strategy for strengthening cooperatives. Collaboration between governments, non-governmental organizations (NGOs), and the private sector can provide cooperatives with the resources, expertise, and networks needed to address systemic challenges (Attah, et al., 2024, Bristol-Alagbariya, Ayanponle & Ogedengbe, 2024, Oyeniyi, Ugochukwu & Mhlongo, 2024). Governments play a crucial role in creating an enabling environment for cooperatives by implementing supportive policies, investing in infrastructure, and providing financial incentives. For example, governments can offer tax exemptions or subsidies to cooperatives that promote sustainability or women's empowerment, reducing operational costs and encouraging growth (Arinze, et al., 2024, Ewim, et al., 2024, Paul, Ogugua & Eyo-Udo, 2024). Public-private partnerships can also facilitate infrastructure development, such as the construction of storage facilities, transportation networks, or digital connectivity, which are critical for the success of cooperatives.

NGOs and private sector actors bring valuable expertise and resources to these partnerships. NGOs can provide technical assistance, training, and advocacy support to cooperatives, helping them build capacity and navigate regulatory frameworks. The private sector, on the other hand, can offer market linkages, technology solutions, and funding opportunities. For instance, a private company specializing in agricultural technology might partner with cooperatives to

provide access to precision farming tools or data analytics platforms, enhancing productivity and sustainability (Attah, et al., 2024, Eleogu, et al., 2024, Onesi-Ozigagun, et al., 2024). Public-private partnerships can also foster innovation by bringing together diverse stakeholders to co-create solutions that address the unique needs of cooperatives and their members.

Promoting gender-responsive policies is critical for empowering women-led cooperatives and removing structural barriers that hinder their participation. Genderresponsive policies focus on creating an inclusive and equitable environment that supports women's economic empowerment and addresses systemic inequalities. For instance, governments can implement policies that ensure women have equal access to land ownership, credit, and training programs, enabling them to participate fully in cooperative activities (Ajirotutu, et al., 2024, ElachiApeh, et al., 2024, Nnaji, et al., 2024). Policies that promote gender quotas in cooperative leadership positions can also help ensure that women's voices are represented in decisionmaking processes. This is particularly important for addressing gender biases within cooperatives and fostering a culture of inclusivity.

Structural barriers, such as discriminatory inheritance laws or limited access to childcare, must also be addressed through policy interventions. Governments can introduce legal reforms to ensure that women have equal rights to inherit land or access financial services. Additionally, policies that provide childcare support or flexible work arrangements can help women balance their cooperative activities with household responsibilities, enabling greater participation and contribution (Ajiga, et al., 2024, Ekemezie, et al., 2024, Nnaji, et al., 2024). Gender-responsive policies should also include measures to raise awareness and challenge societal attitudes that limit women's economic opportunities. Public campaigns, educational programs, and community dialogues can help shift perceptions and create a supportive environment for women entrepreneurs.

Capacity-building initiatives are another vital strategy for strengthening cooperatives and empowering women entrepreneurs. Training programs and development initiatives equip members with the knowledge and skills needed to manage and grow their cooperatives effectively. For women, these programs are particularly transformative, as they address the gaps in technical expertise, financial literacy, and management capabilities that often result from systemic exclusion (Anozie, etal., 2024, Ekechi, et al., 2024, Nnaji, et al., 2024). Training programs can cover a wide range of topics, including sustainable farming practices, marketing strategies, digital literacy, and cooperative governance, ensuring that members are wellprepared to navigate challenges and seize opportunities.

Leadership development initiatives are equally important for fostering women's empowerment within cooperatives. These initiatives focus on building confidence, communication skills, and decision-making abilities, enabling women to take on leadership roles and influence the direction of their cooperatives. For instance, mentorship programs that pair experienced leaders with emerging women leaders can provide valuable guidance and support, helping women overcome barriers and realize their potential (Ajayi, Toromade & Olagoke, 2024, Ekechi, *et al.*, 2024, Nnaji, *et al.*, 2024). Capacity-building initiatives also play a critical role in fostering innovation and resilience, as they enable

cooperatives to adapt to changing market conditions, adopt new technologies, and respond to emerging challenges.

Real-life examples demonstrate the effectiveness of these strategies in strengthening cooperatives and empowering women. In Kenya, a public-private partnership between the government, NGOs, and private companies has supported dairy cooperatives by providing access to milk processing facilities, training programs, and market linkages. This collaboration has improved the livelihoods of women dairy farmers, enabling them to earn stable incomes and participate in decision-making processes (Attah, et al., 2024, Egieya, et al., 2024, Nnaji, et al., 2024, Udeh, et al., 2024). Similarly, in India, digital training platforms developed by NGOs have provided women in agricultural cooperatives with access to online courses on sustainable farming practices and financial management, empowering them to improve productivity and profitability.

In conclusion, strengthening cooperatives requires a multifaceted approach that leverages digital technologies, fosters public-private partnerships, promotes gender-responsive policies, and implements capacity-building initiatives. These strategies address the systemic challenges faced by cooperatives, enabling them to overcome financial constraints, infrastructure gaps, and cultural biases (Iwe, et al., 2023). By adopting these approaches, cooperatives can enhance their effectiveness, expand their impact, and play a central role in fostering inclusive economies and empowering women entrepreneurs. As cooperatives continue to evolve and adapt to changing global dynamics, these strategies will remain critical for ensuring their sustainability and success, particularly in emerging economies where the need for inclusive growth is most urgent (Avwioroko, 2023, Basiru, et al., 2023, Ihemereze, et al., 2023).

### 2.5. Recommendations for Policymakers and Stakeholders

Policymakers and stakeholders play a critical role in fostering inclusive economies by supporting the development of cooperatives that empower women entrepreneurs in agriculture. Cooperatives serve as powerful tools for collective action, resource sharing, and economic empowerment, but their success depends significantly on the enabling environment provided by supportive policies, governance structures, and stakeholder engagement (Collins, Hamza & Eweje, 2022). To ensure that cooperatives achieve their full potential in advancing women's economic empowerment, targeted recommendations for financial assistance, inclusive governance, and addressing systemic challenges are essential.

One of the most effective ways to support cooperative development is through financial assistance and technical support. Many cooperatives, particularly those led by women, struggle to access the resources needed to sustain and grow their operations. Policymakers can address this by providing grants, low-interest loans, or subsidies specifically designed to support cooperatives in agriculture. These financial mechanisms can help cooperatives invest in essential infrastructure, purchase equipment, and adopt innovative technologies that enhance productivity and competitiveness (Agho, et al., 2023, Ihemereze, et al., 2023, Neupane, et al., 2023, Uwaoma, et al., 2023). Additionally, establish dedicated governments can cooperative development funds, ensuring that financial support reaches cooperatives in underserved or rural areas.

Technical support is equally important for cooperative

development. Governments and stakeholders can provide cooperatives with access to training programs, advisory services, and mentorship opportunities that build capacity and enhance operational efficiency. For instance, technical assistance can focus on improving agricultural practices, production implementing sustainable methods, strengthening financial management systems (Attah, et al., 2024, Basiru, et al., 2024, Oyeniyi, Ugochukwu & Mhlongo, 2024). Women entrepreneurs, in particular, benefit from training programs that address gaps in technical knowledge and business acumen, enabling them to navigate the complexities of agricultural value chains and market dynamics (Awoyemi, et al., 2023, Myllynen, et al., 2024, Uwumiro, et al., 2024). Collaborative efforts between policymakers, NGOs, and academic institutions can further enhance the impact of technical support by tailoring programs to the specific needs of cooperatives and their members.

Promoting inclusive governance within cooperatives is another critical recommendation for policymakers and stakeholders. Inclusive governance ensures that all members, regardless of gender, have equal opportunities to participate in decision-making processes and leadership roles. Policymakers can mandate gender quotas or other affirmative action measures to guarantee women's representation in cooperative leadership. For example, regulations can require that a minimum percentage of board members or key decision-makers in cooperatives be women, fostering gender balance and ensuring that women's voices are heard at all levels of governance (Avwioroko, 2023, Bristol-Alagbariya, Ayanponle & Ogedengbe, 2023, Efobi, et al., 2023). These measures not only promote equity but also enhance the effectiveness of cooperatives by leveraging diverse perspectives and experiences.

Stakeholders can also support inclusive governance by providing leadership development programs that equip women with the skills and confidence needed to take on leadership roles. Such programs can include mentorship opportunities, workshops on governance best practices, and initiatives that foster peer-to-peer learning among women leaders. By empowering women to lead, cooperatives can challenge traditional gender norms and create a culture of inclusivity that benefits all members (Attah, et al., 2024, Ebeh, et al., 2024, Mokogwu, et al., 2024, Usman, et al., 2024). Additionally, promoting transparency accountability in cooperative governance is essential for building trust among members and ensuring that decisions reflect the collective interests of the group.

Addressing systemic challenges, such as infrastructure deficits and cultural biases, is essential for creating an environment for cooperatives Infrastructure deficits, including inadequate transportation networks, storage facilities, and market access, significantly hinder the ability of cooperatives to operate efficiently and compete effectively (Attah, et al., 2024, Igwe, et al., 2024, Oyeniyi, Ugochukwu & Mhlongo, 2024). Policymakers must prioritize investments in rural infrastructure, ensuring that cooperatives have access to the physical and digital resources needed to connect with markets and optimize supply chain operations. For instance, building cold storage facilities in agricultural regions can help cooperatives reduce postharvest losses and increase the value of their products (Alex-Omiogbemi, et al., 2024, Ebeh, et al., 2024, Mokogwu, et al., 2024). Similarly, improving rural transportation networks

can enhance the mobility of cooperative members and facilitate the movement of goods to local and global markets. Digital infrastructure is another critical area for investment. Policymakers can support the development of digital platforms and tools that enable cooperatives to access market information, conduct transactions, and engage with stakeholders. For example, mobile-based applications that provide real-time data on weather conditions, market prices, or supply chain logistics can empower cooperatives to make informed decisions and improve productivity. Governments can also promote the use of e-commerce platforms, enabling cooperatives to reach new markets and sell their products directly to consumers or businesses (Ajirotutu, et al., 2024, Ebeh, et al., 2024, Mokogwu, et al., 2024, Uwumiro, et al., 2024). These digital solutions not only enhance the efficiency of cooperatives but also expand economic opportunities for women entrepreneurs in agriculture.

Cultural biases and gender-based discrimination remain significant barriers to the inclusion and empowerment of women in cooperatives. Policymakers and stakeholders must actively work to challenge and transform these societal gender norms. promoting equality and fostering environments where women can participate fully and equally in economic activities. Public awareness campaigns and education initiatives are effective tools for addressing cultural highlighting the contributions of biases, entrepreneurs and advocating for their rights (Attah, et al., 2024, Ebeh, et al., 2024, Mokogwu, et al., 2024, Ugwuoke, et al., 2024). These efforts can help shift perceptions and create a more supportive atmosphere for women's participation in cooperatives and other economic ventures.

Policymakers can further address cultural barriers by implementing legal reforms that promote gender equality and protect women's rights. For instance, laws that ensure women's equal access to land ownership, inheritance, and financial services can empower women to participate in cooperatives and contribute to their success. Enforcement mechanisms should be strengthened to ensure compliance with these laws and to address instances of discrimination or exclusion (Akinsulire, et al., 2024, Ebeh, et al., 2024, Mbakop, et al., 2024, Uwumiro, et al., 2024). Additionally, policymakers can establish gender-sensitive policies that provide women with access to childcare, flexible work arrangements, or other support systems that enable them to balance their cooperative activities with household responsibilities.

Stakeholders, including NGOs, community leaders, and private sector actors, have a crucial role to play in addressing cultural biases and promoting gender equality. NGOs can collaborate with cooperatives to implement gender-sensitive practices, such as providing targeted training programs for women members or establishing grievance mechanisms to address discrimination. Community leaders can serve as advocates for women's empowerment, using their influence to challenge traditional norms and encourage inclusive practices (Anjorin, et al., 2024, Ebeh, et al., 2024, Koroma, et al., 2024, Udo, et al., 2024). The private sector can contribute by adopting gender-inclusive supply chain policies, sourcing products from women-led cooperatives, and investing in initiatives that support women entrepreneurs. In conclusion, fostering inclusive economies through the empowerment of women entrepreneurs in agriculture requires targeted recommendations for policymakers and stakeholders. Supporting cooperative development through

financial assistance and technical support is essential for enhancing the capacity and sustainability of cooperatives (Alex-Omiogbemi, et al., 2024, Dudu, Alao & Alonge, 2024, Kaggwa, et al., 2024). Promoting inclusive governance ensures that women have equal opportunities to participate in decision-making processes and leadership roles, challenging traditional norms and fostering equity. Addressing systemic challenges, such as infrastructure deficits and cultural biases, creates an enabling environment where cooperatives can thrive and contribute to economic growth. By implementing these recommendations, policymakers and stakeholders can unlock the full potential of cooperatives, empowering women entrepreneurs and driving progress toward inclusive and sustainable development (Ajayi, Toromade & Olagoke, 2024, Dudu, Alao & Alonge, 2024, Iwuanyanwu, et al., 2024).

### 2.6. Conclusion

Cooperatives play a transformative role in fostering inclusive economies by empowering women entrepreneurs in agriculture. Through collective action, resource pooling, and shared governance, cooperatives address critical barriers such as limited access to resources, inadequate market opportunities, and social and cultural constraints. By providing access to affordable credit, training programs, and market linkages, cooperatives enhance the economic independence and entrepreneurial capacities of women, enabling them to participate fully in agricultural value chains. Furthermore, cooperatives foster inclusivity by promoting women's representation in leadership and decision-making, challenging traditional norms and creating pathways for gender equity. The role of cooperatives extends beyond economic empowerment, contributing to social cohesion and fostering environments that prioritize shared growth and resilience.

The implications of empowering women through cooperatives are far-reaching, contributing significantly to sustainable development. Cooperatives are key drivers of rural development, facilitating investments in infrastructure, technology, and human capital that benefit entire communities. By enabling women to access resources and markets, cooperatives help reduce poverty and improve livelihoods, particularly in underserved and marginalized regions. The empowerment of women through cooperatives also promotes gender equity, addressing systemic inequalities and fostering more balanced and inclusive economies. These outcomes align with global sustainable development goals, such as reducing poverty, achieving gender equality, and promoting sustainable economic growth.

A concerted effort from policymakers, stakeholders, and communities is essential to realize the full potential of cooperatives in fostering inclusive economies. Investments in cooperative development, including financial support, technical assistance, and infrastructure improvements, are critical for enhancing their capacity and impact. Policymakers must implement gender-responsive policies and legal reforms to ensure women's equal participation and access to resources, while stakeholders, including NGOs and private sector actors, must actively support initiatives that empower women-led cooperatives. Public awareness campaigns and educational programs are also needed to challenge cultural biases and promote the value of women's contributions to economic and social development.

The call to action is clear: investing in the growth and sustainability of cooperatives is an investment in inclusive growth and equitable development. By supporting empower cooperatives, stakeholders can women entrepreneurs, strengthen rural economies, and drive progress toward a more just and sustainable future. The transformative power of cooperatives lies in their ability to unite individuals, foster collaboration, and create opportunities for shared prosperity. As global challenges such as inequality and climate change demand innovative solutions, cooperatives stand out as a vital tool for building resilient and inclusive economies that leave no one behind.

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