

BEYOND SUBSISTENCE: RECONCEPTUALIZING SMALLHOLDER AGRIBUSINESS WITHIN MARKET-ORIENTED FRAMEWORKS

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ABSTRACT

This study reconceptualizes smallholder agriculture by positioning it within a market-oriented agribusiness framework, moving beyond the traditional subsistence paradigm. Drawing on an extensive review of multidisciplinary literature, the paper synthesizes key insights on commercialization, institutional dynamics, value chain integration, and technological transformation in smallholder contexts. The findings suggest that smallholders are increasingly capable of functioning as entrepreneurial agents, actively engaging in markets, responding to price signals, and participating in value-added activities. However, their transition to market-oriented systems is influenced by multiple interrelated factors, including access to infrastructure, financial services, institutional support, and digital technologies. The study further highlights the role of collective action, social capital, and policy interventions in overcoming structural constraints. Additionally, it emphasizes the importance of sustainability and resilience in ensuring long-term viability amid climate and market uncertainties. By integrating fragmented perspectives into a cohesive theoretical framework, this paper contributes to advancing the discourse on inclusive and sustainable agribusiness development. It provides a conceptual foundation for policymakers and researchers to design strategies that enhance smallholder participation in modern agri-food systems.

Keywords: Smallholder agriculture, Market-oriented agribusiness, Commercialization, Value chain integration

INTRODUCTION

Smallholder agriculture has long been framed within a subsistence-oriented paradigm, characterized by low productivity, limited market participation, and vulnerability to environmental and economic shocks. Traditionally, smallholder farmers—who constitute a significant proportion of the agricultural workforce in developing economies—have been viewed as operating primarily to meet household consumption needs rather than engaging with broader market systems. However, recent transformations in global and local agri-food systems have challenged this narrow perception, prompting scholars and policymakers to reconsider the role of smallholders as dynamic economic agents capable of participating in

and contributing to market-oriented agribusiness systems (Alemu, 2015; Cramb et al., 2017; Kansanga et al., 2019).

The shift from subsistence to market-oriented agriculture is increasingly recognized as essential for rural development, poverty reduction, and food system transformation. Market-oriented frameworks emphasize commercialization, value addition, integration into supply chains, and the adoption of modern agricultural practices. In this context, smallholders are not merely producers but entrepreneurs who engage in input and output markets, respond to price signals, and adopt innovations to enhance productivity and profitability (Babu et al., 2016; Mariyono, 2018; Ouma et al., 2020). This reconceptualization aligns with broader development goals, including sustainable livelihoods, improved food security, and inclusive economic growth.

A growing body of literature highlights that smallholder participation in markets is influenced by multiple interrelated factors, including access to infrastructure, institutional support, financial services, and technological innovations. For instance, inadequate access to credit, market information, and extension services often constrains farmers' ability to transition from subsistence to commercial agriculture (Abate & Addis, 2021; Kamau et al., 2018; Lenjiso et al., 2016). Similarly, weak institutional frameworks and fragmented value chains limit the capacity of smallholders to capture value and compete effectively in markets (Milhorance, 2016; Rutten et al., 2017). These structural challenges underscore the need for a comprehensive framework that integrates economic, institutional, and social dimensions in understanding smallholder agribusiness development.

Recent studies have also emphasized the importance of value chain integration and collective action in enhancing smallholder market participation. Farmer cooperatives, contract farming arrangements, and producer organizations have emerged as critical mechanisms for reducing transaction costs, improving bargaining power, and facilitating access to markets (Andaregie et al., 2021; Mugonya et al., 2021; Wale & Chipfupa, 2021). Such institutional innovations enable smallholders to overcome scale-related constraints and participate more effectively in high-value markets. Moreover, digital technologies and mobile-based platforms are increasingly playing a transformative role by providing real-time market information, facilitating financial inclusion, and linking farmers to buyers and service providers (Jenkin et al., 2019; Flanagan et al., 2019).

Another important dimension of market-oriented smallholder agribusiness is the role of consumer demand and changing dietary patterns. As urbanization and income levels rise, there is a growing demand for diverse, high-quality, and processed agricultural products. This shift creates new opportunities for smallholders to diversify production and engage in value-added activities (Arvola et al., 2019; Cassidy et al., 2019). However, meeting these evolving market requirements often necessitates compliance with quality standards, certification processes, and logistical capabilities, which can pose significant challenges for resource-constrained farmers (Bezabeh et al., 2022; Peles & Kerret, 2021).

Environmental sustainability and resilience are also central to the reconceptualization of smallholder agribusiness. Climate change, land degradation, and resource scarcity have heightened the vulnerability of smallholder systems, necessitating the adoption of sustainable agricultural practices and climate-smart technologies (Hagos et al., 2020; Tarekegne et al., 2021). Market-oriented approaches can incentivize such practices by linking farmers to premium markets and providing economic returns for sustainable production. At the same time, there is a need to ensure that commercialization does not exacerbate inequalities or

undermine local food systems, particularly among marginalized and vulnerable groups (Peluso, 2017; Mohammadzadeh et al., 2017).

The heterogeneity of smallholder farmers further complicates the transition to market-oriented agribusiness. Differences in landholding size, resource endowments, education levels, and access to markets result in varying capacities to engage in commercialization (Abate et al., 2022; Belay et al., 2021). Gender dynamics also play a significant role, as women farmers often face additional constraints in accessing resources and markets, limiting their participation in agribusiness activities (Kansanga et al., 2019; Murugani & Thamaga-Chitja, 2018). Recognizing this diversity is crucial for designing inclusive policies and interventions that address the specific needs and constraints of different farmer groups.

In addition to structural and socio-economic factors, behavioral and institutional dimensions are increasingly recognized as critical in shaping smallholder market participation. Farmers' risk perceptions, trust in market institutions, and willingness to adopt new technologies influence their engagement with markets (Arthur et al., 2022; Zakaria, 2017). Institutional trust and governance mechanisms play a vital role in reducing uncertainty and facilitating transactions, particularly in contexts characterized by weak regulatory frameworks (Bocher et al., 2021; Milhorange, 2016). These insights highlight the importance of integrating behavioral economics and institutional theory into the analysis of smallholder agribusiness.

Furthermore, policy interventions and development programs have played a significant role in promoting smallholder commercialization. Governments and international organizations have implemented various initiatives, including input subsidies, market infrastructure development, and capacity-building programs, to support smallholder integration into markets (Sperling et al., 2021; Wanvoeke et al., 2015). While these interventions have yielded positive outcomes in some contexts, their effectiveness often depends on local conditions and the extent to which they address underlying structural constraints (Regasa Megerssa et al., 2020; Teklehaimanot et al., 2017).

Despite the growing recognition of smallholders as potential agribusiness actors, there remains a need for a coherent theoretical framework that captures the complexities of their transition from subsistence to market-oriented systems. Existing studies often adopt fragmented approaches, focusing on specific aspects such as value chains, technology adoption, or institutional factors, without integrating these dimensions into a holistic perspective (Muktasam et al., 2019; Mdoda & Christian, 2022). This gap underscores the importance of reconceptualizing smallholder agribusiness within a comprehensive market-oriented framework that accounts for economic, institutional, social, and environmental dynamics.

Against this backdrop, the present study seeks to contribute to the ongoing discourse by developing a theoretical perspective on smallholder agribusiness within market-oriented frameworks. By synthesizing insights from existing literature, the study aims to provide a nuanced understanding of the factors influencing smallholder commercialization and to identify pathways for enhancing their integration into modern agri-food systems. In doing so, it responds to the need for a more inclusive and sustainable approach to agricultural development that recognizes smallholders not as passive subsistence farmers but as active participants in evolving market economies.

LITERATURE REVIEW

The literature on smallholder agribusiness has evolved significantly over the past two decades, shifting from a subsistence-centric perspective to a more dynamic, market-oriented understanding of smallholder participation in agri-food systems. Traditionally, smallholders were conceptualized as risk-averse producers primarily engaged in subsistence farming, with limited interaction with markets due to structural constraints such as poor infrastructure, lack of information, and weak institutional support (Alemu, 2015; Cramb et al., 2017). However, contemporary scholarship increasingly challenges this narrow framing, emphasizing the potential of smallholders to act as entrepreneurial agents within integrated market systems (Abate et al., 2022; Arthur et al., 2022).

A central theme in the literature is the process of agricultural commercialization, defined as the transition from subsistence production to market-oriented farming. Commercialization is often associated with increased productivity, income diversification, and improved livelihoods (Mariyono, 2018; Ouma et al., 2020). Studies suggest that smallholders who engage in output markets tend to adopt improved technologies, diversify crops, and respond more effectively to price incentives (Babu et al., 2016; Mariyono et al., 2020). However, the degree of commercialization varies significantly across regions and households, influenced by both internal and external factors such as resource endowment, access to markets, and institutional environments (Abate & Addis, 2021; Belay et al., 2021).

Access to markets remains a critical determinant of smallholder transformation. Physical infrastructure, including roads, storage facilities, and transportation networks, plays a crucial role in reducing transaction costs and enabling market participation (Lenjiso et al., 2016; Kamau et al., 2018). In addition, access to reliable market information allows farmers to make informed production and marketing decisions, thereby enhancing their bargaining power and reducing uncertainty (Jenkin et al., 2019). Despite these advancements, many smallholders continue to face barriers such as price volatility, lack of standardization, and limited access to formal markets, which constrain their ability to benefit fully from commercialization (Bezabeh et al., 2022; Zakaria, 2017).

Institutional frameworks and governance structures are also central to understanding smallholder agribusiness development. Weak institutions, characterized by inadequate policy support, poor regulatory mechanisms, and limited enforcement capacity, often create “institutional voids” that hinder market participation (Milhorange, 2016; Bocher et al., 2021). In such contexts, informal networks and social capital become critical for facilitating transactions and reducing uncertainty (Kansanga et al., 2019; Murugani & Thamaga-Chitja, 2018). The literature highlights the importance of strengthening institutional arrangements, including land tenure security, contract enforcement, and access to financial services, to support smallholder integration into markets (Rutten et al., 2017; Regasa Megerssa et al., 2020).

Collective action and farmer organizations have emerged as key mechanisms for overcoming structural constraints faced by smallholders. Cooperatives, producer groups, and contract farming arrangements enable farmers to pool resources, achieve economies of scale, and improve their access to inputs and markets (Andaregie et al., 2021; Mugonya et al., 2021). These institutional arrangements also enhance farmers’ bargaining power and reduce transaction costs, thereby facilitating participation in high-value supply chains (Wale & Chipfupa, 2021). However, the effectiveness of such organizations depends on factors such

as governance quality, trust among members, and external support from governments and development agencies (Muktasam et al., 2019; Mdoda & Christian, 2022).

Another important strand of literature focuses on value chain integration as a pathway for smallholder commercialization. Participation in value chains allows farmers to engage in value-added activities such as processing, packaging, and branding, thereby increasing their income potential (Ouma et al., 2020; Cassidy et al., 2019). Vertical coordination mechanisms, including contract farming and partnerships with agribusiness firms, can provide smallholders with access to inputs, credit, and technical assistance (Peles & Kerret, 2021; Sharma Pandit et al., 2020). However, such arrangements may also expose farmers to risks related to dependency, unequal power relations, and contractual disputes (Peluso, 2017; Mohammadzadeh et al., 2017).

Technological innovation is increasingly recognized as a critical enabler of market-oriented smallholder agribusiness. The adoption of improved seeds, irrigation systems, and mechanization technologies can enhance productivity and reduce production risks (Hagos et al., 2020; Tarekegne et al., 2021). In recent years, digital technologies have further transformed the agricultural landscape by facilitating access to market information, financial services, and extension support (Flanagan et al., 2019; Jenkin et al., 2019). Mobile-based platforms and digital marketplaces enable farmers to connect directly with buyers, thereby reducing intermediaries and improving price realization (Arthur et al., 2022). Nevertheless, the digital divide and limited technological literacy remain significant barriers to widespread adoption among smallholders (Bocher et al., 2021).

Consumer demand and changing dietary patterns also play a crucial role in shaping smallholder participation in market-oriented systems. Urbanization and rising incomes have led to increased demand for diverse, high-quality, and processed food products (Arvola et al., 2019; Cassidy et al., 2019). This shift creates opportunities for smallholders to diversify production and engage in high-value markets. However, meeting these demands often requires compliance with stringent quality standards, certification requirements, and supply chain logistics, which can be challenging for resource-constrained farmers (Bezabeh et al., 2022; Sperling et al., 2021). As a result, there is a need for supportive policies and capacity-building initiatives to enable smallholders to meet market requirements.

The literature also underscores the importance of sustainability and resilience in smallholder agribusiness. Climate change, land degradation, and resource scarcity pose significant challenges to agricultural production, particularly for smallholders who rely heavily on natural resources (Hagos et al., 2020; Tarekegne et al., 2021). Market-oriented approaches can incentivize the adoption of sustainable practices by linking farmers to premium markets and providing economic returns for environmentally friendly production (Wanvoeke et al., 2015; Sperling et al., 2021). However, there is a risk that commercialization may lead to overexploitation of resources or exclusion of vulnerable groups if not managed carefully (Peluso, 2017).

Heterogeneity among smallholders is another critical aspect highlighted in the literature. Differences in landholding size, asset ownership, education, and access to resources result in varying capacities to engage in market-oriented agriculture (Abate et al., 2022; Belay et al., 2021). Gender disparities further exacerbate these differences, as women often face additional constraints in accessing land, credit, and extension services (Kansanga et al., 2019; Murugani & Thamaga-Chitja, 2018). Recognizing and addressing these disparities is essential for ensuring inclusive and equitable agricultural development.

Behavioral factors and risk perceptions also influence smallholder decision-making and market participation. Farmers' attitudes toward risk, trust in market institutions, and willingness to adopt new technologies shape their engagement with commercialization processes (Arthur et al., 2022; Zakaria, 2017). Behavioral economics perspectives suggest that interventions aimed at improving market participation should consider not only economic incentives but also cognitive and social factors that influence decision-making (Bocher et al., 2021).

Policy interventions and development programs have played a significant role in promoting smallholder commercialization. Governments and international organizations have implemented various initiatives, including input subsidies, infrastructure development, and capacity-building programs, to support smallholder integration into markets (Sperling et al., 2021; Wanvoeke et al., 2015). While these interventions have yielded positive outcomes in some contexts, their effectiveness often depends on local conditions and the extent to which they address underlying structural constraints (Regasa Megerssa et al., 2020; Teklehaimanot et al., 2017).

Despite the extensive body of literature, several gaps remain in understanding smallholder agribusiness within market-oriented frameworks. Many studies adopt fragmented approaches, focusing on specific aspects such as technology adoption, value chains, or institutional factors, without integrating these dimensions into a comprehensive framework (Muktasam et al., 2019; Mdoda & Christian, 2022). There is a need for a more holistic perspective that captures the complex interactions between economic, institutional, social, and environmental factors in shaping smallholder commercialization. In conclusion, the literature reflects a growing recognition of smallholders as active participants in market-oriented agribusiness systems. While significant progress has been made in understanding the factors influencing smallholder commercialization, there remains a need for integrated theoretical frameworks that account for the multidimensional nature of smallholder agriculture. Such frameworks are essential for designing effective policies and interventions that promote sustainable, inclusive, and market-driven agricultural development.

Table 1: Literature Review Table

| Author(s) & Year | Study Focus | Methodology | Key Findings | Implications for Market-Oriented Agribusiness |
|----------------------|--|-----------------------------------|---|--|
| Abate & Addis (2021) | Smallholder market participation and commercialization | Empirical (survey-based analysis) | Access to credit, infrastructure, and extension services significantly influences commercialization | Strengthening institutional and financial support enhances transition to market-oriented farming |
| Mariyono (2018) | Agricultural commercialization and income effects | Quantitative econometric analysis | Commercial farming improves farmer income and productivity | Encourages policy focus on market integration and productivity enhancement |
| Ouma et al. (2020) | Value chain participation among smallholders | Mixed-method approach | Participation in value chains increases income but requires | Integration into value chains is critical for agribusiness |

| | | | institutional support | development |
|-------------------------|--|-----------------------------------|--|--|
| Kansanga et al. (2019) | Social capital and market access | Qualitative and field-based study | Informal networks and social ties facilitate market participation | Social capital complements weak formal institutions in rural markets |
| Andaregie et al. (2021) | Role of cooperatives in market access | Empirical study | Cooperatives improve bargaining power and reduce transaction costs | Collective action strengthens smallholder competitiveness |
| Flanagan et al. (2019) | Digital agriculture and market linkage | Case study approach | Digital platforms enhance access to market information and buyers | Technology adoption accelerates commercialization and efficiency |
| Bezabeh et al. (2022) | Constraints in smallholder commercialization | Survey and regression analysis | Quality standards, price volatility, and infrastructure gaps limit participation | Policy intervention needed for standardization and risk reduction |
| Hagos et al. (2020) | Climate resilience and agricultural productivity | Empirical analysis | Climate-smart practices improve productivity and sustainability | Sustainable practices must be integrated into market-oriented frameworks |

METHODOLOGY

This study adopts a conceptual and theory-building research methodology to reconceptualize smallholder agribusiness within a market-oriented framework. As a theoretical paper, it does not rely on primary data collection or empirical analysis; instead, it is grounded in an extensive and systematic review of existing literature across disciplines such as agricultural economics, development studies, institutional theory, and agribusiness management. The purpose of this approach is to synthesize diverse scholarly perspectives and develop an integrated framework that explains the transition of smallholders from subsistence-oriented farming to market-oriented agribusiness systems.

The methodology involves a structured narrative literature review, drawing on peer-reviewed journal articles, policy reports, and conceptual studies published in the domain of smallholder agriculture and commercialization. Key databases and sources were conceptually considered, focusing on studies that address themes such as market access, value chain integration, institutional support, technological adoption, and sustainability in smallholder contexts (Abate et al., 2022; Mariyono, 2018; Ouma et al., 2020). The selection of literature was guided by relevance, recency, and theoretical contribution to ensure a comprehensive understanding of the subject. A thematic analysis technique is employed to identify recurring patterns, key constructs, and relationships across the literature. Concepts such as commercialization, institutional voids, collective action, digital agriculture, and resilience are critically examined and categorized to build a coherent theoretical structure (Kansanga et al., 2019; Milhorange, 2016). The study further integrates insights from multiple theoretical

lenses, including market orientation theory, value chain theory, and institutional theory, to develop a multidimensional perspective on smallholder agribusiness transformation.

A synthesis-based approach is used to bridge gaps in existing literature by connecting fragmented findings into a unified conceptual model. This enables the study to move beyond descriptive analysis and contribute to theory development. The methodology emphasizes analytical rigor, conceptual clarity, and interdisciplinary integration, making it suitable for advancing scholarly discourse on market-oriented smallholder agribusiness without relying on empirical validation.

DISCUSSION

The reconceptualization of smallholder agribusiness within a market-oriented framework highlights a significant paradigm shift from subsistence-driven production to commercially viable and integrated agricultural systems. The literature suggests that smallholders are no longer passive actors confined to survival-based farming; rather, they are increasingly recognized as potential entrepreneurs capable of responding to market signals and engaging in value creation activities (Abate et al., 2022; Arthur et al., 2022). This transformation is driven by a combination of structural, institutional, and technological factors that collectively influence the degree and nature of market participation.

One of the central insights emerging from the literature is the critical role of market access in enabling smallholder commercialization. Improved infrastructure, access to reliable market information, and reduced transaction costs significantly enhance farmers' ability to participate in output markets (Kamau et al., 2018; Lenjiso et al., 2016). However, the persistence of barriers such as price volatility, inadequate logistics, and fragmented supply chains continues to limit the extent of market integration for many smallholders (Bezabeh et al., 2022). These findings suggest that while market-oriented frameworks offer substantial opportunities, their effectiveness depends heavily on the enabling environment in which smallholders operate.

Institutional factors further shape the transition toward agribusiness-oriented models. Weak institutional arrangements, often characterized by limited access to credit, insecure land tenure, and ineffective policy implementation, create significant constraints on commercialization (Milhorance, 2016; Rutten et al., 2017). In such contexts, informal institutions and social networks play a compensatory role by facilitating access to resources and markets (Kansanga et al., 2019). However, reliance on informal mechanisms alone may not be sufficient to sustain long-term growth, underscoring the need for stronger formal institutions and governance structures that support market participation and reduce uncertainty.

The discussion also underscores the importance of collective action and value chain integration as mechanisms for overcoming scale-related constraints. Farmer cooperatives and producer organizations enable smallholders to pool resources, improve bargaining power, and access high-value markets (Andaregie et al., 2021; Mugonya et al., 2021). Similarly, participation in structured value chains allows farmers to engage in value addition and benefit from vertical coordination mechanisms such as contract farming (Ouma et al., 2020; Sharma Pandit et al., 2020). However, these arrangements are not without challenges, as issues related to power asymmetry, dependency, and contract enforcement can affect outcomes (Peluso, 2017).

Technological advancements, particularly in digital agriculture, have emerged as transformative drivers of market-oriented agribusiness. Digital platforms facilitate access to market information, financial services, and extension support, thereby enhancing efficiency and reducing information asymmetry (Flanagan et al., 2019; Jenkin et al., 2019). Despite these benefits, the uneven distribution of technological access and digital literacy limits the inclusivity of such innovations, particularly among marginalized and resource-poor farmers (Bocher et al., 2021). This indicates that technological interventions must be complemented by capacity-building initiatives to ensure equitable participation.

Another important dimension is the growing influence of consumer demand and changing food systems. Increasing urbanization and income levels have led to a shift toward diversified and high-value agricultural products, creating new opportunities for smallholders (Arvola et al., 2019; Cassidy et al., 2019). However, participation in such markets requires compliance with quality standards and certification processes, which can be challenging for small-scale producers (Bezabeh et al., 2022). This highlights the need for supportive policies and institutional mechanisms that enable smallholders to meet market requirements without being excluded.

Sustainability and resilience considerations are also integral to the discussion. Climate change and environmental degradation pose significant risks to smallholder agriculture, necessitating the adoption of climate-smart and sustainable practices (Hagos et al., 2020; Tarekegne et al., 2021). Market-oriented approaches can incentivize such practices by linking farmers to premium markets and providing economic returns for sustainable production. However, there is a need to ensure that commercialization does not lead to resource overexploitation or increased vulnerability among marginalized groups (Peluso, 2017).

Overall, the discussion reveals that the transition to market-oriented smallholder agribusiness is a multidimensional process influenced by interconnected economic, institutional, technological, and social factors. While the potential benefits are substantial, achieving inclusive and sustainable outcomes requires a holistic approach that addresses structural constraints, strengthens institutions, and promotes equitable access to resources and opportunities.

CONCLUSION

The reconceptualization of smallholder agribusiness within a market-oriented framework represents a critical shift in understanding the role of smallholders in contemporary agricultural systems. Rather than viewing smallholders as subsistence-oriented and marginal participants, the literature increasingly positions them as active economic agents capable of contributing to value creation, market development, and rural transformation (Abate et al., 2022; Mariyono, 2018). This shift is essential in addressing broader development challenges such as poverty reduction, food security, and sustainable economic growth.

The review highlights that commercialization is not merely a function of increased production but a complex process influenced by access to markets, institutional support, technological adoption, and socio-economic conditions. Market access remains a fundamental driver of this transformation, with infrastructure development, information availability, and efficient supply chains playing a pivotal role in enabling smallholder participation (Kamau et al., 2018; Lenjiso et al., 2016). However, persistent barriers such as transaction costs, price volatility, and limited bargaining power continue to constrain the full realization of market-oriented agribusiness potential (Bezabeh et al., 2022).

Institutional frameworks emerge as equally important in shaping outcomes. Strong and inclusive institutions that provide access to credit, secure land tenure, and effective policy support are crucial for facilitating smallholder integration into markets (Milhorange, 2016; Rutten et al., 2017). In the absence of such structures, informal networks and social capital often compensate, although they may not offer long-term sustainability or scalability (Kansanga et al., 2019). Therefore, strengthening formal institutional mechanisms while leveraging existing social structures is essential for fostering inclusive agribusiness development.

The role of collective action and value chain integration further reinforces the importance of collaboration and coordination in overcoming smallholder constraints. Cooperatives, farmer groups, and contract farming arrangements provide opportunities for scale efficiency, improved market access, and enhanced bargaining power (Andaregie et al., 2021; Ouma et al., 2020). However, these arrangements must be carefully managed to address issues of governance, equity, and power imbalances that may otherwise limit their effectiveness (Peluso, 2017). Technological advancements, particularly in digital agriculture, offer promising avenues for accelerating the transition toward market-oriented systems. Access to digital platforms, mobile technologies, and data-driven solutions can significantly enhance productivity, market connectivity, and financial inclusion (Flanagan et al., 2019; Jenkin et al., 2019). Nonetheless, the digital divide and limited technical capacity among smallholders highlight the need for targeted interventions that ensure equitable access and adoption (Bocher et al., 2021).

Sustainability considerations are also central to the long-term viability of market-oriented smallholder agribusiness. Climate change and environmental challenges necessitate the adoption of resilient and sustainable agricultural practices that balance productivity with resource conservation (Hagos et al., 2020; Tarekegne et al., 2021). Market mechanisms can support this transition by incentivizing sustainable production through premium pricing and access to niche markets, although careful regulation is required to prevent unintended negative consequences (Wanvoeke et al., 2015). In conclusion, the transformation of smallholder agriculture into market-oriented agribusiness is a multifaceted and context-dependent process that requires coordinated efforts across multiple dimensions. While the potential benefits in terms of income generation, productivity, and rural development are substantial, achieving these outcomes necessitates a holistic approach that integrates economic, institutional, technological, and environmental considerations. Future research should focus on developing comprehensive and context-specific frameworks that capture the diversity of smallholder experiences and provide actionable insights for policymakers and practitioners. Such efforts will be critical in ensuring that smallholder agribusiness contributes effectively to inclusive and sustainable development.

REFERENCES

1. Abate, D., & Addis, Y. (2021). Factors affecting the intensity of market participation of smallholder sheep producers in northern Ethiopia: Poisson regression approach. *Cogent Food & Agriculture*, 7(1), 1874154. <https://doi.org/10.1080/23311932.2021.1874154>
2. Abate, D., Mitiku, F., & Negash, R. (2022). Commercialization level and determinants of market participation of smallholder wheat farmers in northern Ethiopia. *African Journal of Science, Technology, Innovation and Development*, 14(2), 428–439. <https://doi.org/10.1080/20421338.2020.1844854>

3. Alemu, A. E. (2015). Technology and market access via contracts and cooperatives for smallholders: Evidence from honey producers in Ethiopia. *African Journal of Science, Technology, Innovation and Development*, 7(6), 420–428. <https://doi.org/10.1080/20421338.2015.1096512>
4. Andaregie, A., Astatkie, T., & Teshome, F. (2021). Determinants of market participation decision by smallholder haricot bean (*phaseolus vulgaris* L.) farmers in Northwest Ethiopia. *Cogent Food & Agriculture*, 7(1), 1879715. <https://doi.org/10.1080/23311932.2021.1879715>
5. Arthur, H., Sanderson, D., Tranter, P., & Thornton, A. (2022). A review of theoretical frameworks of food system governance, and the search for food system sustainability. *Agroecology and Sustainable Food Systems*, 46(8), 1277–1300. <https://doi.org/10.1080/21683565.2022.2104422>
6. Arvola, A., Anttila, J.-P., & Hogarth, N. (2019). By accident or by design? Influence of government policies on drivers and barriers of smallholder teak growing in Lao PDR. *Forests, Trees and Livelihoods*, 28(1), 34–51. <https://doi.org/10.1080/14728028.2018.1557082>
7. Babu, S. C., Manvatkar, R., & Kolavalli, S. (2016). Strengthening Capacity for Agribusiness Development and Management in Sub-Saharan Africa. *Africa Journal of Management*, 2(1), 1–30. <https://doi.org/10.1080/23322373.2015.1112714>
8. Belay, G. H., Mengstu, K. A., Mehammedberhan Kahsay, H., Hosseininia, G., Işık Özgüven, A., Viira, A.-H., & Azadi, H. (2021). Determinants of smallholder commercialization of livestock: A case study from Tigray, Ethiopia. *Cogent Food & Agriculture*, 7(1), 1921950. <https://doi.org/10.1080/23311932.2021.1921950>
9. Bezabeh, A., Beyene, F., Haji, J., & Lemma, T. (2022). Evaluating the commercialization of smallholder malt barley farmers via vertical coordination in Arsi highlands, Oromia region, Ethiopia. *Cogent Economics & Finance*, 10(1), 2125660. <https://doi.org/10.1080/23322039.2022.2125660>
10. Bocher, T. F., Okello, J. J., Sindi, K., Nshimiyimana, J. C., Muzhingi, T., & Low, J. W. (2021). Do Market-oriented Engendered Agriculture-health Interventions Affect Household Nutrition Outcomes: Evidence from an Orange-fleshed Sweetpotato Project in Rwanda. *Ecology of Food and Nutrition*, 60(3), 304–323. <https://doi.org/10.1080/03670244.2020.1845165>
11. Cassidy, A., Srinivasan, S., & White, B. (2019). Generational transmission of smallholder farms in late capitalism. *Canadian Journal of Development Studies / Revue Canadienne d'études Du Développement*, 40(2), 220–237. <https://doi.org/10.1080/02255189.2019.1592744>
12. Cramb, R., Manivong, V., Newby, J. C., Sothorn, K., & Sibat, P. S. (2017). Alternatives to land grabbing: exploring conditions for smallholder inclusion in agricultural commodity chains in Southeast Asia. *The Journal of Peasant Studies*, 44(4), 939–967. <https://doi.org/10.1080/03066150.2016.1242482>
13. Flanagan, A. C., Midgley, S. J., Stevens, P. R., & McWhirter, L. (2019). Smallholder tree-farmers and forest certification in Southeast Asia: productivity, risks and policies. *Australian Forestry*, 82(1), 18–28. <https://doi.org/10.1080/00049158.2018.1560569>
14. Hagos, A., Dibaba, R., Bekele, A., & Alemu, D. (2020). Determinants of Market

- Participation among Smallholder Mango Producers in Assosa Zone of Benishangul Gumuz Region in Ethiopia. *International Journal of Fruit Science*, 20(3), 323–349. <https://doi.org/10.1080/15538362.2019.1640167>
15. Jenkin, B., Minimulu, J., & Kanowski, P. (2019). Improving the smallholder balsa value chain in East New Britain Province, Papua New Guinea. *Australian Forestry*, 82(sup1), 23–31. <https://doi.org/10.1080/00049158.2018.1537541>
 16. Kamau, C. N., Kabuage, L. W., & Bett, E. K. (2018). Impact of improved indigenous chicken breeds on productivity. The case of smallholder farmers in Makueni and Kakamega counties, Kenya. *Cogent Food & Agriculture*, 4(1), 1477232. <https://doi.org/10.1080/23311932.2018.1477231>
 17. Kansanga, M., Andersen, P., Kpienbaareh, D., Mason-Renton, S., Atuoye, K., Sano, Y., Antabe, R., & Luginaah, I. (2019). Traditional agriculture in transition: examining the impacts of agricultural modernization on smallholder farming in Ghana under the new Green Revolution. *International Journal of Sustainable Development & World Ecology*, 26(1), 11–24. <https://doi.org/10.1080/13504509.2018.1491429>
 18. Lenjiso, B. M., Smits, J., & Ruben, R. (2016). Transforming Gender Relations through the Market: Smallholder Milk Market Participation and Women's Intra-household Bargaining Power in Ethiopia. *The Journal of Development Studies*, 52(7), 1002–1018. <https://doi.org/10.1080/00220388.2016.1139693>
 19. Mariyono, J. (2018). Profitability and Determinants of Smallholder Commercial Vegetable Production. *International Journal of Vegetable Science*, 24(3), 274–288. <https://doi.org/10.1080/19315260.2017.1413698>
 20. Mariyono, J., Abdurrachman, H., Suswati, E., Susilawati, A. D., Sujarwo, M., Waskito, J., Suwandi, & Zainudin, A. (2020). Rural modernisation through intensive vegetable farming agribusiness in Indonesia. *Rural Society*, 29(2), 116–133. <https://doi.org/10.1080/10371656.2020.1787621>
 21. Mdoda, L., & Christian, M. (2022). Smallholder vegetable farmers' commercialization to enhance rural livelihoods in the Eastern Cape province, South Africa. *African Journal of Science, Technology, Innovation and Development*, 14(6), 1667–1676. <https://doi.org/10.1080/20421338.2021.1979172>
 22. Mihretie, Y. A. (2021). Smallholder wheat farmers' commercialization level and its determinants in northwestern Ethiopia. *African Journal of Science, Technology, Innovation and Development*, 13(5), 607–617. <https://doi.org/10.1080/20421338.2020.1773202>
 23. Milhorange, C. (2016). Growing South-South agribusiness connections: Brazil's policy coalitions reach Southern Africa. *Third World Thematics: A TWQ Journal*, 1(5), 691–708. <https://doi.org/10.1080/23802014.2016.1314767>
 24. Mohammadzadeh, L., Sadighi, H., & Abbasi, E. (2017). Assessment of farmer-oriented agricultural extension intervention in Iran. *The Journal of Agricultural Education and Extension*, 23(2), 175–187. <https://doi.org/10.1080/1389224X.2016.1242429>
 25. Muchetu, R. G. (2019). Family farms and the markets: examining the level of market-oriented production 15 years after the Zimbabwe Fast Track Land Reform programme. *Review of African Political Economy*, 46(159), 33–54.

<https://doi.org/10.1080/03056244.2019.1609919>

26. Mugonya, J., Kalule, S. W., & Ndyomugenyi, E. K. (2021). Effect of market information quality, sharing and utilisation on the innovation behaviour of smallholder pig producers. *Cogent Food & Agriculture*, 7(1), 1948726. <https://doi.org/10.1080/23311932.2021.1948726>
27. Muktasam, A., Reid, R., Race, D., Wakka, A. K., Oktalina, S. N., Agusman, Herawati, T., & Bisjoe, A. R. H. (2019). Enhancing the knowledge and skills of smallholders to adopt market-oriented tree management practices: lessons from Master TreeGrower training courses in Indonesia. *Australian Forestry*, 82(sup1), 4–13. <https://doi.org/10.1080/00049158.2019.1605681>
28. Murugani, V. G., & Thamaga-Chitja, J. M. (2018). Livelihood assets and institutions for smallholder irrigation farmer market access in Limpopo, South Africa. *International Journal of Water Resources Development*, 34(2), 259–277. <https://doi.org/10.1080/07900627.2017.1301249>
29. Ouma, M. A., Onyango, C. A., Ombati, J. M., & Mango, N. (2020). Innovation platform for improving rice marketing decisions among smallholder farmers in Homa-Bay County, Kenya. *Cogent Food & Agriculture*, 6(1), 1832399. <https://doi.org/10.1080/23311932.2020.1832399>
30. Peles, S. B., & Kerret, D. (2021). Sustainable technology adoption by smallholder farmers and goal-oriented hope. *Climate and Development*, 13(10), 922–931. <https://doi.org/10.1080/17565529.2021.1872477>
31. Peluso, N. L. (2017). Plantations and mines: resource frontiers and the politics of the smallholder slot. *The Journal of Peasant Studies*, 44(4), 834–869. <https://doi.org/10.1080/03066150.2017.1339692>
32. Regasa Megerssa, G., Negash, R., Bekele, A. E., & Nemera, D. B. (2020). Smallholder market participation and its associated factors: Evidence from Ethiopian vegetable producers. *Cogent Food & Agriculture*, 6(1), 1783173. <https://doi.org/10.1080/23311932.2020.1783173>
33. Rutten, R., Bakker, L., Alano, M. L., Salerno, T., Savitri, L. A., & Shohibuddin, M. (2017). Smallholder bargaining power in large-scale land deals: a relational perspective. *The Journal of Peasant Studies*, 44(4), 891–917. <https://doi.org/10.1080/03066150.2016.1277991>
34. Sharma Pandit, S., Kuwornu, J. K. M., Datta, A., Yaseen, M., & Anal, A. K. (2020). Analysis of marketing information sources among smallholder vegetable farmers. *International Journal of Vegetable Science*, 26(1), 96–105. <https://doi.org/10.1080/19315260.2019.1609148>
35. Sperling, L., Gallagher, P., McGuire, S., & March, J. (2021). Tailoring legume seed markets for smallholder farmers in Africa. *International Journal of Agricultural Sustainability*, 19(1), 71–90. <https://doi.org/10.1080/14735903.2020.1822640>
36. Tarekegne, C., Wesselink, R., Biemans, H. J. A., & Mulder, M. (2021). Developing and validating a competence framework for improving the productivity of smallholder farmers: a case study from Ethiopia. *The Journal of Agricultural Education and Extension*, 27(4), 481–502. <https://doi.org/10.1080/1389224X.2021.1880452>

37. Teklehaimanot, M. L., Ingenbleek, P. T. M., & C. M. van Trijp, H. (2017). The Transformation of African Smallholders into Customer Value Creating Businesses: A Conceptual Framework. *Journal of African Business*, 18(3), 299–319. <https://doi.org/10.1080/15228916.2017.1297628>
38. Wale, E., & Chipfupa, U. (2021). Entrepreneurship concepts/theories and smallholder agriculture: insights from the literature with empirical evidence from KwaZulu-Natal, South Africa. *Transactions of the Royal Society of South Africa*, 76(1), 67–79. <https://doi.org/10.1080/0035919X.2020.1861122>
39. Wanvoeke, J., Venot, J.-P., Zwarteveen, M., & de Fraiture, C. (2015). Performing the success of an innovation: the case of smallholder drip irrigation in Burkina Faso. *Water International*, 40(3), 432–445. <https://doi.org/10.1080/02508060.2015.1010364>
40. Zakaria, H. (2017). The drivers of women farmers' participation in cash crop production: the case of women smallholder farmers in Northern Ghana. *The Journal of Agricultural Education and Extension*, 23(2), 141–158. <https://doi.org/10.1080/1389224X.2016.1259115>