

Review of South Africa's Small-scale Farming Entrepreneurial Constraints and Opportunities: A Rural Perspective

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Review Article

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ABSTRACT

The small-scale farming subsector is now seen as a critical player in the rural development drive and sustainable inclusive rural economic growth. This has found expression in the Agenda 2063, Zero Hunger Challenge and the National Development Plan 2030 for South Africa. However, for the small-scale farmers to play their role it is imperative that there is a clear understanding of the constraints they still face. Most previous studies have focused on assessing marketing, access to finance and capital and related production inhibiting constraints but few have focused on agronomic entrepreneurial constrictions. This study reviews agronomic entrepreneurial constrictions faced by small-scale farmers in South Africa. Agronomic constraints include lack of access to credit, strenuous climate change, lack of irrigation water among others have been discovered. Water constraints is however, regarded as a major constraint in rural areas and empirical studies have shown that the impacts can be very severe. Empirical interaction on a variety of constraints in rural agriculture revealed generalised evidence which, however, created loopholes in order to quantify the gist of the matter. Thus, the premise of the study is to clearly single out entrepreneurial constraints faced by small-scale farmers in Vhembe District of South Africa.

BACKGROUND

Small-scale farming (Small-scale commercial farmers producing from small pieces of land and mainly for the market ^[1,2]) has been pinpointed to be a crucial avenue for inclusive economic development for rural communities ^[3-5]. This found expression in the Zero Hunger Challenge, Agenda 2063, SDGs and National Development Plan 2030. The government has committed itself to fund small-scale farming through a number of programs. The Department of Agriculture, Forestry and Fishery (DAFF) through Micro Agricultural Financial Institutions of South Africa (MAFISA) injected over R10 billion to finance small-scale farming in rural areas across South Africa ever since 2013 ^[2,6]. Furthermore, South Africa committed to investing at most 10% of its income into the agriculture sector after the Malabo declaration in 2014. Evidently, small-scale farming has been identified as a comprehensive approach to boost food security and poverty reduction in rural areas. The Correspondingly, the General Household Survey (GHS) conducted by Statistics South Africa in 2014 revealed that the number of small-scale farmers in rural areas has decreased by 6.1% from 2,880,000 in 2011 to 2,330,000 in 2016. The decrease in the number of small-scale farmers was mainly due to the severe drought experienced in 2014/15 which hindered production extensively.

Similarly, several agronomic constrictions such as lack of farming entrepreneurial skills, drastic climate change, drought, lack of access to capital and water shortages are central constraints identified ^[7-9]. Despite the government's effort to improve rural farming through development programs such as CASP, MAFISA and LIMA, there remains a big challenge in rural farming which is hindering significant growth by small-scale farming subsector. As mentioned by DAFF ^[2], the government is providing much-needed support in order to eradicate the aforementioned challenges to improve rural farming, however, small-scale farmers lack the intellectual capacity to use the available resources ^[10,11].

Undeniably, much ground has been covered in order to lessen farming constraints mainly in rural areas. Most farmers have been receiving different support ranging from financial supports, inputs and farming training through DAFF regional offices but still many are failing to convert such assistance into productive farming ^[12]. Considered as such, entrepreneurial constrictions and opportunities form the basis of this review paper.

Entrepreneurship perceptions and rural farming

According to McElwee ^[13], while most farmers have received government support to transform the rural agriculture gamut, entrepreneurial skills associated with running productive farming are scarce among the small-scale farmers. Entrepreneurial skills among rural farming have not been widely assessed and profiled to determine their importance among small-scale farmers. This has led to the need to investigate small-scale farming entrepreneurship ^[13-15]. Thus, the farming entrepreneurship as explained by McElwee ^[13] and Menozzi, et al. are linked to improved small-scale farming activities and farming outcome. Furthermore, successful entrepreneurship requires the farmer to possess a vision for growth, good interpersonal skills, strong marketing strategies, sound management skills and sharp cost-benefit consciousness. These entrepreneurship insights are briefly explained in the following sub-sections.

Vision for agronomic growth: For the last five years, several ecological traits appear to be responsible for low yield in arid regions. According to Fahad et al., ecological traits such as high temperatures, pollen transfer limitations and indeterminate growth habits have been identified as some of the leading factors for deterred agronomic growth. Thus, in every productive farming enterprise, it is essential to have agronomic growth prospects. Agronomic growth prospects are considered good planning in areas such as farm budgeting, soil tests, future market trends and water management. Good planning gives a farmer a clear blueprint on how to strategically plan for profitable farming in the future. As stated by Tananyaniwa, many small-scale farmers are not able to clearly realize future environment traits, market trends and change in seasons which are important ingenuities for successful farming. Thus, having the ability to clearly analyze the aforementioned farming traits can produce far-reaching results for farming growth in rural areas. Small-scale farmers are facing numerous challenges but their success is eminent for sustainable development and food security. Agriculture as a leading sector in rural areas has the potential to create employment, improve food security and economic growth in rural areas. However, these constriction challenges are affecting probable agronomic growth through small-scale farming. In this regard, farmers should have skills on how to realize the meaningful vision for growth in order to enhance prolific farming both in the short run and long run.

Farming interpersonal skills: Farming interpersonal skills such as financial management, water and waste management, cross breeding, book keeping and marketing skills are a requisite for productive small-scale farming. Identifying farming interpersonal skills can be attributed to fecund farming. For instance, Abiwon and Chait describes interpersonal skills as the internal ability to deal with external farming challenges such as a drastic change in seasons, lack of water on a fully grown tobacco plantation, diseases on plants or long days standing on the farm. Thus, farmers with interpersonal skills are able to produce better than those who lack interpersonal skills. Interpersonal skills permit one to react differently to complex farming challenges such as long hours of continuous work. Therefore, farming interpersonal skills are essential for productive farming mainly for small-scale farmers who have to spend long hours monitoring production. Ultimately, Chait identified a healthy body, personal organizational skills, one-self management skills, persuasive abilities, communication skills and personal knowledge of farming and the environment to be essential for productive agronomic progress. Thus, farmers are fortified to have these skills in order to run a productive enterprise.

Marketing skills and strategies: Marketing skills are measured as the ability to communicate processed information to the external environment for productive transactions in business. Furthermore, Alberta describes farm marketing skills as the ability to communicate, deliver and exchange offerings that have significant value to farm yield customers. Accordingly, strong marketing skills can lead to productive farming. Marketing skills provide a link between rural food producers (farmers) and consumers (food companies, retail shops and households). Hence, strong agronomic marketing skills are essential pieces of information that all farm direct marketing agricultural products and services. These pieces such as business cards, price lists, product information sheets, websites and social media are central elements for strong agronomic marketing skills. As for agronomic marketing strategies, Alberta suggests that consumers want to know where the food they consume come from, how it is grown and the people who produce it. Thus, strong agronomic marketing strategies involve the involvement of customers in decision making. Moreso, the use of the latest technology is embedded as a congruent method for productive agronomic marketing strategies. Thus, the use of the latest technology can produce far-reaching results in the new agronomic epoch. Therefore, there is a need to redefine categories and concepts around which innovation and agricultural policies are built, as those currently in use provide only a partial representation of reality. Innovation paradigms underpinning technological development and public policies design will have a direct impact on decisions regarding which agricultural models will ultimately be supported.

Farm management skills: Farm management skills entail knowledge of food production linked to customer demands, food standards and sustainability. Skills such as productive command of basic facts, relevant professional knowledge, analytical, problem-solving and decision makings skills are considered critical for fruitful farming. Thus, farmers should have sound farm management skills for sustainable food production. Eugene also states that organizational and time-management skills are fundamental aspects all farmers should have on a daily basis. Furthermore, Ortolani et al. state that farmers should be able to work under pressure but yielding the best results possible. Thus, management skills are very essential aspects of productive and sustainable farming. Numerical aptitude, supervisory skills and management ability should be possessed by farmers. Considerably, management skills also involve making and implementing impetus decisions involved in running a farm for maximum production and high profit. Ultimately, considering the evolution in agricultural economics, pricing management, internal and external farm administration skills are regarded as essential skills for fecund farming.

The above-mentioned skills are pivotal and very important for economic development and growth of consciousness farmers. This national phenomenon can be attributed to different factors but, fundamentally, the call for contextualizing entrepreneurship skills in farming in emerging countries ^[2]. For this reason, it is thus imperative to clearly illustrate entrepreneurial awareness and its benefits for productive farming. Accordingly, Koch et al. ^[16] conducted a systematic literature review on extant research in agronomic entrepreneurship and identified three key contextual dimensions of the agriculture sector which are identity, family and institutions. These dimensions are perceived to provide proper light in small-scale farming if farmers are well connected and understand the role each should play. More so, Williams ^[17] conducted a study on contextualizing youth entrepreneurship among young farmers in Botswana and revealed that youth entrepreneurship plays a key role in rural farming development.

Mikko and Pyysiainen ^[18] considered entrepreneurship to be a crucial dynamic force in the development of youths in the small farming business. The relevance of entrepreneurial skills in farming is associated with the aim of survival of farms ^[19-21]. Thus, it is pragmatic to develop the essence of entrepreneurship among youths in the society. Also, involving young women in agriculture is regarded as an influential economic initiative to reduce unemployment, poverty and inequality ^[22,23]. Against this conception, Hussain et al. ^[24], AGRIAFRICA ^[25] and Mukoki ^[26] congruently identified several constraining factors in small-scale agriculture. Among others, inability to convert resources such as latest technology in farming, information from agricultural research centres, cross-breeding strategies and water management skills to profitable production has been one a challenge hindering probable rural development through farming.

Many farmers managed to break even through numerous interventions by the external stakeholders such as the government and Non-Governmental Organisation (NGOs) ^[27]. Evidently, many challenges faced by small-scale farmers have been addressed. For example, access to credit and food shortages as noted by Qwabe ^[28], have been addressed at the national level by many governments in both developing and developed nations. Entrepreneurial skills, however, remains elusive for many farmers ^[24,25]. The ability to convert information into practice, financial skills, water management skills, cross-breeding skills and the use of modern technology are identified as entrepreneurial constraints faced by small-scale farmers ^[29]. Information management strategies to improve the productive and sustainable small-scale farming is lagging behind and as at stake are rural dwellers who are food insecure despite numerous opportunities to their disposal through farming ^[29]. Approximately 60% of rural dwellers are food insecure yet about 70% of rural land in Limpopo Province are practising small-scale agriculture ^[30,31]. Against this background, a reflective exposition of different entrepreneurial opportunities for small-scale farming is very critical for productive farming, thus, the following subsection gives a transitory enlightenment on major entrepreneurial opportunities for small-scale farmers in rural areas.

Major entrepreneurial opportunities and small-scale farming in rural development

South Africa, as an emerging economy endowed with nine provinces, has a diverse economic setup as some provinces such Gauteng and Western Cape have characteristics of a developed country. In Contrast, other provinces such as Eastern Cape, Mpumalanga, and Limpopo are considered developing and chronic challenges such as high unemployment and poverty rates and the majority is considered poor and survive from subsistence farming. Overall, an ominously large percentage (43%) of South Africa's population live permanently in rural areas yet at most 70% of rural dwellers considered poor and surviving from agriculture. Evidently, a study by Pienaar and Traub ^[32] revealed that at most 65% of poor households are engaged in small-scale farming in the former homelands cultivating areas less than 20 hectares.

While Limpopo, with at most 6 million people who account for 10% of the overall population in South Africa, the province is highly depended on agriculture. The province covers an area of 12.46 million hectares and accounts for 12% of the total area in South Africa. The province is endowed with abundant agricultural resources and it is one prime producer of livestock, fruits, cereals, sugar and tea which adds up to overall agricultural exports in South Africa ^[33]. The province has a dual agricultural system consisting of 5000 large-scale commercial farmers and 273 000 smallholder farmers (black and white farmers) ^[34,35]. Among the black farmers, large-scale farmers have been performing well due to their sophisticated and highly automated farming methods ^[36]. On the contrary, small-scale farmers are equated with a background which is non-productive, mostly subsistence agriculture that is, however, evolving to become profit-oriented farming ^[36].

Accordingly, considering the increase in the number of profit-oriented small-scale farming in rural areas means that more self-employment, more food, and more income can be generated to sustain rural livelihoods ^[37]. The role of small-scale agriculture is clearly fundamental and if it is well studied and planned for the outcome is profound since small-scale farming holds the centre stage for rural development in South Africa ^[35]. At present, the endeavor to increase household food security to eradicated hunger by 2030 (SDGs 2030 "No poverty and zero hunger" by 2030), South Africa infused different programmes and agriculture supporting structures for rural development targeting small-scale farming ^[38]. Subsequently, the parameters are presumed plausible to be contributed by small-scale rural farming.

Contribution to employment creation and national output

In 2014, the General Household Survey of 2013 revealed that agriculture is one of the largest sectors with employment of more than 70% of the working population in rural areas. Subsequently, the sector contributed against this background, the use of human capital has been considered the most feasible and cost-effective method in rural farming. Admittedly, Khapayi and

Celliers^[39] stated that it is easy to be employed in the agriculture sector because of less sophisticated skills required. As such, the development of agriculture sector may lead to more jobs created hence reducing the rate of rural unemployment.

Contribution to tax

Small-scale commercial farming is generally recognized as legal entities which are subjected to tax^[40]. Thus, an increase in the number of small-scale commercial farmers means more taxes which in turn contribute to the government's ability to stimulate the economy and therefore human development. Congruently, more farmers can generate more taxable income which can be channeled towards poverty reduction and the implementation of other social programs such, as healthcare aids and social grant support.

Contribution to employers and employees' incomes

An increase in employers and employee's income means more disposable income for spending thus, increasing the buying power of the rural populace. Increase in income stimulates spending and it improves general living standards and conditions^[41]. More so, the income can be reinvested into farming for growth hence boosting the agriculture sector.

Contribution to farming business growth in assets and capital

Small-scale commercial farming faces stringent competition in local and international markets which in turn hampers probable growth in the sub-sector^[39]. However, an increase in retained earnings will lower the business's risk to market changes, thus, increasing small-scale farming ability to obtain local and foreign investment. Ultimately, capital formation and asset growth increase the capacity to expand, improve farming products, and invest in up to date technology. Consequently, according to Shepherd and Watson, there are several factors which are linked to small-scale farming that can lead to economic development.

Four factors of economic development

There are four fundamental factors which are believed to be instrumental in the determination of the capacity level of economic development (economic growth), and which decide the opportunities for further growth^[42]. As such, many rural dwellers are in the possession or control much of these factors of economic development.

Size and quality of the labour force: Jayne et al.^[43] stated that the size and quality of labour force are very crucial factors in farm production and they depend on the composition of the population. Therefore, the level of farming education and training, work ethics and the state of health of the rural populace are important factors for productive farming in marginalized areas^[44]. Ultimately, the education level and farm experience are the two most important parameters influencing the quality of farming in rural areas. As such, many rural dwellers have been practising farmers for decades^[45].

Quantity and quality of capital: Productive farming highly depends on the ability to generate new capital out of savings, investments and government hand-outs in rural areas. Klerk et al. conducted a study on the current state of agricultural and rural finance in South Africa. The results revealed that the quantity of liquid capital is very crucial for developing rural agriculture and rural development. Thus, the availability of capital (quality and quantity) limits farming productive hence, economic growth in marginal areas.

Availability of natural resources: Availability of natural resources helps farmers to develop economically. The land has been one resource which is essentially linked to productive farming. Agricultural Sustainability Institute stated that fertile soils have been the leading factor for productive farming which is also linked to economic farming. The goal of developing agriculture and attaining sustainable growth can be achieved only if farming soils are improved both in terms of ploughing and maintained. More so, there are other natural resources such as erratic rainfall and dam water which can have repo effects on farming if not well used for farming purposes. Nevertheless, a combination of different methods to promote soil healthy, minimizing water use and lower pollution levels on farms can be major factors for improving agriculture in rural areas.

Technology: Considering great evolution in the technology spectrum, Bruinsma^[45], Altieri^[46], Gordon^[47] identified technology as a crucial factor for productive farming in rural areas. Under the 2030 Agenda for Sustainable Development, increased investments, including through enhanced rural infrastructure, agriculture research and extension services and technology development were found to have expansionary effects on economic growth^[45]. Thus, rural farming technology can be one factor that can lead to enhanced agriculture productive capacity in developing countries^[47], particularly in rural areas. Against this background, there are constraining factors which are hampering small-scale farming growth in rural areas. These constraints are discussed in the following section.

SMALL-SCALE FARMERS CONSTRAINTS: EMPIRICAL EVIDENCE

Constraints faced by farmers

A study by Ameh and Iheanacho analyzed the socio-economic determinant of loan acquisition among small-scale rice farmers in Benue State, Nigeria. Data collected were analyzed using descriptive statistics and the logit model. The result of the logit model shows that age, household size, education, farm size, membership of cooperative and annual income were significant

factors affecting the likelihood of farmers access to a loan. Based on these findings, Ameh and Iheanacho recommended that there should be a deliberate policy to ensure easy access to loans at the soft interest rate, while agricultural extension education on loan acquisition should be intensified. Thus, policy inconsistency and lack of proper education to acquire loans are some of the constraints faced by farmers.

Baloyi; Mpandeli and Maponya ^[7]; Khapayi and Celliers ^[39] researched the issues and constraints for emerging farmers in South Africa. In all of these studies it is revealed that the specific limiting factors emerging farmers face are poor physical infrastructure such as poor roads, lack of transportation to the markets from the farms, lack of marketing skills and information, poor market infrastructure, and high transaction costs, insufficient land availability to expand production, lack of agricultural implements to better production, poor production and farm management skills, as well as low education levels which results in an inability to interpret market information to be used in production planning and marketing. Mpandeli and Maponya ^[7] emphasised that lack of financial literacy, high inputs prices, scarce inputs and high transport costs as all-inclusive constraints faced by many small-scale farmers. As such, more intervention is called for and the government at large has to continue supporting these farmers. Ultimately, the private sector should also be part and parcel of major stakeholders in the agriculture sector. The private sector should be allowed to infuse its skills and resources for the betterment of the agriculture sector as a whole.

CONCLUSION

It is clear that small-scale farmers need to be supported in their farming endeavours. Given different opportunities in this level of farming, it is imperative to suggest that small-scale farming has the structural and functional capability of adding to rural development. Evidently, the preliminary researches on small-scale farming and rural development, it is fundamental to note that these farmers are capable to add on to food security and employment in rural areas. However, considering a diverse range of farming activities carried out by these farmers against the aforementioned challenges, it is pragmatic to suggest the importance of further investigation on how to cater for these challenges. Furthermore, major challenges faced small-scale agriculture have been addressed by still the call for further vigorous intervention is fundamental to enable farmers to develop their entrepreneurial skills. It may well point to the fact that if the sector is under as much strain as many would suggest, then many farmers require different socio-economic support ranging from financial to skills training. Perhaps one of the major questions to ask is how much these farmers are producing which can be attributed to rural development? Clearly, there is no sufficient evidence regarding which skills affect which type farming since there is a diverse range of small-scale farming activities mainly in rural areas. Thus, this calls for further investigation which provides a detailed approach regarding small-scale farming in rural areas.

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