

COVID-19 supply chain disruptions: opportunities for business growth created by the pandemic for young farmers in Orange Farm in South Africa

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ABSTRACT

This paper provides an early evaluation of the experiences of young farmers (ages 20-35 years) from Orange Farm in South Africa during the COVID-19 pandemic period from March 2020-January 2021. COVID-19 disrupted supply chains severely and this affected the traditional customer base of many young farmers due to travel restrictions. Using a qualitative approach, this paper discusses the lived experiences of young farmers during the periodic COVID-19 induced lockdowns. Despite the many challenges brought about by COVID-19, it also brought with it opportunities for growth and increased income for the young farmers. The study findings showed that the lockdown imposed on South Africa to curb the spread of COVID-19 were somewhat a blessing in disguise for young farmers who were able to capitalize on the supply chain disruptions and grab a significant local market share for their produce due to community members' restricted movement. Operating within the confines of their community, young farmers managed to bridge the gaps in local food supply chain. Young farmers also turned to e-commerce as people minimized physical contact and practiced social distancing. These developments are expected to have a lasting impact on young farmers' business operations and there are far reaching policy implications emanating from this study.

Key Words: COVID-19 pandemic, young farmers, local food supply chain, agriculture, poverty, sustainable development

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INTRODUCTION

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus which can spread between people in close contact through coughing, sneezing, speaking, singing or breathing (World Health Organization, 2021). This global pandemic has disrupted the agri-food supply chain, affected food production capacity and caused significant difficulties in the transportation of agricultural produce to the market within a context of increased demand (Mastronardi et al., 2020; Rawal et al., 2020). Some authors have argued that farmers and agricultural workers are 'unsung heroes' in their own right whose stories have not been publicized by media during the coverage of the experiences of essential workers during COVID-19 lockdowns worldwide (Timilsina et al., 2020). This argument stems from the fact that farmers play a key role in sustaining the complex global food system and the restrictions imposed by governments worldwide to curb the spread of COVID-19 disrupted this food system and proved that agriculture is the backbone of every nation's survival with its interruption posing a threat to both rural and urban livelihoods (Harris et al., 2020).

In the presence of a pandemic agricultural exports are reduced in favour of domestic supplies to adequately meet local demand yet this move actually further contributes to the global food supply decline (Zhang et al., 2020). Social panic during pandemics is believed to be the major source of agricultural market disruptions resulting in food shortages and hiking of prices on agricultural commodities as people tend to hoard food that has longer shelf life as well as that which is not easily transported, distributed and processed (Naeem, 2021). For example a study conducted in Iraqi Kurdistan showed that social media fuelled food shortage panic as people circulated photographs of empty shops (Ahmad and Murad, 2020) while other scholars argued that consumer behaviour during

the onset of COVID-19 led to panic-buying in preparation for future shocks as consumers generally feared scarcity (Loxton et al., 2020).

Academics have argued that the experience with the COVID-19 crisis requires a reconstruction of a post-COVID-19 agricultural system which has the ability to avoid or resist disruptions in food supplies through creating food production and consumption in specific territories (Altieri and Nicholls, 2020). In South Africa some farmers lost their fresh produce due to the closure of the hospitality industry which led to unanticipated loss of business (Ciaran, 2020). COVID-19 has proved that the existing industrial-globalized food systems are highly fragile in the face of crisis as supply chains can easily be disrupted (Altieri and Nicholls, 2020). This pandemic has shown the need for a new food production system that involves the local production of nutrient-dense foods as well as a new and more efficient food distribution system for ongoing and future responses to global pandemics (Harris et al., 2020). Thus a new food production and supply system which supports lower level sustainable family farming stands a higher chance at achieving goals to reduce rural poverty, increase food security and create resilient localized food systems that are self-reliant (Altieri and Nicholls, 2020).

Many African governments have been criticized for providing emergency temporary food relief instead of offering support to local small-scale food production systems (family farming) that can offer a more sustainable solution to community/family food security during the pandemic and post-COVID-19 (Mukiibi, 2020). Similar concerns are highlighted by, Crush and Si (2020) who noted the need to improve food security interventions during and post COVID-19 in urban areas in the Global South given that the urban poor have been grossly affected by the disruptions of the global food supply systems and the closure of the informal food sector which the majority of the urban poor relied on. Thus many

scholars are calling for a shift from the current global industrialized food systems in favour of more localized sustainable solutions as well as improved technologies and greater collaboration within food supply chains to allow for easier adaptation and coping in the face of future pandemics (Sharma et al., 2020).

Research conducted in India has shown that many rural farmers have suffered crop losses due to the disruption of supply chains and agricultural marketing systems yet very little support and relief came from government in a time when they need this support the most (Rawal et al., 2020). A similar scenario has been experienced in Brazilian urban cities where the urban poor who have previously relied on informal/traditional street markets have been left with "food voids" in their areas of residency as the prices in the traditional retail food stores are far too pricey and beyond reach for many urban poor (Silva Filho and Gomes Júnior, 2020). These authors argue that the food supply system of Brazil is currently fully functional with little shortage of produce although the growing food insecurity for the urban poor has been attributed to the hiked food prices since the onset of the COVID-19 restrictions which are beyond reach for many.

The South African government on the other hand has been critiqued for its (mis)handling of the informal food traders who are typically the immediate point of food markets for the urban poor yet they were not treated nor recognized as essential service providers (Wegerif, 2020). These traders lost all forms of income immediately (when the initial level 5 lockdown was imposed) yet they were actually essential service providers (Wegerif, 2020) thus calling for greater strengthening of the informal traders industry as it too makes a significant contribution towards food security beyond government food parcels (Skinner and Watson, 2020).

REVIEW OF LITERATURE

Young people and agriculture

Nearly 70 percent of the world's population is comprised of young people. Most developing countries are undergoing a 'youth bulge' in which the number of young people between 15-24 years is peaking (Perezniето and Harding, 2013). For example, in Africa alone approximately 70% of the population is under 30 years old making Africa the continent with the youngest population globally (Hakizimana, 2016). However, the strengths that youths bring to sustainable agriculture are often underutilized as youths are assets that can be utilized towards sustainable agriculture (Zulu et al., 2021). Globally the odds are high for youths to become more food insecure than adults largely due to income-related inequalities (Amarnaniet al., 2017). The youth and food security nexus has been explored by some authors and they have argued that in relation to migration and development a conversation around youths and food security is lacking (Sithole and Dinbabo, 2016). It is argued that young people "should be viewed as an integral part of the solution to food security yet there is limited research that looks at food security through youth lens" (Feighery et al., 2011: 5). Looking at the problems experienced by young farmers in Poland it is argued that the challenges young farmers experience in their trade should be addressed along with other socio-economic problems in rural areas and that young farmers require state support as they have little access to resources and limited professional experience for their start-up farming activities (Adamowicz and Szepeluk, 2016).

Engaging young people is key towards sustainable poverty alleviation within communities as well as economic wealth creation (Perezniето, 2013). In South Africa this is evident as articulated by the National Youth Policy which states that "Young people are a major human resource for development, often acting

as key agents for social change, economic expansion and innovation. Their imagination, ideals, energy and vision are essential for the continuous development of society” (National Youth Policy 2020, 2015: 2). The South African National Youth Policy recognises that youths who do not have reliable and sustainable income generating activities struggle to achieve economic independence and cannot self-sustain. This is then coupled with the fact that young people are often marginalized in their communities and are often not awarded the opportunity for meaningful and proactive citizenry and engagement in their societies.

Despite the recognition of youth potential in agriculture, in Africa, it has been highlighted that young people have actually not benefited from large-scale land-based investments over the years hence interventions that are specifically aimed at young people will be more helpful (Hakizimana, 2016). This has also been a factor attributed to youths leaving rural areas towards cities as they have not benefitted much from agriculture. Another issue raised by scholars is that young people in both rural and urban settings generally do not appreciate the agriculture sector due to having poor information about the available opportunities in this industry (White, 2012).

Challenges faced by young people in agriculture

Smallholders farmers in rural South Africa largely failed to produce high yields especially for commercial use as they have historically not had sufficient access to "capital for basic requirements including irrigation and credit, the difficulties of marketing produce, and the problems of competing with subsidised and favoured white farmers" (Levin and Neocosmos, 1989: 232). These challenges have not changed almost three decades later as smallholder farmers are faced with poor physical infrastructure in their areas of residence which make

transportation of their produce difficult (Khapayi and Celliers, 2016). This is coupled with having poor access to key information on farming markets and the required marketing skills hence there is a general low appreciation of the industry by young people (White, 2012).

Smallholder farmers also experience poor access to land and poor funding making it difficult for them to survive or thrive in the farming trade (Maele et al., 2015). For example a study conducted on several youth farming cooperatives in the Limpopo Province of South Africa showed that improving land allocations for youth as well as servicing and strengthening existing youth projects and initiatives helps to enhance their productivity (Maele et al., 2015). Also, many smallholder farmers possess little farm management skills thus thwarting their ability to grow in the sector (Mutero et al., 2016). In other countries it has also emerged that the poor returns and difficulty of physical labour involved in smallholder farming hinder rural youths from continued engagement in farming as they do not yield the desired results due to insufficiency of resources for the trade (Ali et al., 2021).

Barriers to entry

The agricultural sector has several barriers to entry that make it difficult for new entrants to farming who are under-resourced to either enter the trade or survive in the trade for long. These barriers to entry are a result of the duality of the South African agricultural sector which comprises of both a well-established commercial sector and a smallholder sector that is poorly developed (Thamaga-Chitja and Morojele, 2014).

Poor Policies- In South Africa government's policies have failed to facilitate greater youth participation in agriculture and this is believed to be a contributor in the disinterest in farming by youths

(Bennell, 2007). For example, there are “no active policies that are aimed at engaging South Africa's youth (adult population under 35 years of age) into ownership of land” yet youth are acknowledged to be the future stewards of land (Presidential advisory panel on land reform and agriculture, 2019: 17). This limits young farmers entry and participation in farming as land is a critical resource for embarking on farming initiatives (Chinsinga and Chasukwa, 2012). However, there exists many programs that have been implemented to assist smallholder farmers yet these programs often fail to achieve desired results due to poor technical training of the service providers and staff as well as general poor planning leading to poor implementation (Thamaga-Chitja and Morojele, 2014).

Poor Education- It has emerged that learning of Agriculture Science is difficult due to a lack of adequate government support for both learners and educators; poor delivery of resources such as textbooks by the department of Education; and a general lack of resources such as study materials for the learners (Chibelitu, 2017). The Department of Agriculture in South Africa has highlighted some of the challenges faced in agriculture education and training institutions such as the fact that there is an inadequacy of trained educators for both theoretical and practical agriculture (DAFF, 2008). The management of agriculture education and training is currently fragmented and in need of better coordination as colleges are currently managed at provincial level and are not formally recognized as being part of the national higher education system (Swanepoel, 2017). Research conducted by the Department of Agriculture in 2005 also highlighted that the agriculture sector is faced with challenges of a general lack of appropriate models which integrate gender dynamics as women's contribution to agriculture education is still undervalued and discriminated against (DAFF, 2008). This research report also highlighted that women are also excluded from the Agriculture Education Training due to the often long distances to the centers

along with issues of affordability. Also, the quality of agriculture training offered in former black schools was found to be of very low quality with the educators themselves not being qualified in both Science and agriculture.

Market Access Barriers- Participation in agriculture is largely dependent on access to markets by youths who are involved in agriculture (Njeru and Mwangi, 2015). Thus there is a positive relationship between access to markets and smallholder farmers' participation in agriculture (Van der Heijden and Vink, 2013). Also, access to sufficient knowledge about markets and market prices for their produce empowers young farmers to engage in agriculture. However, in South Africa, rural farmers have poor access to secure markets and often rely on informal markets which often mean that they have to use public transport to travel long distances to access decent informal markets for their produce (Thamaga-Chitja and Morojele, 2014). Smallholder farmers in South Africa are excluded from the supply value chain as the formal food retail industry is hostile towards informal farmers with its resemblance of market structures in developed countries (Van der Heijden and Vink, 2013).

METHODOLOGY

The study is part of an ongoing PhD research project being conducted with young farmers in Orange Farm which is a peri-urban area in South Africa with existing pockets of rurality and rural characteristics. Orange Farm is predominantly made up of black Africans and Coloured people and it is estimated that the population size is within the range of 400 000-1 000 000 residents. 60% are unemployed whilst those who work are employed mostly in informal service and trade. Approximately 70% live below the poverty line (less than 1 USD per day). Focus was on experiences of young farmers during the COVID-19 pandemic period from March 2020-January 2021. These young farmers utilised available

idle municipal land to conduct their farming ventures and so they did not own the land they used and neither was it family land. A case study design and a qualitative research approach was adopted to capture and understand the experiences of young farmers in a holistic way as well as the dynamic social interaction and experiences (Silverman, 2001). Data was gathered using semi-structured interviews which were conducted in seven small youth farming cooperatives in the form of face-to-face interviews, focus groups, attending youth agricultural tours, Skype and WhatsApp group conversations. Youth in this study were defined as anyone within the age range of 20-35 years for the sake of finding relevant recorded data for farmers in this age range. Data analysis was carried out manually using thematic content analysis to examine, record and group similar emerging trends or themes within the data which were associated with the research questions. Regarding ethics, informed consent was obtained from the study participants through informing them of the research and they only took part after being made fully aware of the scope of the research and the full extent of their contribution. Participation was also voluntary and participants could withdraw at any time from the research. Pseudonyms have been used to replace participant names to ensure participant anonymity and confidentiality. Lastly, the research was carried out with ethical clearance and permission from the University of the Witwatersrand Human Research Ethics Committee (Non-Medical), and in accordance with its requirements.

KEY FINDINGS

The COVID-19 restrictions on movement greatly disrupted the local food supply chain leading to shortage of fresh produce in local shops that supply the Orange Farm community. This shortage created an opportunity for the young farmers to capitalize on by supplying the local shops which prior to the pandemic were beyond their reach as these stores preferred bulk buying their fresh

produce outside of the community then selling to the community. The farmers were thus able to sell their produce to these shops at a premium which they had never sold for prior to the pandemic. Further, fear of contracting the pandemic saw community members increasing purchases of fresh vegetables in an attempt to boost their immune systems thus increasing the demand for fresh produce in the community for the farmers to cater to. Pre-COVID-19 most community members preferred to commute to the city to purchase their vegetables there arguing that they were cheaper in the city. However, this new opportunity for supplying the local stores was decelerated by the lack of adequate resources such as land and other inputs in order to producer higher yields that would meet the new increased demand.

Another opportunity created by the pandemic for the farmers was that they managed to quickly adapt to using online social media platforms such as Facebook and WhatsApp to market and sell their produce as many community members shifted to placing orders online due to restrictions on movement and general fears of contracting the virus. The farmers being young found these methods cheaper, quicker and more effective for marketing their fresh produce. This use of social media during the pandemic also allowed for the creation of strong networks and solidarity between the farmers and those from other cooperatives within their community as communication barriers were broken and a bond was created through informally unionizing for improved farming experiences within their community through online information sharing. These findings showed the importance of promoting a youth-centric inclusive rural transformation that promotes agriculture as an approach to rural development. This process will allow for boosting agricultural productivity, increasing off-farm employment opportunities, creating a space for rural young farmers to influence policy as well as access to better services and infrastructure.

DISCUSSION OF FINDINGS

Bridging the local gap of food supply disruptions

The first hard national lockdown implemented on March 27, 2020, in South Africa disallowed all cross-border movements and only allowed for the movement of goods across borders (Warjri and Shah, 2020). The restriction of movement imposed by the South African government to curb the spread of the virus as was the case globally saw a restriction on movement on the young farmers who participated in the study resulting in their inability to travel to the city to sell their produce. Though this came as a major setback, it inadvertently resulted in an increase in the amount of local sales they made as they were limited to selling their produce locally within their community. This is because the imposed social distancing measures restricted movement on all non-essential services thus community members were bound to their homes for almost five weeks. Pre-COVID-19 the local customers preferred to commute to the city to purchase their vegetables instead of purchasing from the young farmers arguing that fresh produce was much cheaper in the city. When the pandemic struck, agricultural producers were categorized as essential service providers in South Africa during the various nationally-imposed lockdown periods and so the young farmers were able to continue operating within the confines of their community.

One farmer had this to say and many other farmers shared the same sentiment regarding community sales:

We the farmers are now providing food to the community. It is now difficult for people to go to town and buy vegetables. Also, our local shops are more expensive than us because they are buying from us and then reselling to the people so the people now prefer to come to us because we are cheaper and we get the vegetables directly from the garden whilst the customer is

watching so they now trust us. (15/5/2020)

Similarly, another farmer had this to say about increase sales during the pandemic and this sentiment was again shared by many others:

This Covid period has been our best one ever as we have sold the most vegetables and instead of us looking for people to buy from us it is the people who have been looking for us to sell them our vegetables. We have been kept really busy since the lockdown started but we just do not have big enough land for us to produce more food to meet such high demand. This land issue limits us. We can do better but government won't give us the land to farm. More land means more produce especially for us organic open-air farmers. (12/9/20)

The young farmers highlighted that the lack of freedom to commute to the city saw community members having limited options for purchasing fresh produce thus forcing them to buy from the farmers. Sales were also boosted by the fact that the onset of the COVID-19 pandemic sent shockwaves of fear and an urge for maintaining healthy lifestyles within the community. As a result, there was an increase in purchases of fresh produce from the farmers by local community members. Most people felt the need to prioritize buying fresh and organic vegetables for strengthening their immune systems. Evident was the attractiveness of the concept of 'naturalness' of fresh produce which consumers especially in urban areas are attracted to as it is perceived to be healthier (Saher, 2006; Armstrong, 2000). Academics argue that consumers are willing to spend much more on foods which are labelled and perceived to be 'natural' as these are seen as safer for consumption and of purer quality (Printezis et al., 2017). Thus the young farmers benefited from this 'halo effect' which is placed on fresh produce as their community members prioritized their

produce for health reasons than before the pandemic. Thus the pandemic boosted local sales for the farmers in an unprecedented manner.

Also, locally, the shops within the community did not buy much produce from the young farmers prior to COVID-19. However, at the onset of the pandemic these shops began to buy more from the farmers as demand for fresh produce increased. The disruption of the supply chains caused gaps in the local market which in turn opened up opportunities for the young farmers as they were able to bridge this gap by supplying the local supermarkets too. Prior to the pandemic and the restrictions on movement that came with it, the local supermarkets would not buy from the young farmers arguing that they had a variety of options in the city where they could buy in bulk for much cheaper than the prices that the young farmers were charging. However, COVID-19 gave the young farmers an upper hand in the supply chain which they previously did not have. For example the young farmers were able to sell their produce at a higher price of US 0.50 (on average) for a bunch of spinach which the farmers felt was really high given that the same supermarkets were known to only purchase at a fixed price of R5 (on average) per bunch prior to COVID-19. The local supermarkets even started placing higher orders for fresh produce to the extent where the young farmers could not cope with the demand as most of them had small pieces of land on which they farmed.

Given these opportunities that emerged during the pandemic, it is vital to consolidate these gains and ensure that retailers keep buying from local young emerging farmers post covid. Given the challenge of lack of access to larger pieces of land that the youths face, government should offer support in the form of more land and better equipment to enable consistent produce all year round and not just seasonal.

Adaptive use of technology

Globally, COVID-19 has increased the rates of purchases done via e-commerce as people minimize physical contact and practice social distancing. For example, a recent investigation into the effects of the Corona Virus pandemic on the demand for online food shopping services in Taiwan showed that online sales increased as more confirmed cases of COVID-19 were recorded (Chang and Meyerhoefer, 2020). Food producers and retailers responded to this increase in online sales by ensuring that they could have e-commerce platforms for selling their produce in the country as people minimized physical contact. Similarly, the young farmers studied utilized WhatsApp and Facebook to market and sell their produce to their local community. Their idea of online sales involves marketing their produce on WhatsApp and Facebook as they cannot afford to use established online channels. They are successfully using these platforms and reported receiving increased orders from their local community members via online platforms. The use of online platforms especially social media entails young farmers posting pictures and prices of their produce on community social media platforms such as WhatsApp groups and Facebook groups. Community members either place an order and request delivery or they physically go to the farmers to purchase the produce. The use of technology has enhanced sales for the young farmers as they find these platforms to be a cheap and quick way of marketing their produce locally.

Commenting on their use of WhatsApp and Facebook for selling their vegetables one farmer had this to say which was also a sentiment expressed by many other farmers:

Because of COVID-19 many people now order stuff from us via WhatsApp and Facebook. Previously we used to only sell our vegetables on WhatsApp even though we used to market our products on Facebook too but not many people would buy via Facebook. Now because of COVID-19 we get orders even on

Facebook then the people pay us either cash or ewallet on delivery. People want to reduce the number of visits they make to the supermarket so they contact us to deliver vegetables to them and some people also now earn less money so they reach us because we are cheaper than the shops and they can save some money by buying from us. The only challenge though is that we always have to have data in our phones otherwise we will delay in attending to our customers. (2/9/2020).

WhatsApp is the most commonly used tool for communication and mobilization by the young farmers. They find it easy, affordable and quick for sharing information regarding COVID-19 regulations as well as spreading word on the help that government is giving to farmers. Further, the young farmers are also using this mobile application to share information regarding the best agricultural practices to embark on in their cooperatives. Thus, the local farmers have created a bond with other farming cooperatives in their community which never existed before. The pandemic ignited a sense of teamwork and solidarity to unite against a common enemy and to thrive despite the hardships that the pandemic has brought on them. Through WhatsApp these young farmers are forming alliances to support each other as the pandemic continues. Such effective use of mobile technology supports the argument that digital inclusion for smallholder farmers can help to increase their productivity and resilience (Quayson et al., 2020) as the young farmers in the study are united by this simple mobile application.

In the spirit of teamwork during the Covid-19 hard lock down one farmer shared the following reminder for all to see:

Morning farmers, leaders. If it's possible, may you also carry your CIPC registration certificate along with you if you will be traveling so that the police and soldiers do not disturb your movements. Thanks (5/04/20)

The young farmers continued to provide each other with empowering information to manoeuvre in a difficult industry and at a difficult time. They also encouraged each other to act and not wait on government which they believed was unreliable for assistance. One farmer encouraged others on the group to continue finding solutions to the poverty and not just wait on government as follows:

The only way to get things done is to be involved my leaders (every farmer is referred to as a leader as they see themselves as future society leaders). We are done thinking that the government will bring us things. Hell no. We got to go and get them ourselves. (9/08/19)

Many funding opportunities were also shared on the WhatsApp group as follows:

Food For Mzansi and Grobank are bringing top speakers to make sense of our new reality – empowering farmers and agripreneurs for South African agriculture beyond covid-19. The event is free online for all farmers and agripreneurs. If you attend you will also receive a summary of all the financial support currently on the table to assist the agricultural sector in surviving the pandemic. Requirements: Laptop, tablet or phone device with internet connection. (26/04/20)

Evident is a desire to thrive and grow in the sector and in unison as the young farmers have formed solidarity in their trade through use of the WhatsApp platform.

Lessons for the future

Although there is no consensus on the most suitable way of fighting poverty in developing countries, most rural development literature considers agriculture as the best vehicle to reduce rural poverty.

(Machethe, 2004). A holistic agricultural approach encompasses both the physical farming activities as well as the off-farm agri-enterprises such as marketing, business solutions and scientific research. Thus inclusive rural transformation should be promoted as it allows for rural development to be imbedded within the transformation of the rural areas whilst also being a part of the overall structural transformation with deliberate efforts to empower young people as a marginalized group as this will not occur automatically on its own. This process will allow for boosting agricultural productivity, increasing off-farm employment opportunities, creating a space for rural young farmers to influence policy as well as access to better services and infrastructure. This may be the best way to create sustainable development which interconnects both rural and urban areas along the lines of socio-economic and political development.

Further, providing youths with knowledge on the agri-sector will be a useful tool for empowering them in their agri-businesses. Agriculture has the potential to employ youths in their numbers given that the young farmers researched on had little knowledge on how to improve their access to market prior to the COVID-19 pandemic and generally struggled to increase sales. These young farmers also showed active engagement with basic technology through use of their cell phones which shows that being of the younger generation they have a greater appreciation for technology use and can certainly benefit from the digitalization of agriculture at structural levels as they were using basic social media to engage in the sector. Advanced agricultural technologies already exist in advanced farms but not in rural areas where poorer farmers like those studied reside yet these young farmers can certainly capitalize on improved access to advanced farming technologies. In the face of COVID-19 and any other future crises, adopting precision agriculture through the use of drones, farming market apps and any other activities associated with Big Data analytics and the Internet (which are economically reasonably priced) is argued

to help to transform the experiences of rural young farmers from their traditional methods as these new methods will limit human interface in times of social distancing requirements and also ensure that these upcoming farmers can continue to operate and access their supply chains uninterrupted thus becoming more resilient to negative impacts of the pandemics.

Food systems and policies going forward should prioritise the needs and aspirations of young food producers and distributors as not only are they the future of food security but they can contribute meaningfully to socio-economic development in the environments within which they reside. Young food producers require greater control over the resources they need to produce food as well as the power to govern (make decisions and control) their own local food systems. There should exist a mutually beneficial relationship between producers and consumers in local market spaces without necessarily rejecting global international markets and trade as young local producers can bridge the gap caused by supply chain disruptions in the event of future unforeseen pandemics. That way food sovereignty can be achieved alongside more sustainable, fairer and better-quality local food systems.

Lastly, a post-COVID-19 environment requires faster land reform which will allow for increasing access to land and boosting the skills of young farmers in South Africa so that they can provide the labour required for the land as this is seen to be one of the best ways that will give an economic competitive edge post the pandemic (Choudhury et al., 2020). To this end, government involvement in facilitating the entry and successful participation of young people in agriculture is critical.

CONCLUSION

COVID-19 was both a distractive force and a source of new opportunities for young farmers. It is apparent that young farmers are key players in bridging the local food supply chain gap caused by disruptions in the global formal food system. In South Africa there is a need for policies and strategies that ensure young farmers' resilience to unforeseen disasters such as the COVID-19 pandemic as it has emerged that these already marginalized poor youths are actually critical players in the food system. Efforts are required to bridge the gap between upcoming farmers and those who are already established in the trade. Young farmers have potential to bridge the gap for creating localized food production system. This is critical to ensure community food security and secure livelihoods in poor communities are youths are largely unemployed.

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