EMERGING AGRIBUSINESS INNOVATION STRATEGIES AS OPPORTUNITIES FOR AGRO-ENTREPRENEURS IN KWAZULU NATAL

Samson Nambei Asoba, Walter Sisulu University
Nteboheng Patricia Mefi, Walter Sisulu University

ABSTRACT

In the Schumpeterian view of entrepreneurship, innovation represents an important way in which new combinations create a new economic equilibrium that lead to new ways and practices. In the same way, this study was formulated to pursue innovation strategies that create opportunities for agribusiness with special focus on an identified farming community in KwaZulu Natal. The study was based on qualitative content analysis of recent agribusiness publications in the ScienceDirect database. The recently published articles were reviewed to identify innovation strategies that are presently attracting scholarly interest as opportunities for agro entrepreneurs. The study found that Fourth Industrial Revolution technologies currently act as enablers for opportunities in digital and smart agribusiness which were found to relate to competitiveness and agribusiness success. These findings support present agribusiness literature. The study recommended agribusiness support institutions to be formed to nurture prospective agribusiness entrepreneurs to effectively exploit identified agribusiness opportunities.

Keywords: Agribusiness, Innovation, Smart Agriculture, Agro-Entrepreneurs, Agriculture 4.0

INTRODUCTION

There is growing recognition that agribusinesses has increased in importance and there is increased value for its role in alleviating unemployment as well as in improving standards of life across emerging economies (Ragasa, Lambrecht & Kufoalor, 2017). As observed in the Bureau for Economic Research [BER] (2016); (Omoruyi, Olamide, Gomolemo & Donath, 2017), South Africa values and recognizes the significant contribution of small business and entrepreneurial ventures in economic growth, alleviation of poverty as well as reduction of unemployment. It is then worrying that South African small businesses face a notable challenge of failure while the rate of entrepreneurship is still being considered to be below that of other emerging economies in the Brazil, Russia, India, China and South Africa (BRICS) bloc (Malebana & Swanepoel, 2015; Bowmaker-Falconer & Herrington, 2020). This study stems from reports that 75% of South African SMMEs fail after being in existence for only 42 months (Bruwer & Berg, 2017), yet these business entities are believed to contribute at least 50% to the national Gross Domestic Product. The study is also important given that unemployment in South Africa remains high (29.1% in the fourth quarter of 2019) (Statistics South Africa, 2019). These observations necessitated the need for investigations in stimulants, enablers and accelerators of entrepreneurship across all economic sectors in South Africa. Against this backdrop, the present study was formulated to assess the innovation strategy that creates an opportunity for the agribusiness sector in South Africa. This is important in providing focus to the agricultural sector opportunities as well as in opening economic doors for potential entrepreneurs. Potential entrepreneurs, small business incubators and unemployment graduates are likely to view the findings of this study as critical in increasing there awareness and propensity to initiate agribusinesses profitably. The study takes a Shumpetarian view of entrepreneurship.

LITERATURE REVIEW

Agribusiness Innovation Strategies

Robert Schumpeter's (1947) seminal paper on creative responses emphasised that the role of innovation (*i.e.,* enhancing the effectiveness of an existing idea) was more important than the role of invention (*i.e.,* the creation of a new idea) (Bruwer & Berg, 2017). This argument is the basis for the growth and support of entrepreneurship and SMMEs. Strategic innovation, value and disruptive innovation have gained prominence as present sources of market entry for entrepreneurs and as competitiveness strategies for existing businesses in existing industries (Carmelo, 2015). With the Fourth industrial revolution, innovation and invention have become central in business, social, political, industrial and economic science. Lew, Walther, Pang & Shin (2018) observed that communication technologies have advanced with the increased use of technology consistent with the Fourth Industrial Revolution (4IR). The industrial revolution in agriculture have resulted in Agriculture 4.0 as well as smart agribusiness which is characterized by significant digitalization (Knierim, Kernecker, Erdle, Kraus, Borges & Wurbs, 2019). These are innovative ways that have implications on agribusinesses. Innovation tends to present an opportunity that is worth considering in agribusiness. Innovation has, over the years, resulted in major revolutions in agriculture including the Agriculture revolution, the Green revolution and currently Agriculture revolution. As a result of smart agriculture which is inspired by the 4IR technologies, new business models have started to emerge and customer expectations are changing (Schwab, 2016). In addition, existing industries are being modified while new sectors are sprouting.

Equally significant is the fact that new ideas, beliefs, attitudes and developments are always emerging. Some of these changes are predictable or cyclical (repetitive) while others are completely unpredictable and new. Agribusiness entrepreneurs and small businesses operate under these situations where the political, socio-economic, technological, environmental, ecological and legal environments are ever changing. Furthermore, globalisation implies that changes in any part of the world quickly have a ripple effect worldwide. Both reactive and proactive. Therefore strategic management is both a proactive and a reactive action (Thompson, Gamble & Strickland, 2006).

Purpose of the Study

The study was orientated to the theory of entrepreneurs and entrepreneurship as provided in the work of Robert Schumpeter. As explained in Carmen (2015:11), the theory proposes that economic development arises from new combinations and entrepreneurial innovations which disrupt existing equilibrium thereby propelling progress to a new equilibrium point. These arguments are particularly important for considerations given technological developments which are initiating new resource combinations in a way that creates new economic combinations. Schumpeter was of the view that entrepreneurs create something innovatively new thereby causing changes that result in new thinking and significant transformations in industries and sectors (Simpeh, 2011). The study was based on the innovative ways that are emerging in the agribusiness environment. Given the above, the study aimed to attend to the following research questions on the research question: What are the emerging agribusiness innovation opportunities available for agro entrepreneurs?

METHODOLOGY

Given that the study was descriptive in nature as it focused on describing the agribusiness innovation strategies and opportunities available for smallholder farmers at in the KwaZulu Natal distristrict, descriptive methodologies were appropriate. As informed in Vaismoradi, Turunen &

Bondas (2013) qualitative research methodologies are often distinguished by the degree to which they describe and interpret phenomenon. Some methods are more oriented to description while other to interpretation of data. As such, the study was based on qualitative content analysis based on the keywords on abstracts of selected review articles from the Science Direct database. These keywords were seen as pointing to important emerging themes on agribusinesss. The Science Direct data was purposively chosen to search for relevant documents for analysis as it provide a wide range of theoretical and empirical publications on various skills including Agriculture. In addition, the Science Direct database provide links for related studies thereby allowing a researcher to easily expand the study by following suggestions on related articles. The key words that were used to search for relevant articles was 'agribusiness' and it yielded to a large pool of articles. The years of publication of the articles were provided. The study wanted to establish the contents in the latest articles as these would contain the relevant innovative practices emerging in agribusiness. The steps followed in selecting articles is shown in Figure 1 below.

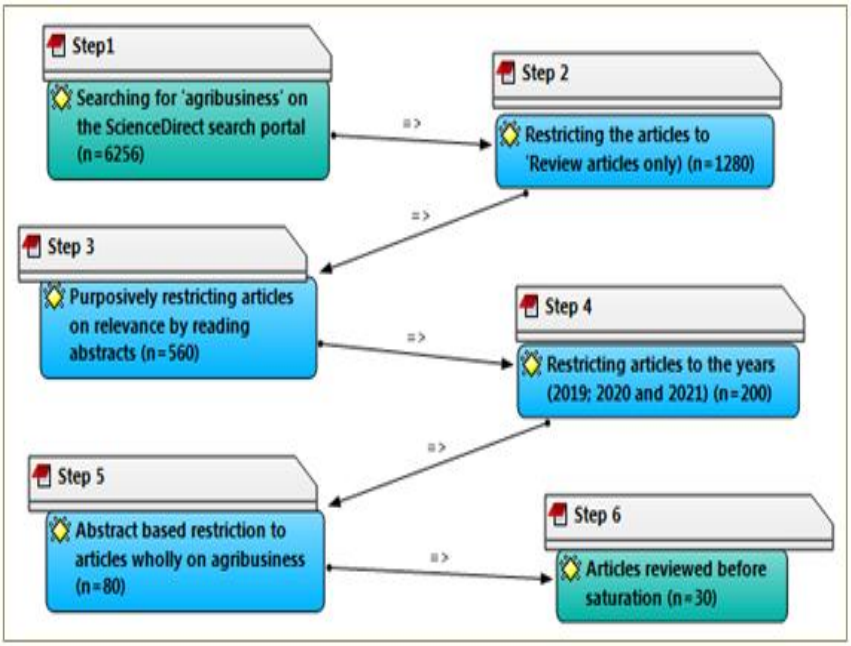

FIGURE 1
ARTICLE SELECTION PROCEDURE

In step 5 the keywords were then tabled out to identify the key themes they reflect, after thirty (30) articles, saturation was observed and it was found that no new words were emerging and the analysis was deemed to have yielded the required emerging agribusiness innovation themes that will create the strategies that were being explored in this study.

FINDINGS AND DISCUSSION

The initial observation from the data collection was that agribusiness publications have been increasing over the years and at present there is significant indication that agribusiness has become an exciting research agenda. This should be taken to equate to the increase of interest in agribusiness among potential and existing entrepreneurs. Figure 2 shows the explained dramatic increase in in agribusiness publications over the years dating back to the 1997. It is clear that there is a definite trend towards the increased scholarly of agribusinesses.

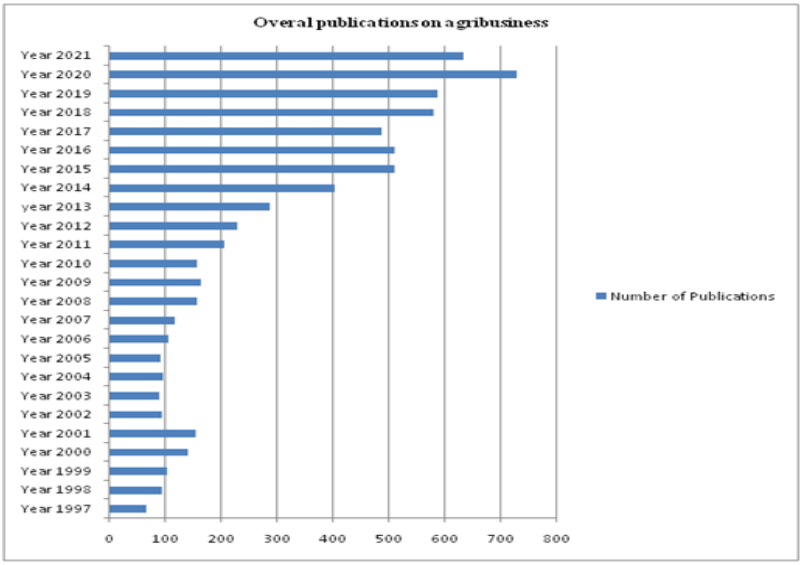

FIGURE 2
SCHOLARLY PUBLICATIONS OF AGRIBUSINESS OVER THE YEARS

In order to establish the emerging themes in agribusiness, it was necessary to establish the dominant theme in these publications over the past few years. To this end, eighty (80) articles published over the past four years were then considered and were found to cluster and relate to certain themes as depicted in Figure 3. Initially the studies were found to cluster into three conceptual categories, namely: (1) agribusiness enablers, (2) emerging agribusiness opportunities and (3) agribusiness innovation outcomes. In other words, scholarly work seemed to have interest to all the factors that promote agribusiness, and the opportunities that can be pursued in the agricultural sector as well as the outcomes of pursuing such opportunities. This is shown in Figure 3.

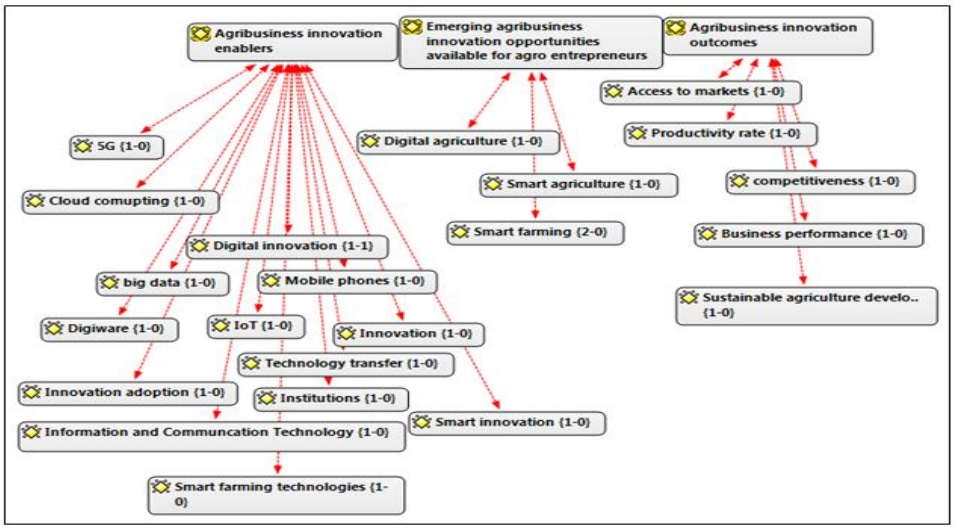

FIGURE 3
EMERGING INNOVATIVE WAYS FOR AGRIBUSINESSES

As shown in Figure 3, the study informed the significance role of agribusiness innovation enablers which were mainly characterized by increased use of 4IR technologies that includes digiware, internet of things, mobile technologies, 5G internet and big data strategies. These findings

reflected the literature on the strength of technological innovations in the present society. Shukla & Singh (2014) pointed out that the competitiveness of all economic sectors in the present society depends of the effective use of technology. The innovation enablers found in this study were found to be the factors needed to facilitate the re-modelling of agribusinesses. Schwab (2016) suggested that the 4IR has affected competitiveness, survival and sustainability in four (4) basic ways, namely: transformation of models of business operation, shifting customer expectations, and data based productivity and formation of new partnerships and collaborations. The 4IR has been associated with several technologies that have disrupted business models and have changed traditional standards of industry competitiveness (Berg, Furrer, Hamon, Rani & Silberman, 2018). Major disruptive technologies associated with the 4IR include artificial technology, robotics, 3D printing, digital work platforms and new computing technologies (Cunnigham, 2018). Remodelling business models may involve the adoption of 4IR technologies. Lai (2017) commented that there are several technology adoption theories that can be considered. The study also found that most agribusiness opportunities in the agribusiness sector were technology-based and they included smart farming, smart agriculture and digital agriculture. In the end, the adoption of these innovation strategies was found to relate to superior performance and increased competitiveness.

CONCLUSION

The study explored the innovation strategies in the agribusiness and found that 4IR technologies are influencing agribusinesses. There are significant opportunities that are associated with the ability to effectively use 4IR technologies in agribusiness. It was found that technological enablers such as digital infrastructure, internet of things and 5G internet are significant enablers that create smart and digital agribusiness opportunities that can be profitably exploited by agribusiness entrepreneurs.

RECOMMENDATION

The study recommends potential entrepreneurs to consider using emerging technologies to exploit emerging agribusiness technologies that include smart farming and digital agriculture. The government is recommended to set up institutions that facilitate the effective exploitation of the identified agribusiness opportunities. Incubators and and other agribusiness development structures should consider equipping entrepreneurs with technological skills relevant for exploiting agribusiness opportunities.

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