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Factors Influencing Agribusiness Organizations Productivity: A Review

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Abstract
The purpose of this study was to review current status, factors that influence, constraints and opportunities of agribusiness organization productivity by analyzing secondary data to prospects or suggest future line of work for researchers, policy makers and other institution which work on this area. The Productivity levels in African agribusiness are low partly and Productivity is not also determined by inputs alone; but it's also determined by human resources capacities, human capital, technological changes, research and extension, political situation , natural resources and environment, workforce, knowledge and skill resulting from training and experience. In addition to this, Agribusiness organizations especially found in developing country has the various constraints and opportunities like adverse weather conditions**,** Credit Availability, high interest rates, fluctuating exchange rates and unused arable land, demand for food is growing fast, a lot of technologies available ,rapidly changing demands respectively. Therefore it has been suggested to investigate further studies on agribusiness organizations contribution on national development like job creation and poverty reduction and how to internalize the available opportunities and overcome existing challenge.
Keywords: Agribusiness, Productivity, Influence, constraint, opportunities
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1. Introduction

1.1 Background of the Study

Africa has the lowest agricultural productivity, amounting to approximately 10% of global agricultural output (Africa, 2014). Agriculture and agribusiness together are projected to be a US$ 1 trillion industry in Sub-Saharan Africa (SSA) by 2030 (compared to US$ 313 billion in 2010), and they should be at the top of the agenda for economic transformation and development (World Bank, 2013). The attention focused on production agriculture will not achieve its developmental goals in isolation from agribusinesses, ranging from small and medium enterprises to multinational companies (World Bank, 2013).

Growth in agribusiness productivity is considered essential in achieving sustainable economic growth and significant level of food security in an under developed country (Nto & Mbanasor, 2011). Essentially, productivity is a ratio to measure how well an organization (or individual, industry, country) converts input resources (labor, materials, machines etc.) into goods and services. This is usually expressed in ratios of inputs to outputs. That is (input) cost per (output) good / service. It is not on its own a measure of how *efficient* the conversion process is. Productivity is an overall measure of the ability to produce a good or service. More specifically, productivity is the measure of how specified resources are managed to accomplish timely objectives as stated in terms of quantity and quality ((Yadav & Marwah, 2015). This argued with (Szabo, 2003), Productivity is measured by an indicator which is a fraction, the numerator of which is a measure of output and the denominator is a measure of input indicator. While Productivity levels in African agribusiness are low partly because educational levels fall well short of the standard required to achieve technical efficiency in agriculture and manufacturing (Africa R.2014).

As many scholars suggest in different research there are different factors influence agribusiness organization productivity from this human resources capacities, human capital, technological changes, research and extension, political situation , natural resources and environment, workforce, knowledge and skill resulting from training and experience. *According to (Africa Renewal, 2014),* It could be possible to exploit several opportunities to overcome existing challenges facing agribusiness like unused arable land and so on.

In generally, the purpose of this study has to review current status, factors that influence, constraints and opportunities of agribusiness organization productivity by analyzing secondary data and to prospects or to suggest future line of work for researchers, policy makers and other institution.

1.2 Objectives of the Review

- The overall objective of the study was to review factors influencing agribusiness organizations productivity.

1.3 Specific objectives are to review:

1. Current status of agribusiness organization productivity;
2. Factors that influence the agribusiness organization;
3. Constraints and opportunities of agribusiness organization.

1.4 Methodology

- This Study was reviewed by referring different studies, published documents, books, journals, theses, conference, dictionary, magazines and news paper.

2.Factors Influencing Agribusiness Organizations Productivity

2.1 Definition of agribusiness organizations

The term 'Agribusiness' was first introduced by Davis and Goldberg in 1957 in a paper presented at the Boston Conference on Distribution as "the sum total of all operations involved in the production and distribution of food and fiber", which described three interdependent sectors in a global food system. It represents a three-part system made up of (i) the agricultural input sector, (ii) the production sector and (iii) the processing-manufacturing sector (Sonka and Hudson, 1989).

It also several definitions of the term *"agribusiness"* exist in the literature. *Encyclopedia Britannica* defines agribusiness broadly as "agriculture operated by business; specifically, a part of a modern economy devoted to the production, processing and distribution of food, fibre products and by-products including the financial institutions that fund these activities" (Encyclopedia Britannica Inc., 2011).

According to (World Bank, 2013) definition "Agribusiness" denotes organized firms—from small and medium enterprises to multinational corporations—involved in input supply or in downstream transformation. It includes commercial agriculture that involves some transformation activities (even if they are basic). It includes smallholders and micro-enterprises in food processing and retail to the extent that they are market oriented—indeed these producers and enterprises make up the bulk of agribusiness activity in Africa today.

A simplistic definition states that agribusiness refers to any business related to agriculture, including farming, processing, exporting, and input suppliers, trading and retailing (USAID, 2008). The term *agribusiness* is often used to convey an aggregate view of agriculture and business-related activities, covering the multiple functions and processes involved in modern food production and distribution. For the purposes of this study, agribusiness denotes the collective business activities that are performed from farm to table. It covers agricultural input suppliers, producers, agro processors, distributors, traders, exporters, retailers and consumers. *This are argued by the definition of Davis and Goldberg (1957),* The sum of all operations involved in manufacture and distribution of farm supplies, production operations on the farm, and the storage, processing, and distribution of farm commodities. *An organization* is "a Body of individuals working under a defined system of rules, assignments procedures, and relationships designed to achieve identifiable objectives and goals."Greenwald, H. P. ,(2008). Richmond, V. P., & McCroskey, J. C., (2009) argued with that "An organized collection of individuals working interdependently within a relatively structured, organized, open system to achieve common goals."

Based on above facts, Agribusiness organization means agriculturally related business organizations, which supplies farm inputs, such as farm machinery, seed and outputs like milk, cake and it's also generate revenue from this/ agricultural activities.

2.2 Productivity concept

Productivity differs from production. Production refers to an increase in output over a given period of time; productivity is concerned with the ratio of output to an input (Yadav & Marwah, 2015). Many writers explain productivity in terms of this ratio with little further elaboration.

"Productivity is the quantitative relationship between what we produce and the resources we use" (Currie (1972)) "The volume of output which is achieved in a given period in relationship to the sum of the direct and indirect effort expended in its production" (Smith & Beeching (1968)).

Productivity ratios usually relate units of one single input, for example $'s labor cost, number of worker days or total cost, to one single output, for example financial measures such as profit or added value, or physical measures such as tones produced or standard minutes of work produced. These ratios in themselves and the definitions given take no account of efficiency, a concept important in evaluating productivity. But, *according to* (Yadav & Marwah, 2015), efficiency takes this aspect of productivity into account and makes comparisons to some known potential. Traditional labor measures of productivity where standard hours are compared to productive hours give good examples of efficiency measures, as they give both an index of labor productivity as well as a concept of how well labor is working or being utilized. Such measures show whether organizations are 'doing things right', but they give no indication of whether an organization is doing the 'right things'.

Bowey *et al.*, (1982) *has highlighted* effectiveness as a vital dimension in improving performance. Consideration of effectiveness is therefore a vital dimension of productivity and failure to take it into account can produce a false assessment of true performance. *According to* (Yadav & Marwah, 2015), Productivity is usually expressed in one of three forms: partial factor productivity, multifactor productivity, and total productivity.

2.3 Current status of agribusiness organization productivity

Productivity levels in African agribusiness are low partly ,because educational levels fall well short of the standard required to achieve technical efficiency in agriculture and manufacturing. In rural areas in sub-Saharan Africa, North Africa, South Asia and the Middle East adult males have about 4 years of education and females even less (1.5 to 4 years), whereas in Central Asia and Europe education levels are much higher (World Bank 2007a). Health and literacy standards are similarly poor.

Table1. Labour productivity in Africa Countries in Agribusiness

Current value added in $ per employee			
Country	1998	2002	2006
Botsrwana	6,868	5,955	9,484
Eritrea	3,842	3,761	3,593
Ethiopia	4,867	4,925	5,547
Mauritius	12,167	11,996	12,597
South Africa	11,527	13,023	34,996
Australia	67,045	41,251	76,777
United States	110,212	132,299	183,734

Source: UNIDO (2009a)

- From above table 1. labour productivity in agribusiness vary significantly amongst different African countries, not only is productivity low by international standards it has stagnated over time.

Figure1. Regional trends in land and labor productivity, within sub-Saharan Africa (2000–2014)
Source: Africa Agriculture Status Report, (2017)

- The above figure indicated that; Within Africa labor and land productivity improved the least in Southern Africa (excluding the Republic of South Africa), and improved the most in Eastern and Western Africa 2000-2014.

2.4 Factors influence agribusiness organization productivity

Productivity however is not determined by inputs alone. The efficiency of converting inputs into output is intervened by external conditions and in agriculture these external conditions can be categorized into two broad groups as the conditions in the natural world such as weather and climate and those in the social world such relationships, behavior, attitudes and beliefs. The efficiency which decides the rate of conversion is both socio-political and behavioral factors related. This is because neither technology nor any other input becomes part of the production process without decisions of people involved whose decisions are influenced by the social contest. Better seed and crop varieties, pesticide or fertilizer can improve productivity only if farmers decide to use them. In other words inputs are the necessary but not sufficient conditions of productivity (Mozumdar, 2012).

As many scholars suggest in different research the following factors is influence agribusiness productivity;

- **Human resources capacities:** According to Armstrong, (2010) human resource capacities are competencies (knowledge, attitudes, values and skills) to perform tasks. He argued that without the required competencies in people, a firm is not likely to achieve its goals and they make a major contribution to the growth and success of a firm. He noted that Human resource development should always be growth and performance related in that it is designed to achieve specified improvements in corporate, functional, team and individual performance, and make a major contribution to bottom-line. According to Hisrich *et al*, (2010) Human resource capacities enable the manager to understand the business environment, both internal and external. He or she does not only understand, but is prepared, equipped and ready to handle any turbulence that emanates from the environment. These include competitors, suppliers, customers, government agencies, labour organizations, and financial institutions. Hisrich *et al.* (2010) argued that the human resource capacity include managerial competencies which are sets of facts, skills, attitudes that contribute to individual usefulness. Managerial competencies are very significant to the continued existence and enlargement of an MSE. Lack of education and training was noted to be one of reasons for the low level of entrepreneurial formation and the high collapse rate of new business enterprises in South Africa (Olawale, 2010). *Human resources capacities* form one of the most significant factors for the development of small firms.
- Pandya, (2012) noted that marketing limitations of an MSE resemble other limited resources such as financial and human resources.
- ***Managerial Knowledge:*** A firm's growth is dependent on the managerial knowledge (Macpherson and Holt 2007). It is characteristic of small business that power decision are centralized at the level of owner-manager, so his or her personality, skills, responsibilities, attitude and behavior will have decisive influence on business strategy (Hisrich *et al.,* 2010). They found that improve efficiency, enable greater production, and are a source of profit for SMEs.
- ***Technology capabilities:*** Morse et al., (2007) has revealed that technological capabilities benefit MSE in several ways including enhancing MSE efficiency, reduce costs, and broaden market share, both locally and globally. Other than experience, the skills acquired at work are important factors that contribute to business success and growth. In order to meet the demands of the fast changing work environment which is typically associated with MSE, it is essential that smaller firms ensure that they are able to attract, retain and motivate high quality employees with effective transferable skills through the existence of a strategic training plan and a specific budget for training (Eveliina and Labinot, 2011). Ahmad *et al* (2011) noted that those more successful business owners have good management skills by offering a special service and paid attention to quality and design of their products or services. They further noted that cooperation with similar companies, a flat organizational structure, delegating responsibility and nurturing management capabilities are also management skills that determine business growth and success.
- ***Human capital:*** Human capital plays a crucial role in accelerating agricultural productivity by learning, applying and disseminating technical knowledge. It also influences a farmer's capability to adjust new technology in particular circumstances as a changing demand. Romer (1986) and Lucas (1988) utter theoretical settings for human capital, being worked as a dynamic force for economic growth. Jamison and Lau (1982) find that farmer's education and extension services have enhanced the production of Korean, Thai and Malaysian farms. Some studies find a reasonably weak relationship between growth and physical capital as compared to investment in technology and human capital (Zepeda, 2001).

Lopez and Valdes ,(2000*) argue* that the return of education in farming in majority of the cases is unexpectedly small. They conclude that the important contribution of education in rural areas is to set up a young generation to migrate in urban areas. However, Nehru and Dhareshwar ,(1994) illustrate that human capital development is three to four times more significant than unskilled labour.

Kessy and Temu ,(2010) argue that a firm with a skilled and well-educated workforce are probably to be more efficient and it's also noted that a well-educated and skilled workforce has more learning and innovative abilities.

There are different opinions about human capital and agricultural productivity growth but I would like to argue strongly that education, training and extension services are necessary elements for developing and increasing the knowledge of farmers and thereby creating human capital. This is because knowledge can help them to adopt proper technology as well as efficient use of scarce resources or inputs like land and water and that can increase productivity.

- ***Technological improvement***: *Technological improvement* is one of the key sources of productivity growth. It can change the production process by applying innovation, newly achieved scientific and practical knowledge and through management skills. The reason is that new technological knowledge is considered as the outcome of research (Antle and Capalbo, 1988). Therefore, investment in research and development is

most essential for increasing productivity. But it may take some times to realize the productivity gains. *For instance,* Chavas and Cox ,(1992*)* find a 15 year lag between the investment in research and its effect on productivity. The contribution of research investment in agricultural productivity is more in Sub-Saharan Africa, which is about one third of the TFP growth (Block, 1994). *The returns of research may be high* but the technology adoption rate is not always equal in different regions. For example, high yielding variety (HYV) is about 36% in Asia and the Middle East, 22% in Latin America and 1% in Africa of their total grain area (Wolf, 1987). The reason behind it is that technological progress may lead to use the superior quality inputs or to the combination of inputs, which can assist in better productivity. But, potential users of new technology are often different in different regions or even in the same agro-ecological settings. Hence, careful planning and provision for supporting infrastructures are necessary to increase adoption of new technology and to obtain the complete benefits from it.

- ***Political situation***: Political situation is also important for agricultural production. In the war time including the civil war, the economies work as the worst and most of the countries are at prices distorting policies (Nehru and Dhareshwar, 1994). This is confirmed by Velazco ,(2001) who argues that the political violence has negative effects on investment, technology, market infrastructure as well as on productivity. Recently Zerfu ,(2007) investigates the significance of governance on agricultural productivity by using household survey data from the rural Ethiopia and his result shows that the progress in governance may shrink the technical inefficiencies significantly and therefore may considerably increase the productivity in agriculture.
- ***Natural resources****:* Natural resources may also influence the agricultural productivity. Pinstrup-Andersen and Pandya-Lorch ,(1998) find that production capacity is seriously hampered by the degradation of natural resources like land and water. Excess use and abuse of irrigation water is one of the causal factors in land degradation (Anderson, 1994). Groundwater depletion, groundwater quality contamination, deforestation, soil salinity, soil erosion etc. are somehow linked to agricultural practices. Inappropriate agricultural practices, overgrazing and deforestation are also found responsible to world land degradation (Oldeman, 1992). Among the natural resources, quality land plays an important role in determining the agricultural productivity due to the constraints of area expansion and rising costs in agricultural production. Similarly there are serious agricultural productivity losses due to environmental degradation. Significant agricultural productivity losses have been accounted to soil erosion. *For example,* In Europe and Central Asia up to 40% productivity losses are attributed due to soil erosion, 25% in the United States, 25% in Nigeria, and 30% in Haiti (Wolman, 1985). Moreover, agricultural productivity may decline from 20 to 40% if temperature rises by more than 2° C in developing countries (FAO, 2009b). Therefore, government policy should be taken in response to sustainable use of natural resources for proper agricultural practices that can maintain sustainable quality land and enhance the agricultural productivity.

2.5 Constraints and opportunities of agribusiness organization

❖ **Agribusiness organizations especially found in developing country has the following constraints and opportunities as different scholar's views.**

➢ Constraints:

a) ***Adverse weather conditions:*** Frequent droughts and floods; and erratic, unreliable and unpredictable rainfall have over the last two decades adversely affected crop production in Malawi with major repercussions on economic growth and development (RMSI, 2010).

b) ***International Trade Barriers:*** Extremely strict import regulations imposed by some developed countries pose obstacles to entering the international market. This form of protectionism, which is legalized by GATT/WTO is implemented through HACCP or sanitary and phytosanitary measures.

c) ***Macro Policy: Credit Availability, High Interest Rates, and Fluctuating Exchange Rates:*** Credit became scarce and interest rates became high and Currency fluctuations have exacerbated the problem, making it difficult for exporters to plan ahead. That is why Indonesian exporters, for example, are still unable to benefit from the rupiah depreciation.

d) ***Trade Policy: Export and Import Taxes on Raw Materials:*** Some competitive products are still confronted by export tax.

e) ***High Transportation Costs:*** Due to poor road infrastructure, outdated trucking fleets and railroad equipment, high fuel costs and poor storage facilities, including cold chains.

f) ***Good Quality and Continuous Supplies of Raw Materials:*** It is difficult to maintain a homogenous quality and continuous supply.

g) **Insufficient information on quantities, qualities and prices of products*:*** Due to lack of updated technology.

h) ***Input market constraints:*** Access to inputs is limited by lack of infrastructure (roads, markets) in the rural

areas which similarly results in high transportation costs.

- **Opportunities are:**
  a) Unused arable land,
  b) Demand for food is growing fast,
  c) A lot of technologies available and ready for scaling up,
  d) Rapidly changing demands and technologies.

3. Conclusions and Recommendation

The attention focused on production of agriculture will not achieve its developmental goals in isolation from agribusinesses, ranging from small and medium enterprises to multinational companies. Agribusiness denotes organized firms—from small and medium enterprises to multinational corporations—involved in input supply or in downstream transformation. It includes smallholders and micro-enterprises in food processing and retail to the extent that they are market oriented—indeed these producers and enterprises make up the bulk of agribusiness activity in Africa today. Agribusiness organization means agriculturally related business organizations, which supplies farm inputs, such as farm machinery and seed supply and so on. Growth in agribusiness productivity is considered essential in achieving sustainable economic growth and significant level of food security in an under developed country.

Productivity differs from production. Production refers to an increase in output over a given period of time; productivity is concerned with the ratio of output to an input. Productivity is a required tool in evaluating and monitoring the performance of an organization, especially a business organization. Productivity is usually expressed in one of three forms: partial factor productivity, multifactor productivity, and total productivity. Partial factor is a measure of productivity, in the sense that it only considers a single input in the ratio, multifactor productivity is a measure utilizes more than a single factor and total factor productivity is measured by combining the effects of all the resources used in the production of goods and services (labor, capital, raw material, energy, etc.) and dividing it into the output.

Productivity levels in African agribusiness are low partly because educational levels fall well short of the standard required to achieve technical efficiency in agriculture and manufacturing. In addition to this different factors influence agribusiness organization productivity from these human resources capacities, human capital, technological changes, research and extension, political situation, natural resources and environment, workforce, knowledge and skill resulting from training and experience.

In generally, the study endeavors to draws the attention of researchers, academicians, professional, policy-makers and consultants enhance to researching on factors influencing agribusiness organizations productivity in context of developing country in general and further studies are needed to investigate agribusiness organizations contribution on national development like job creation and poverty reduction and how to internalize the available opportunities and overcome existing challenge are needed.

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