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THE ROLE OF TECHNICAL AND VOCATIONAL EDUCATION TRAINING IN PROMOTING SMALL AGRO-BUSINESS VALUE ADDITION IN TANZANIA ECONOMY

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ABSTRACT

The purpose of this paper is to explicate the role which Tanzania's Technical and Vocational Education Training (TVET) institutions can play in promoting value addition in small agro-business. The paper focuses on three research areas namely, the existing business opportunities in agro-business, Tanzania TVET institutions collaboration, and challenges encountered by Tanzania business schools in disseminating business skills basing on curricular content analysis, interview, personal observation, and experience.

It is highlighted that, not all students enrolled in TVET institutions may be prepared or able to undertake business ventures in agro-business. TVET institutions can greatly promote the Government initiatives of value addition in small agro-business by imparting knowledge and skills to graduates through developing simple machinery to aid value addition. Collaboration among Tanzania TVET institutions is important to cement business competencies of graduates. The paper also spells out the recommendations as to what TVET institutions should do to achieve these objectives.

Key words: Small Agro-Business, TVET, Value Addition, Innovation, Entrepreneurship, Tanzania

INTRODUCTION

Tanzania's economy depends largely on Agriculture which accounts for 26.9 per cent as evidenced by the country's Gross Domestic Product [GDP] (National Economic Survey, 2009). This contribution indicates the importance of agriculture.

Currently the country has made concerted efforts to improve and strengthen the agricultural sector. In the past, the sector was left to operate using traditional methods which resulted to either uncompetitive products or low production due to inadequate technology (Sumila, 2014). However in the world market, agricultural products from Tanzania do not fetch good prices due to a number of factors such as the quality of the products in terms of species, market standards, packaging, and delivery inconsistence as a result of inadequate infrastructure. Most of the time agricultural products are sold raw leading to low price in the market. Ugulumu (2008) for example shows how value addition can be a profitable undertaking in sunflower oil processing in Tanzania. The export performance during the period 2002-2012 indicated an improvement of value of traditional exports in minerals, fish and fish products, manufactured goods and oil seeds while traditional exports (cotton, coffee, cashew nuts, tobacco, and tea) were not performing well. This performance trend is shown in Figure 1. The growth rate remained constant (4.2%) for the period from 2002 to 2010, and declined by 3.6% in 2011 but improved by 4.3 & 5.3 % in 2012 and 2013 respectively (Rutasitara, 2013).

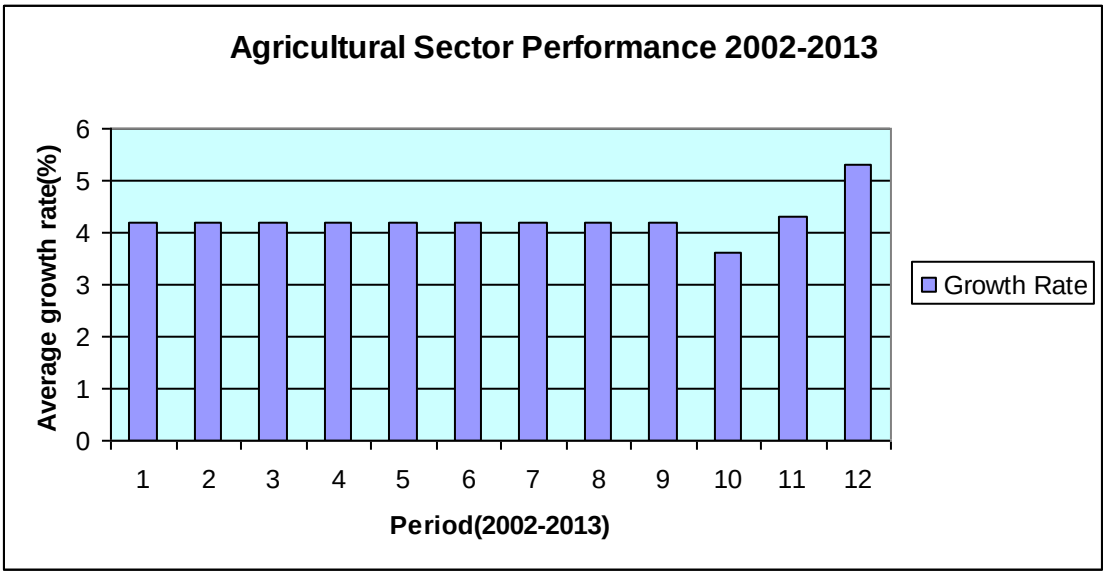

Figure 1: Agricultural Sector Performance 2002-2013

Source: Rutasitara (2013)

Declining commodity prices and an increase in demand for differentiated products in developed countries have created opportunities for growth in non-traditional food products. The production patterns have also changed and become more 'globalized'. Nowadays, different production, processing and marketing stages are located in several geographical regions of the world and are linked through various forms of coordination. Participants in agricultural products value chains are forced to compete; otherwise their participation may be compromised.

Producers in developing countries are also faced with changes in consumer concerns for food safety and quality. Consequently, the requirements for standards increase. All these changes in the market structures and consumer behaviors pose challenges for agricultural producers in Tanzania and other developing countries. At the local level, changes in the retail sector, particularly the upcoming supermarkets may affect producers participating in agro-food chains. With the increase in urbanization in Tanzania, consumer behavior is becoming more complex and producers in value chains need to respond to these changes as well. The busy life style in urban areas may demand convenience and processed foods, thus increasing the need for value added and standards. Competitive pressures require Small and Medium Enterprises (SMEs) to upgrade, otherwise their participation in value chains cannot be ensured.

Globalization has changed trade opening market opportunities and increasing the competitive pressures for producers in developing countries. Given these market conditions, firm-level upgrading or innovation can facilitate the participation of SMEs in wider markets. By upgrading processes and products, producers can enhance value chain productivity and competitiveness, increasing the benefits to SMEs. Upgrading entails not only improvements in products, but also investments in people, know-how, processes, equipment and favorable work conditions.

Recognizing the need of adding value to agricultural products, the Government of Tanzania has designed motivation methods to catalyze value addition in agricultural business. Various equipments required for use in the value addition process were tax exempted on importation; examples of such equipment include storage equipment, transportation, and distribution of compressed natural and

piped gas, processing of local hides and skins (United Republic of Tanzania, 2012-13). This suggests an increase of business activities (Tanzania Natural Gas Policy, 2012). Agriculture, education sector, energy and natural gases, water, transport and mobilization of resources are the six items recognized as drivers for Tanzania's transformation from low income to middle income level economy. The drivers have been adapted from Malaysian model of development "Big Results Now" (Staff Writer, January 20, 2015). Given the Government's efforts, what role does TVET institutions have in promoting the value addition (innovation) in small agro-business in Tanzania?

Purpose: The purpose of this paper is to explicate the role which Tanzania's TVET institutions have to play in supporting and or promoting value addition in Small Agro-business. Three areas are addressed namely, the existing business opportunities in agro-business, collaboration among Tanzania TVET institutions, and challenges encountered by Tanzania business schools in disseminating business skills.

Significance: An understanding of the role that TVET institutions have to play, identification of business opportunities, and collaboration among Tanzania TVET institutions in disseminating business skills is important. Through research, TVET institutions can inform students on the existing opportunities in agro-business appropriately.

The role of TVET institutions: The Tanzania higher learning institutions have been entrusted by the Government to prepare graduates who are creative and innovative. The purpose of Technical and Vocational Education and Training (TVET) is to provide knowledge, skills and competencies required in the world of work. Given the diversity of countries, TVET systems tend to vary from country to country and reflect specific national socio-economic situations. Effective TVET policy must therefore be embedded in the socio-economic context, encompassing various policy areas and be sufficiently flexible to ensure graduates' successful transition from school to work (UNESCO, 2013). TVETs should therefore serve the interests of the society at large.

In the Tanzanian context, TVETs have been established by Parliamentary Acts. In the Acts, the roles of TVETs are specified. For example the College of Business Education (CBE) was established by the Act of Parliament No.31 of 1965. The core activities of the College include training, provision of

services to the public, undertaking applied research, consultancy and counseling, arbitration, and engage in any other activity which in the opinion of the Governing Council's is necessary, expedient or conducive for the promotion of business in the United Republic of Tanzania (College of Business Education Strategic Corporate Plan, 2010/11-2014/15). The TVETs are also regulated by one body-the National Council of Technical Education.

The forthcoming section focuses on definitions of concepts theories and empirical studies.

LITERATURE REVIEW

Innovation: Innovation refers to the process of making improvements on the existing product/service or introducing something new which is substantially different and has a significant change. According to Leonard and Sensiper (1998), innovation is a group process. Possible innovations tend to be divided into product innovations; service innovations; and organizational (procedural or process) innovations (Alänge, Jacobsson & Jarnehammar, 1998; Damanpour & Gopalakrishnan, 2001).

Organizations innovate for the purpose of maintaining desired performance and growth through improvements in efficiency, productivity, quality, competitive positioning, market share, and excess resources (McDonough, Kahn & Barczak, 2001; Langlois & Robertson, 1995; Veugelers & Cassiman, 2004). Sources of innovation include scientific break through, new technology /technological diffusion, public research program, market niche, customer demands, rival innovations, environmental issues, and or regulatory standards (Diamond, 1997). A number of empirical studies have shown a direct relationship between innovation and company performance (Veugelers & Cassiman, 2004). However, there are factors which hinder organization innovations including nature of organization designs (Hellriegel & Slocum, 2004).

As companies continue to face strong competition both domestically and globally, their survival depend on how well they fine tune to the ever growing and changing customer needs. Organizational survival largely depends on innovations (McDonough III *et al*., 2001). While the survival of organizations is important, employees involved in the innovations may encounter barriers to innovation due to inadequate individuals' knowledge, organizations' non-supportive business processes and models (Thijssen & van der Heijden, 2003; Christensen & Overdorf, 2000). On the premise of the aforementioned barriers, innovation of new products can result to wastage of resources as they might be commercially unsuccessful (McDonough & Leifer, 1986). Since the aim of all firms is survival, sustaining commercially viable innovations is important for organizations to gain an edge over the competition (Christensen & Overdorf, 2000; Diamond, 1997). This can be achieved through proper management of individuals with knowledge-the source of firms' competitive advantage (Leonard & Sensiper, 1998; Schoemaker, 2003).

Entrepreneurship: According to Schumpeter's economic theory, innovation occurs when there is an opportunity (business) to introduce a new product, a new market, or a new source of supply of raw materials hence introduction of a new organization in an industry (Klapper, Leora & Love, 2011). Innovations are brought about by people who are creative, venturous, achievement oriented and energetic - the entrepreneurs.

Psychological theory indicates that traits such as personality, need for achievement, need for independence, locus of control, risk aversion, vision or foresight, ability to face opposition and motivation are entrepreneurial characteristics which can drive behavior change towards self-employment. Psychologists believe that entrepreneurial activities become successful when society has individuals with psychological characteristics referred here. These characteristics are formed during an individual's upbringing which stress on standards of excellence, self-reliance and minimal father dominance where a behavioral process and choices are made by an individual as a matter of feasibility or desirability (Hisrich, 2002; Kuratko & Hodgetts, 2007; Segal, 2005).

According to Bonet, Armengot, Miguel, and Martin (2011) individuals with entrepreneurial characteristics can significantly be driven to self-employment since they are: self-confident, creative, dynamic and energetic, leaders, flexible, able to calculate risk, able to get on well with people, independent, and initiative oriented. These people also, need to achieve, are optimistic, are directed towards profit, can persevere and are determined, and are receptive to suggestions and criticisms. However, Bonet *et al*. (2011) have shown that education, specifically the provision of entrepreneurship education to all students may not lead to innovativeness.

According to McClelland's (1961) motivation theory, a person has three types of needs namely: need for achievement (get success with one's own efforts); need for power (dominate, influence others); and need for affiliation (maintain friendly relation with others). Need for achievement is the most prominent to entrepreneurs; people with high achievement orientation (need to succeed) are more likely to become entrepreneurs. This is the motive behind being more intrinsic (success and competency) rather than extrinsic (money or other external incentives) factors (Mclelland, 1961).

Kumar (2011) identifies what entrepreneurs can do to the country's economy as follows.
First, promoting capital formation by mobilizing the idle savings of public; employ their own as well as borrowed resources for setting up their enterprises. Such type of entrepreneurial activities leads to value addition and creation of wealth, which is very essential for the industrial and economic development of a country. Most importantly, entrepreneurs can help to promote a country's export-trade, which is an important ingredient of economic development. The produced goods and services in large scale can earn huge amounts of foreign exchange from exports.

Second; to create large-scale employment opportunities: Entrepreneurs provide immediate large-scale employment to the unemployed which is a chronic problem of underdeveloped nations such as Tanzania. With the setting up of more units by entrepreneurs, both on small and large-scale, numerous job opportunities are created for others. As time passes, these enterprises grow and continue to provide direct and indirect employment opportunities to many more people. In this way, entrepreneurs play an effective role in reducing unemployment in the country which in turn clears the path towards economic development of the nation.

Third; to promote balanced regional development: Entrepreneurs help to remove regional disparities through setting up of industries in less developed and backward areas. The growth of industries and business in these areas lead to a large number of public benefits such as road transport, health, education, and entertainment. Setting up of more industries leads to more development of backward regions and, as a result, promoting balanced regional development.

Fourth; to reduce concentration of economic power: Economic power is a natural outcome of industrial and business activities. Industrial development normally leads to concentration of economic power in the hands of a few individuals which results in the growth of monopolies. In order to redress this problem a large number of entrepreneurs need to be developed, which will help reduce the concentration of economic power amongst the population.

Fifth; wealth creation and distribution: Entrepreneurs stimulate equitable redistribution of wealth and income in the interest of the country to more people and geographic areas, thus giving benefit to larger

sections of the society. Entrepreneurial activities can also generate more activities and give a multiplier effect in the economy.

Six; increasing GDP and per capita income: Entrepreneurs are always on the look out for opportunities. They explore and exploit opportunities, encourage effective resource mobilization of capital and skills, bring in new products and services and develop markets for the growth of the economy. In this way, they help to increase gross national product as well as per capita income of the people in a country. An increase in the GDP and per capita income of the people in a country is a sign of economic growth.

Seven; improvement in the standard of living: an increase in the standard of living of the people is a characteristic feature of economic development of a country. Entrepreneurs play a key role in raising the standard of living of the people by adopting the latest innovations in the production of wide variety of goods and services in a large scale and at low costs. This enables the people to avail better quality goods at lower prices which results in the improvement of their standard of living.

Eight; promotes country's export trade: Entrepreneurs help in promoting a country's export-trade, which is an important ingredient of economic development. They produce goods and services in a large scale for the purposes of earning huge amounts of foreign exchange from the exports in order to combat the import dues requirement. Hence, import substitution and export promotion ensure economic independence and development.

Nine; induces backward and forward linkages: Entrepreneurs like to work in an environment of change and try to maximize profits by innovation. When an enterprise is established in accordance with the changing technology, it induces backward and forward linkages which stimulate economic development in a country.

Ten; facilitates overall development: Entrepreneurs act as a catalytic agent for change which results in a chain reaction. Once an enterprise is established, the process of industrialization is set in motion. This unit will generate demand for various types of units required by it and there will be so many other units which require the output of this unit. This leads to overall development of an area due to an

increase in demand and setting up of more and more units. In this way, entrepreneurs multiply their entrepreneurial activities, thus creating an environment of enthusiasm and conveying an impetus for overall development of the area.

It is evident that developing and or supporting entrepreneurs through enabling policies and training in a country are necessary. According to Tobias (2010) entrepreneurship training programs improves innovation.

Supply Chain and Value Chain Concepts: Supply chain and value chain are two complementary concepts. It is difficult to draw clear distinctions between the two concepts as they often overlap.

Supply Chain: According to Webber & Labaste (2010), the term supply chain is used internationally to encompass every logistical and procedural activity involved in producing and delivering a final product or service, from the supplier's supplier to the customer's customer. The primary focus of supply chains is efficiency; the main objectives are usually to reduce friction (for example, delays, blockages, or imbalances), reduce outages or overstocks, lower transaction costs, and improve fulfillment and customer satisfaction. In this regard, the management aspect is paramount.

Wieland and Wallenburg (2013) define a supply chain as a system of organizations, people, activities, information, and resources involved in moving a product or service from the supplier to the customer. Supply chain activities involve the transformation of natural resources, raw materials, and components into finished products which are delivered to the end customers. In sophisticated supply chain systems, used products may re-enter the supply chain at any point where residual value is recyclable. Supply chains link value chains.

Weber and Labaste (2010) note that practitioners of the supply chain approach often overlook the extent of cost reduction and inefficiencies in the supply chain logistics and whether or not the supply chain actually adds value. The beneficiaries are sometimes not known. With expected inefficiencies in the supply chain, supply chain management is necessary (Chen & Paulraj, 2004). Efficient supply chain involves exploitation of relational strategies in a holistic way (Storey, Emberson, Godsell & Harrison, 2006).

Value Chain: According to Hawkes and Ruel (2011) value chain is a form of a supply chain where value is added to the product through value-adding activities as the product passes through the chain. These activities create value for the value-chain actors. A value chain can thus be described by what and where value is added in the supply chain for and by these activities and actors. The value involved may be the product in economic terms, to the value added to the product as it passes through the chain, or to the economic value that is created and captured by the actors in the chain or to all of these forms of value. Adding value may also refer to enhancing the benefit offered by the product relative to its price, as perceived by consumers (Hawkes & Ruel, 2011).

According to Porter (1985), value chains can be categorized into two namely: Primary activities which involve inbound logistics, operations, and outbound logistics, marketing, sales and service; and secondary activities, which include such activities as procurement, human resource management, technological development, and infrastructure (Gurria, 2012; Porter, 1985; Kaplinsky & Morris, 2001).

According to Weber and Labaste (2010), value chain describes a full range of value-adding activities required to bring a product or service through different phases of production, including procurement of raw materials and other inputs, assembly, physical transformation, acquisition of required services such as transport or cooling, and ultimately response to consumer demands. As such, value chains include all of the vertically linked, interdependent processes that generate value for the consumer, as well as horizontal linkages to other value chains that provide intermediate goods and services. Value chains focus on value creation-typically via innovation in products or processes, as well as marketing-and also on the allocation of the incremental value (Weber & Labaste, 2010).

In the context of agricultural products, FAO (2011) distinguishes value chains in terms of factors such as the final market (e.g. local retail, modern retail, regional wholesale, export), the type of product (e.g. fresh, processed, convenience, certified), or the technology used in production or processing (e.g., scale/capacity, complexity, value-added).

In this paper, the definition of value chain by Webber and Labaste (2010) is adopted. While improvements in agricultural products (value addition) are important, investments in people, know-how, processes, equipment and favorable work conditions are equally important (Fromm, 2007).
Jones and Webber (2010) assert that:

…the driver of value chain productivity is the quality of human resources available …improves productivity by investing in human resources. This may involve enhancing motivation, management, and training at the firm level, both by upgrading the overall education system and through utilizing specialized institutes. Improving the overall quality of the workforce is often seen as the mandate of government and the educational institutions, outside of the direct control of industry (Jones & Webber, 2010, p. 47).

Empirical studies: Fromm (2007) analyzed agricultural products upgrading opportunities of small producers in Honduras. Product upgrading activities of traditional primary commodity chain (e.g. coffee, cocoa, cotton), the plantation product chain (palm oil) and fresh produce chain (horticulture) undertaken by producers had impacted their performance positively in terms of productivity and profits.

Jones, Gorman and Webber (2010) analyzed the Kenyan green beans and other fresh vegetables value chain. The value chain consisted of vertical activities from the farm (small and medium growers); traders (brokers); exporters (briefcase, small and medium exporters); shipping; importers (wholesale importers) and end markets (wholesale markets). The authors indicate that the growth of Kenyan fresh vegetable export industry in size and value added is in large part by implementing new processes and operations. The business growth has been initiated by private business in response to evolving market trends, opportunities recognition, and value chain pressures. Further, opportunities were found to exist to increase the competitiveness of the Kenyan fresh vegetable export industry through value chain deepening, as well as through other approaches (for example, increasing the technical capacities and market understanding of serving growing markets beyond Europe, extending the exporting season, and reducing costs and losses through infrastructure). The realization of each enhanced process will, in turn, provide opportunity for added services within the value chain (Jones, Gorman & Webber, 2010).

In a dairy products value chain analysis in Pakistan, Jones *et al*., (2010) revealed that in several areas near urban centers, 45 percent of the milk produced in the country never reached market because, in most areas, only the morning milk-55 percent of potential output was collected. The rest-evening milk went to waste. Further, domestic demand was growing at twice the rate of supply. This analysis led to the identification of an intermediation opportunity that could be exploited by entrepreneurs-namely, investments in simple refrigeration centers for the purchase and collection of milk which allowed an increase in the quality and supply of milk, as well as providing farmers an outlet for selling it.

The literature (e.g. Leonard & Sensiper 1998; Schoemaker, 2003), indicates that among other factors, knowledge of employees is crucial in innovation and specifically to agri-business (Fromm, 2007) undertakings being the driver of productivity. This can be achieved by choosing the appropriate markets and products by adding new product features and service components that enable companies to increase the value of their product and, hence, its price. By positioning or re-positioning products in new markets or to new customers or by adding additional value (real and perceived), opportunities may be located by entrepreneurs.

In the context of Tanzania agri-business, conceptually, the value chain addition is shown in Figure 2. Specifically, this paper addresses the role of Technical and Vocational Education Training (TVET) institutions in addressing the value chain addition in agri-business in Tanzania. TVETs have the onus of imparting knowledge, skills and competencies to students in various professional specializations. The institutions have also the responsibility of arousing innovativeness, achievement orientation, and calculated risk taking of their graduates by including entrepreneurship course in their curricular. This paper contributes to the dearth of academic literature on the role of TVET institutions in promoting small-agro business value addition.

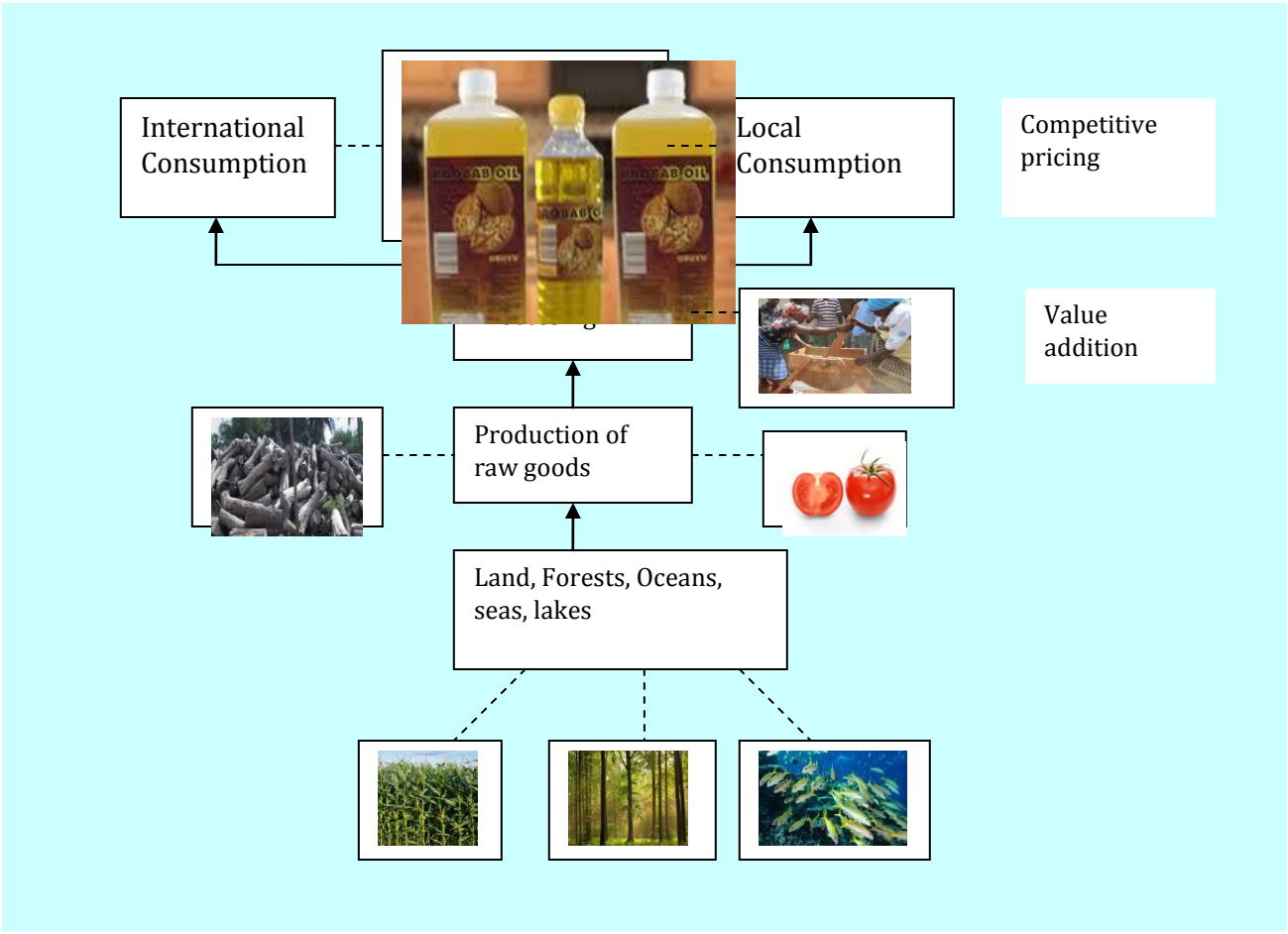

Figure 2: Value Addition Process in Agro-Business

METHODOLOGY

The purpose of this paper is to explicate the role that Tanzania's TVET institutions can play in supporting and or promoting value addition in Small Agro-business.

The paper focuses on three research questions namely, the existing business opportunities in agro-business, Tanzania TVET institutions collaboration, and challenges encountered by Tanzania business schools in disseminating business skills. Target population was TVET institutions registered by the National Council for Technical Education (NACTE). Secondary data were mainly used. The use of secondary data has advantages over the use of primary data in occasions of budgetary and time constraints (Saunders, *et al*., 2009). On the other hand, this type of data has disadvantages of not being presented in the manner the researcher wants it since it was collected for other purposes different from that of the researcher (Saunders, *et al*., 2009). For the purpose of this paper, presentation of data posed no problem since the format of curricular observed a standard format.

To address research questions one, two, and three, the curricular content of NACTE registered TVETs in Tanzania was analyzed. These institutions were obtained from the NACTE's list of registered TVET institutions website. The curricular were obtained from the prospectuses of the respective institutions in their corresponding websites. There were two categories of TVET institutions; namely, pure technical institutions like Arusha Institute of Technology and other institutions such as the College of Business Education (CBE), and Institute of Finance Management (IFM). Further, for research question two, interview with the Head of the Entrepreneurship Center (CBE) and author's complete observation was conducted. As for the research question three, the author used personal buying experience on small agro-business products that are value added.

RESULTS AND DISCUSSION ON THE POSED THREE QUESTIONS

RQ1: Do training institutions indicate the existing business opportunities in Agro-business?

The content analysis of the analyzed TVET institutions curricular does not specifically identify and address the available opportunities in agro-business. However, the knowledge of opportunity identification in general business environment is indicated for example, CBE entrepreneurship syllabus.

Making reference to Figure 2, TVET institutions can play different roles of identifying opportunities depending on the agricultural sector at hand for example, forestry, livestock, forestry, bee keeping, fishing, farming and the like.

Given the specific area of specialization, every institution can play a role of imparting knowledge and skills to students on the creation or adding value to the respective agricultural products in line with the skills and competencies development of the concerned institution such as pure technical institutions (e.g. DIT, VETA), health sector institutions, livestock institutions (e.g. LITI Morogoro), of Fish industry (e.g. Mbegani Fisheries Institute) and Business/Management training institutions [e.g. CBE, IFM etc.] (NACTE Website). Tanzania is rich in forest resources. These resources are mainly consumed locally in raw form. Instead of selling timber in raw form, creation of furniture can add more value to the timber whether in domestic or international context. This opportunity is open to TVET institutions like the Dar es Salaam Institute of Technology, Arusha Institute of technology and the like.

Investment in **agro-processing industries**; this entails adding value and improvement of standards and quality. As seen earlier, agriculture in Tanzania is dominated by primary production with negligible value adding especially at farm level. Many farmers sell their produce unprocessed leading to the majority of them obtaining low prices. Losses are sometimes high especially for perishable crops as they may not be stored for a long time in their raw form. Value addition to agricultural products through processing would increase rural incomes by adding values to their products. Processing also increases the shelf life of products thus offering more marketing opportunities as the

commodities may be stored for a longer period. On the other hand, agro-processing offers an alternate employment opportunities thereby contributing to poverty alleviation.

According to the Ministry of Industry and Trade (MIT), the under-mentioned areas are potential for value addition opportunities:

i. Fruit/Vegetable processing-There is significant potential for investment in large scale farming and processing of fruit and vegetables for the local as well as export market. A large variety of fruits and vegetables are produced in Tanzania. The most important fruits include mangos, oranges, pineapples, passions fruits, bananas, avocados, jackfruits, papayas, peaches, pears, guavas and grapes. The main vegetables include tomatoes, okra, chilies, and the like. Of the 2.75 million tons of fruits and vegetables produced annually only 4% is processed.

ii. Cashew nut processing: Cashew nut is the major cash crops grown in Tanzania and whose production has risen to 120, 000 tones annually. Only about 10% of the cashew nut produced within the country is processed. Processing may be carried out by rehabilitating the old plants or by establishing some medium scale processing plants.

iii. Oil seeds: Tanzania still imports a lot of edible oil. Processing of oilseeds locally is important to capture the market. The common oilseeds produced in the country include sunflower, sim-sim, ground nuts, palm oils, and the like (Ministry of Industry and Trade, n.d.).

MIT observation is in line with the observation made by Hawkes and Ruel (2011) who indicate the importance of analyzing the supply chains of agro-business and consequently identifying the value addition opportunities.

Pursuant to the acts of establishing Tanzanian TVET institutions, the role of guiding students where business opportunities exist is important. The introduction of Entrepreneurship subject in most Tanzanians TVET curricula is based on the understanding that entrepreneurs spark economic activities by their entrepreneurial decisions. Recognizing the critical ability of entrepreneurs, imparting entrepreneurship skills to students is expected to create individuals who can develop ideas and put them into action hence fostering economic growth and development of a country (Kumar 2011). Instilling an entrepreneurial mindset in young people by TVET institutions carry benefits far beyond the level of an individual. Inspired, self-confident, and talented entrepreneurial graduates are more

likely to start and lead new dynamic Agro-business enterprises(small & big) and may have the capacity to transform the value of the products and successfully lead and manage agro-business enterprises (Republic of South Africa, 2005).

Empirical studies from other countries indicate advantages of value addition in agricultural products in terms of productivity and profits namely upgrading of coffee, cotton, palm oil, horticulture in Honduras (Fromm, 2007); Green beans and other vegetables in Kenya; and dairy products in Pakistan (Jones, Gorman & Webber, 2010).

RQ2: Do TVET institutions in Tanzania collaborate with the aim of supporting value addition in Agro-business in Tanzania?

The curricular content analysis shows that TVETs in Tanzania have diverse areas of specializations (NACTE Website). Institutions which are purely technical may successfully impart agro-business value addition competencies and skills to their graduates by creating machinery for value addition. These may not be sufficient since getting into the market, business knowledge and skills may be necessary. It is recommended that these institutions collaborate with business/management TVET institutions in order to effectively promote Government's efforts of value addition to agro-business in Tanzania. Innovation/value addition efforts should be shared. Useful knowledge and competencies may not be found in one institution but from different other places. In this case, TVET institutions should identify, and link in order to strengthen internal knowledge capacity in the process of value addition/innovation (Oliveira & Alves, 2014). Further, collaboration should not be limited to TVETs institutions alone. Other sectors may be involved as well.

At the College of Business Education, an entrepreneurship center has been in existence since 2005 with the purpose of supporting entrepreneurs in the society. The Center has been inadequately performing (Author's complete observation, 2005-2014). Interview with the Head of the Center, budgetary constraints due to donor dependence were found to frustrate the centre's operations. The Center has been conducting outreach courses to the society to address this problem. In collaboration with Small Industries Development Organization, the Center is well placed to provide business knowledge and skills to entrepreneurs in food processing. Food processing adds value to agricultural products (Ministry of Industry and Trade, n.d.). On the part of entrepreneurs in the food processing,

the Center has been encountering problems of accommodating entrepreneurs' time schedule in the training programs timetable (Head of the Center).

The adoption of the talent identification of students by CBE from enrolment stage, the Center can mentor the- would be self employed graduates towards value addition of agro-business. The Center can be a good link or partner with other TVET institutions to disseminate business knowledge and skills to graduates in pure Technical and Vocational Education Training institutions in Tanzania. Collaboration among higher learning institutions is highly supported (Akonkwa, 2013), and that institutions should not consider themselves as competitors but as partners working towards a national goal of producing graduates who will competently employ themselves, create employment for others, and contribute to public revenue generation. In this case for example, the College of Business Education would then fulfill one of its roles of promoting the Government's efforts of value addition in small agro-business.

RQ 3: What are the challenges encountered by business schools in the course of disseminating business skills to the society?

The content analysis of some of the existing TVET institutions curricular in Tanzania indicates that entrepreneurship subject has been a cross-cutting subject among all specializations. This is a step forward to TVET institutions in Tanzania. However, there is a challenge of whether we have the right capability in this area. Inadequacy of professionals in this area may limit the appropriate guidance to students (Olomi, 2009) as to opportunities identification. Basing on students' individual initiatives, a few can make use of the existing agro-business opportunities. It would be appropriate for TVET institutions to exert a purposeful initiative of identifying students with innovative talents and guide them appropriately right from the enrolment stage. Such an undertaking will assure TVETs to come up with graduates who may opt for self employment in agro-business.

Identification of such talents concurs with Bonet *et al.* (2011) that education, specifically; the provision of entrepreneurship education to all students may not lead to innovativeness in agro-business in Tanzania. It is therefore important to conduct personality (talent identification) tests to new entrants.

In addition, TVET institutions have to seriously address ethical issues. Of recent, Tanzania's public has been complaining of ethical problems (President's speech during May Day, 2014). TVETs are required to emphasize on the ethical aspects as they train the students. The value addition process in agro-business is prone to ethical infringement. In the value addition of timber for example, furniture industry, as a client I have experienced ethical problems of buying furniture made of softwood in the pretext of hard wood. The soft wood was painted to adapt the hard wood appearance. Similarly in honey value addition through packaging, some small agro-business entrepreneurs contravene ethical values by mixing honey with other ingredients hence reducing the value of the product. In this case these entrepreneurs may miss a long time survival in business given that the competition of honey products in the Tanzanian market from imported products is growing (Mwakatobe & Mlingwa, n.d.). The imported products are well packed with ingredients of the product well specified.

CONCLUSION AND RECOMMENDATIONS

The purpose of this paper was to explicate the role which Tanzania's TVET institutions can play to promote value addition in small agro-business. The paper focused on three research areas namely, the existing business opportunities in agro-business, Tanzania TVET institutions collaboration, and challenges encountered by Tanzania business schools in disseminating business skills.

TVET institutions can greatly support the Government initiatives of value addition in small agro-business by imparting knowledge and skills to graduates such as developing simple machinery to aid value addition for example the oil seed pressing machines (pure technical institutions). Collaboration among Tanzania TVET institutions is also important in cementing business competencies of graduates. Entrepreneurship subject though taught in all course specializations in Tanzania's TVET institutions for the purpose of developing entrepreneurial mindset in graduates, this may not be enough because not all students enrolled may be prepared or able to undertake business ventures in Agro-business. It is therefore recommended that TVET institutions identify students with innovative and creative talents at the enrolment stage and develop them. This can be achieved by using talent identification tests for example, personality tests. As part of education, TVETs should address ethical issues as they train their students on value addition in small agro-business.

Further, through research TVET institutions should establish and appropriately guide students on the existing business opportunities in agro-business supply and value chain.

Policy Implications: There is a need for assistance to build capacity of TVETs employees on entrepreneurship skills and agro-business chains for long time sustainability. The Government should allocate funds to these institutions to promote value-added ventures.

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