THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Relationship between Value Addition Strategies and Growth of Women Owned Agri-Based Enterprises in Rural Areas in Kenya

Rozilla Adhiambo

Ph.D. Student, Jaramogi Oginga Odinga University of Science and Technology, Kenya

Maria Onyango

Associate Professor, School of Business and Economics,
Jaramogi Oginga Odinga University of Science and Technology, Kenya

Dr. Vitalis. A. Mogwambo

Chairperson, Department of Accounts and Finance,
Jaramogi Oginga Odinga University of Science and Technology, Kenya

Abstract:

Value addition is a strategic approach to enterprise development that is perceived to influence growth of new enterprises while creating jobs for owners and their employees. Technological applications are cited as a challenge to rural women business owners in terms of accessibility and cost. On the other hand, value addition could maintain the vibrancy and sustainability of agricultural production sector. In most African countries including Kenya, rural agriculture is highly feminized; the bulk of rural agribusiness is women owned. Enterprises' value rating and competitiveness depend on value addition strategies selected for use by business owners. In agricultural production, rural based enterprises apply a wide range of post-harvest value addition options within their means to remain competitive. Vast literature suggests that rural economic growth can be best achieved by promoting women agri-based activities. It is estimated that upto 95% small scale agricultural production is lost in post-harvest wastages; post-harvest value addition reduces post-harvest wastages which go hand in hand with catalysis of promotion of rural women enterprises. Kenya's agricultural production is dominantly marketed at primary production with limited value addition. The study explored the relationship of value addition strategies and growth of women owned agri-based enterprises in rural areas in Kenya through the following four objectives: to establish the relationship between the packaging strategy of agricultural products and the growth of women owned agri-based enterprises in rural Kenya; to establish the nature of valued additions in women owned agri-based enterprises. The study used stratified survey research design and anchored on business growth model, the organizational life cycle theory, resource-based view theory and porter's value chain theory. The study targeted 1626 women business owners out of whom 488 respondents were selected using stratified sampling method and purposive sampling for the 13 key respondents sampled from a total of 35. Quantitative data was collected using questionnaires, while interview schedules, observation schedules and focus group guide were used to collect qualitative data. Statistical Package for Social Sciences (SPSS) was used to perform statistical analysis and results were analyzed using descriptive and inferential statistics. The study found a positive and statistically significant relationship between packaging strategy and growth of rural women owned agri-based enterprises ($r=0.956$; $p < 0.05$). The qualitative analysis revealed that value addition is determined by stakeholders' support in availing appropriate technology, finances, infrastructure and that traditional methods of value addition are less likely to meet quality standards set by highly bureaucratic costly government procedures in order to promote growth of enterprises. It was concluded that growth of women owned agri-based enterprises had a confluence with the value addition strategies used as was demonstrated in positive correlation. The study recommends more support on use of technology in value addition strategies for competitive advantage and growth of women owned agri-based enterprises in rural Kenya. Further research should target other counties of Kenya for comparative findings on variety of strategies of value addition used on agricultural products processed by women in these other zones. Future studies should focus on establishing and evaluating influence of value addition practices on large organizations for comparative purposes.

Keywords: Relationship, value addition strategies, growth, agri-based enterprises

1. Background to the Study

Value chain concept initially originated from the USA alongside the manufacturing industry as an instrument for identifying the value of each step in the production process (Mrema & Ndikumana, 1988). Rural agriculture in many nations including Kenya is highly feminized. FAO (2011) reported that rural agriculture is dominated by female labour force therefore the opportunity of spurring rural development largely rests with promoting rural women

entrepreneurship and managing post-harvest wastages. Alam et al. (2011) study in Malaysia on barriers to food processing finding was that financial barriers have the most important impact on the SMEs growth.

African Agricultural development has largely been dominated by on farm production issues where 75% of the agricultural work is done by women Prakash, (2003). A study conducted in Ghana by De Mooj & Hostede (2010) finding was that women entrepreneurs who engaged in the cowpea street food sector earn incomes 4 times and 16 times higher than the minimum legal wage in Niamey and Kumasi in Nigeria, respectively.

Kenya has a large agro-processing industry, and European farmers set up institutions to support post-harvest processing; marketing and value addition of their produce in the 1940s and 50s. The 1992 and 1997 sessional papers highlighted benefits that made promotion of MSEs as a crucial strategic tool to the development of a labour-surplus (primarily agricultural) economy and inclusion of women and youth respectively. More private sector involvement was to be encouraged as a result of the sessional papers. According to Wanjohi (2009), the Kenya government has further created institutions such as Kenya Agricultural Research Institute (KARI), Kenya Agricultural Productivity Programme (KAPP) and Traditional Food Crops Project (TFCP) to help farmers in value addition in the agricultural sector (Ntale, Litondo & Mapopa, 2014).

Western Kenya is endowed with rich resources in land, climate and soils therefore relies on agriculture as a main source of livelihood. The poverty index is approximated on average at 42.52 % compared to the National poverty index at 36.1% according to the Economic Survey report (ROK-KIHDS, 2018).

1.1. Statement of the Problem

While the Agriculture sector is expected to expand employment opportunities in Kenya to reduce poverty level which is at 36.1%, minimal budgets are provided to support female entrepreneurship in food processing through technological applications. Agro-processing and value addition are not being utilized strategically as opportunities for exploiting agricultural potential of SMEs. Using value chain model, women business owners have an opportunity to tap on the horizontal and vertical coordination as strategic approaches for competitive positioning. However, there is the lack of a correct financing mechanism and the lack of targeted policymaking and government support of the rural entrepreneurship hindering the cycle of the value chain to develop rural entrepreneurship. There is growing concern that technology and innovation (TI) can significantly contribute to development but TI policies lack a gender perspective therefore remaining an underdeveloped resource. Ntale et al (2014) studied factors that influence value addition on small farms in Kenya's agrarian economy with the finding that limited value addition was due to financial limitations. Their study did not examine the approaches of specific value addition strategies to growth of agri-based enterprises which the current study addressed. A study on expansion of market access using value addition in selected agricultural value chains: the role of Integrated Agricultural Research for Development (IAR4D) in the Lake Kivu Pilot Learning Site found that value addition and processing of banana and Irish potatoes increased efficiency of marketing the products because of value added to primary production in Rwanda and the Democratic Republic of Congo (DRC) (Birachi, 2013). While this study recognized value addition, it did not articulate the nature of approaches used as opportunity of enabling value to raw products and how they relate to growth of agri-based enterprises which has been addressed in this study. According to (Salami, 2010), women enterprise activity play key role in the lives of Kenyan rural households that is estimated at 70% SMEs, this further stimulated directing this study on rural based agri-businesses. This segment is constrained by lack of access to finance and technology for various reasons yet SMEs have a potential for growth locally as well as entry into international markets.

1.2. Objectives of the Study

The general objective of the study was to establish the relationship of value addition strategies and growth of women owned agri -based enterprises in rural areas in Kenya. The study was guided by the following specific objectives:

- To establish the relationship between packaging strategy of agricultural products and growth of women owned agri- based enterprises in rural Kenya
- To establish the nature of value additions in women owned agri-based enterprises

1.3. Research Hypotheses

The following study hypothesis guided the study.

- H₀₂ There is no relationship between Packaging strategy of agricultural products and growth of women owned agri-based enterprises in rural Kenya

1.4. Significance of the Study

The study will inform extension service providers on the strategies for human value improvement especially rural women in order to position them to use scientific and technological information to improve their economic status through considering value for their products' Packaging, and Value adding. The output of the research will be instrumental to the government to develop specific policies to SMEs for adequate resourcing and incorporate a women's entrepreneurial dimension. This study will add reliable data to enhance government collection and analysis of rural women's enterprises to understand their needs and realities and inform policies, including generating better indicators, programme/project evaluations, lessons on what does or does not work and why, and feedback mechanisms.

1.5. Scope of Study

The study targeted rural women business owners engaging in agri-based business from selected counties in western Kenya. The selected counties included Kisii, Homabay, Vihiga and Siaya who were all members of the regional economic bloc that aim to spur economic growth through policy harmonization and resource mobilization. They also have similar value chains and their CIDPs have included value addition.

2. Limitations and Delimitations of the Study

The study had geographic limitations focusing only on selected western Kenya counties of Siaya, Vihiga, Homa Bay and Kisii. This implies that the results cannot be generalized Kenya wide; however, the trends in findings provide priceless information for understanding women entrepreneurship trends. Methods of data collection were also more qualitative and dynamic further limiting generalizations but provide uniqueness from the respondents.

2.1. Theoretical Review

The business growth model by Neil et al (1983) defines a business growth model as having five stages. In this study the growth of women owned agri-based enterprises is also indicated by the number of jobs created and profitability realized which positions the enterprises at the survival stage. Most models developed by scholars such as Ansoff hold the view that organization life cycle theory is comprised of four or five stages. Firms at any stage of the life cycle are impacted by external environmental circumstances as well as internal factors. This theory explains the existence of the women owned agri-based enterprises in this study as having a life cycle dependent on the viability of the strategic management of products being produced. The resource-based view (RBV) of Wernerfelt (1984) suggests that competitiveness can be achieved by innovatively delivering superior value to customers with collections of unique resources and capabilities that are valuable, rare, inimitable and non-substitutable and able to provide them with a sustainable competitive advantage (Amabile et al, 1996). This theory has enabled the study to explain the how the women owned agri-enterprises access and utilize knowledge, equipment, mentorship, to, package, create valuable, rare and inimitable products that are non-substitutable by external competitors. (Teece et al, 1997).

2.2. Empirical Review

A study conducted in Brazil by Mendonca & Alexandre (2013) finding was that diversification reached its goals of generating sustainable growth, reduce business risk, obtain solid 'Market Share' in Brazil for all its products, adequately re-position the company in the market and surpass the results achieved by its competitors in the country market

Ugonna and Jolaoso (2015) study finding was that the tomato processing factories lacked appropriate packaging materials as fresh tomatoes were packed in baskets for transportation to the market and end up being stacked on top of each other, resulting in many injured fruit and profit losses which affected growth of SMEs. A study commissioned by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) (2013), focused on food loss in the harvesting, processing and marketing stages established that extended bags have severe impacts on the price of potatoes. A study by Subramniam & Islam (2016) examined how women entrepreneurs in Singapore have built an innovative organizational culture and how they have used technology to grow their businesses. The findings show that the women entrepreneurs who were interviewed were very innovative and also open to adopting new ideas and technology to improve and grow their business.

Ranjan et. al. (2013) explored the influence of training on value addition knowledge of women farmers in Bangalore Rural District of Karnataka state, India. The Study finding was that education level of participants, post-harvest knowledge and attitude towards value addition contributed to improving the positive impact of training. Muthathai (2017) study in Kenya purposed to establish the factors influencing the growth of women owned businesses in Kenya. The results on financing showed that lack of capital was one of the problems affecting the growth of women owned business. In addition, most women ran their businesses themselves without support from any supporting group.

3. Research Methodology

This research is anchored on the philosophy of positivism and interpretivism. The philosophies complemented one another and enriched the data collected. This study borrowed from Antwi and Hamza study (2015) on qualitative and quantitative research paradigms in business. Antwi et al (2015) concluded that the two major and most popular forms of research are qualitative methodology, which is grounded on interpretivism paradigm and quantitative methodology (positivist).

The study targeted 1,626 rural women business owners whose enterprises were registered according to the records from social development services officers (CIDP 2018-2022 Kisii, Homa bay, Vihiga, Siaya) in 4 counties in western region of Kenya, engaged in strategic approaches and links various value chains specifically for groundnuts, sweet potatoes, bananas, poultry, Mangoes, indigenous vegetables and sugarcane while key informant were 35 from the 4 counties. The sample size was 488 respondents and 13 out of 25 key informants selected using stratified sampling method approach which borrows from Krejcie and Morgan formulae (1970). The validity of the instruments was based on content validity while construct validity, was further demonstrated by using content analysis, correlation coefficients and piloting of the instruments. The analysis revealed high positive correlation $r=.956$; $p < 0.05$) between packaging strategy and growth of women owned agri-based enterprises. The Pearson's correlation coefficient (r) was used to measure the strength of the relationship between each of the independent variable, packaging strategy, with the dependent variable which according to this study is growth of women owned agri-based enterprises.

Qualitative data was analyzed through content analysis, results of which was used to gain in-depth understanding of and to provide clarifications on the findings of the survey research using the questionnaire instrument.

4. Results and Discussions

4.1. Quantitative Data Analysis

4.1.1. The Relationship of Packaging Strategy and Growth of Women Owned Agri- Based Enterprises

Below are responses on agricultural products' packaging strategy relationship and growth of women owned agri- based enterprises.

	Y	%	N	%
Whether they package	354	81.75	79	18.24

Table 1: Whether Packaging is Done
Source: Researcher (2019)

Table 1 shows 81.75% of the respondents use packaging and those who do not use packaging for products to add value were 18.24%, this shows no packaging as additional value is added to the agricultural products.

Ugonna et al (2015) finding that appropriate packaging was important as a value addition strategy is in tandem with the current study, however diverged from Manalili et al (2011) study finding that P should be added to the 4 Ps of marketing (product, price, place, promotion) for product differentiation and missed to identify packaging as a strategy for adding value.

Source of Knowledge on Package Skills	5		4		3		2		1	
	F	%	F	%	F	%	F	%	f	%
Other entrepreneurs	116	26.78	35	8.08	110	25.40	193	44.57	80	18.47
Attending trainings	219	50.57	109	25.17	42	9.69	32	7.39	21	4.84
Materials Preference for packaging	205	47.34	70	16.16	40	9.23	48	11.08	70	16.16
Adherence to ban on polythene packaging	180	41.57	65	15.01	77	17.78	62	14.31	48	11.08

Table 2: Packaging Skills, Training, Material and Adherence to Government Ban on Polythene
Source: Researcher (2019)

Key: F-Frequency for the 4 counties combined, % - Percentage for the 4 counties combined
Y-Yes, N-No

(5) Extremely important (4) Very important (3) Moderately Important (2) slightly Important (1) less Important

The responses in Table 2 showed that 89.3% of the respondents sourced for packaging knowledge through trainings while 7.14% did not. Those who sourced for knowledge from other entrepreneurs were 28.40% while 71.59% did not.

The finding is that more women business owners mainly learn about packaging skills through trainings than from other entrepreneurs. This corroborates Sievers and Saarelainen study for ILO (2011), finding that value adding off-farm activities in rural areas, such as packaging, increases the worth of a product and can increase the economic gains for rural producers.

Table 2 shows that 68.12% of the respondents have packaging material preference and they mentioned preference for non polythene package in response to the Kenya government ban. while those with no specific preference of materials, 31.87% could not afford packages and used what was available. Nedelea et al (2009) study finding that successful managers continuously seek new opportunities, always acting on those they find more appealing to their clients the impact of packaging materials on product attraction to customers is knowledge added.

Table 2 also indicates responses that, 87.75% adhered to ban on polythene for packaging while 12.24% did not, they further explained that their expenditure on packaging had compelled them to use prescribed packaging in the market which were very expensive for them. This is consistent with Esioubu (2017) study which established that packaging cost was prohibitive. The findings were that rural women business owners were adding value on agricultural products using varied packages, preferred materials, customer demands, trainings and other entrepreneurs to learn as packaging strategy. The other finding is that the government ban on polythene as a policy has contributed to the high cost of packaging. Compliance to legal framework provides legitimacy to micro enterprise operations according to a study by Simion, (2018).

4.1.2. Correlation Analysis of Coefficient between Packaging Strategy of Agricultural Products and Growth of Women Owned Agri- Based Enterprises

To address the first objective of the study, the null hypothesis 'There is no significant relationship between packaging strategy and growth of women owned agri-based enterprises in rural Kenya.' was tested. To do this a correlation analysis was conducted. The set scores on the packaging strategy as the independent variable while scores

from growth of rural women entrepreneurship was used as the explanatory variable (dependent variable). The results of the correlation are presented in Table 3.

		Growth of Women Owned Agri-Based Enterprises	Packaging Strategy
Growth of women owned agri-based enterprises	Pearson Correlation	1	.956**
	Sig. (2-tailed)		.000
Packaging Strategy	Pearson Correlation	.956**	1
	Sig. (2-tailed)	.000	
	N	433	433

Table 3: Correlation Analysis of Coefficient between Agricultural Products' Packaging Strategy of Agricultural Products and Growth of Women Owned Agri- Based Enterprises
Source: Researcher (2019)

The Pearson Product-Moment correlation coefficient ($r = .956$) computed (Table 4.8) indicated that there was highly positive correlation between packaging strategy and growth of women owned agri-based enterprises in rural Kenya. The analysis revealed highly significant ($p < 0.05$) positive relationship between packaging strategy and growth of rural women entrepreneurship. Hence it is acceptable to reject the null hypothesis and conclude that there were significant positive association between packaging strategy and growth of women owned agri-based enterprises.

4.2. Qualitative Analysis

4.2.1. Value Added to Agricultural Products by Women Owned Agri-Based Enterprises

This section presents the results of the analyzed data on the second objective about the nature of value added to agricultural products by women owned agri-based enterprises. The data comprised of responses from rural women respondents, FGDs and key respondents in four counties in Kenya. These responses were collected using questionnaires, interview schedule, discussion questions observations and pictures of products that the researcher took. The study results indicated that a large majority of the respondents (73%) change the form of agricultural products by processing before taking to the market (see Figure 1 below).

Figure 1: Whether Enterprises Processed Raw Products before Taking to the Market
Source: Research Data, 2019

The FGD discussions revealed that they sourced the raw agricultural products fresh from farmers and their own farms. Various methods of value addition on agricultural products were commonly used as the study revealed.. Sorting method was done based on size and weight of the product. The objective of sorting and cleaning was to increase the price value of the products in order to increase the incomes of the farmers while drying was applied on indigenous vegetables to prolong the shelf life and easy to pack.

Drying of sweet potatoes, groundnuts, and bananas according to a key respondent from Kisii County, was applied in order 'to make it easy to be ground into flour.' Sprinkling indigenous vegetables with water was mainly used in Vihiga and Siaya counties in order to maintain the freshness of the products. Poultry (mainly chicken) 'were defeathered and chopped into pieces before different parts were sorted together. This was meant to make it easier for the farmers to pack the products.

A five-point Likert scale was used to rank the key factors that influence value-adding activities among women owned agri-based enterprises. The participants ranked eight key factors as extremely important, very important, moderately important, slightly important, or less important. Weights were assigned to the responses ranging from 5 for extremely important to 1 for the less important choice. For the purpose of computing and interpreting the weighted means that were used in ranking the key factors, the table 4 below presents the scale of weighted average and its interpretation.

	Weighted Average	Result	Result Interpretation
Ranking Scale	4.20 – 5	Extremely important	Extremely influential factor considered when selecting a value-addition activity These included high demand for agro-processed products, Ease in distribution, generation of profits, ease in marketing
	3.4 - 4.19	Very important	Very influential factor considered when selecting a value-addition activity These included Training on agro-processing, Knowledge on agro-processing
	2.6 - 3.39	Moderately Important	Moderately influential factor considered when selecting a value-addition activity This included access to agro-processed products
	1.80 - 1.59	slightly Important	Slightly influential factor considered when selecting a value-addition activity This included adequate finances for agro-processing
	1 - 1.79	less Important	Less influential factor considered when selecting a value-addition activity

Table 4: Key Factors Influencing Value Adding Activities

Source: Researcher 2019

The results of the ranking presented in Figure 4 below shows that the high demand for agro-processed products (weighted mean= 4.78) was ranked the most influential factor in determining whether to engage in value addition activities or not. Despite the high costs of agro-processing, adequate finances were ranked lowest among the eight key factors.

Figure 2: Factors Influencing Value Adding Activities

Source: Research Data, (2019)

4.2.2. Technology Access and Use

Access and use of technology play a major role in value addition of agricultural products. Key respondents from Siaya County confirmed that Siaya Agriculture Technology Development Centre (ATDC) incubates willing entrepreneurs, groups or individuals, till they establish their enterprises. In Kisii County, KIRDI provided the infrastructure for processing food products at a subsidized service fee and enabled women owned agri-based entrepreneurs to expand their knowhow on the use of food processing equipment and technologies.

The study revealed that not all entrepreneurs who require machines for value addition can access them easily in Kisii County women travelled about 66.6 kilometers from Migori town to access the large machineries for drying, grinding, juicing and sealing packages in order to process and package mango juice. This increased production costs besides reducing product competitiveness and profits. This finding is consistent to findings of the Negi (2013) study that

revealed lack of access to appropriate technology and processing plant for the processing of raw material produce in rural areas because of the prohibitive cost of technology.

Kisii County government had provided solar dryers for drying indigenous vegetables and other food products to prolong their shelf life. Vihiga County explained that they use traditional methods for ripening bananas by placing them under the soil with ripe avocados. They state that the challenge they encountered in using this traditional method was *'in realizing a uniform yellow color that is clear of black spots after ripening.'* This shows how poor technology affects product's quality.

As the figure 5.4 below shows, 37% of the respondents indicated that they do not use technology for agro-processing.

Figure 3: Whether women Entrepreneurs Used Technology for Agro processing

Among the those who use technology, only 24.94% use equipment/machines. In addition, only 37.64% rely on knowledge technology (see figure 4.5 below). This shows that few rural women business owners rely on equipment or knowledge technology. processing plant for raw material produce in rural areas because of the prohibitive cost of technology.

Figure 4: Use of Knowledge or Equipment Technology
Source: Researcher, 2019

According to key respondents, trainings have been provided on packaging and quantification in Vihiga, Kisii, Siaya and Homa bay counties. Furthermore, Kenya Industrial Research Development Institute (KIRDI) has linked Kisii County to Kenya Bureau of standards (KEBs) for certification as key respondents mentioned. Key informants in Vihiga and Siaya counties acknowledged that women entrepreneurs were trained on processing activities, product preservation, and food safety measures.

The study revealed that women owned agri-based enterprises packaged their value-added products as it made it easier to sell besides opening new market channels. Moreover, it enables customers to have wide variety of products from which they can choose.

4.2.3. Summative Conceptual Theory

From the data analysis that has been summarized in the concept map below (Figure 3.6), the following are some of the deductions that can be made.

- The nature/value added to agricultural products by women owned agri-based enterprises is not determined by abundance of agricultural products but stakeholders support in availing an appropriate technology.
- Traditional methods of value addition are less likely to achieve the objectives of value addition in the modern world due to their failure to meet quality standards set by highly bureaucratic and costly government procedures.
- The traditional methods of value addition are less likely to receive financial and training support from government and other organizations even though they have been widely practiced in women owned agri-based enterprises in rural areas.

- Though financing for agro-processing is cited as the least influential factor in value addition activities, the unpaid labor and other commitments that deny women training and linkages create a room for exploitation of women owned agri-based enterprises by brokers.

Figure 5 below is a presentation of the value addition concept graphical presentation derived from the qualitative analysis.

Figure 5: The Value Addition Concept Map

Source: Researcher, 2019

4.3. Conclusions and Recommendations

Increased packaging skills and technology in form of knowledge and equipment, type of materials and customer preferences and government support positively relates with the growth of women owned agri-enterprises. Stakeholders should major in providing technologies specific to strategies used by women owned enterprises as they use varied methods. The study recommends that affordable modern technology should be availed to rural women enterprises with appropriate training on use to meet quality product standards set by bureaucratic government procedures.

4.4. Suggestions for Further Research

This research was a survey, there is need for comparative study design to show the variations in use of value addition strategies in different counties. Future studies should focus on establishing and evaluating influence of value addition practices on large organizations for comparative purposes.

5. References

- Alam, S.S., Fauzi, M., Jani, M., Senik, C. Z., Khairy, A., Domil, A.(2011). Assessing Barriers of Growth of Food Processing SMIs in Malaysia: A Factor Analysis. *International Business Research* Vol. 4, No. 1;
- Ansoff, I., & McDonnel, J., (1990). *Implanting Strategic Management* London: Prentice
- Antwi,S,K, Hamza, K.(2015). *Qualitative and Quantitative Research Paradigms in Business Research: A Philosophical Reflection*.
- Birachi,E.,Karume,K,Kyamuhangire.Churi,W.,Mugabo.,Tumwesigye.J.K.S.,Kasenge,V.,Bonabana,J.,Tenywa,M.,Nyamwaro,O.S.,Bikuba,G.,Habumugisha,P.,Lubanga,L.,Byamukama,J.,Nyamurin,B, Mandefu, P., Gafaranga, & Kamugisha, J,R .(2013). 'Expanding market access and value addition in selected agricultural value chains: The role of IAR4D in the Lake Kivu Pilot Learning Site,' *African Journal of Agricultural and Resource Economics* (Volume 8 Number 3).
- De Mooij, M., Hofstede, G.(2010).The Hofstede Model: Applications to Global Branding and Advertising Strategy and Research. *International Journal of Advertising*. (Vol. 29, no. 1). ISSN: 0265-0487.
- Esiobu, C. E.(2017). Indigenous technology and Rural Women's economic empowerment in Sub-Saharan Africa; *Journal of indigenous knowledge: Other ways of knowing*.
- GIZ, (2013). *Post-Harvest Losses in Potato Value Chains in Kenya; Analysis and Recommendations for Reduction Strategies*.
- Krejcie, R.V., & Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*,(30, 607-610).
- Manalili, M.N., Dorado, A.M., Otterdijk, V. R. (2011). *Appropriate Food Packaging Solutions for Developing Countries*.

- x. Mrema,G,C., Ndikumana, J. (1988).Value Addition and Post-harvest Processing in East Africa over the Past Fifty Years and Prospects for the Future.
- xi. Nedelea, S., Paun,L. A. (2009). The Importance of Strategic Management Process in the Knowledge Based Economy; Review of International Comparative Management.
- xii. Neil,C,C,. Virginia, L, L.(1983) The Five stages of Business growth, Entrepreneurial management Magazine Article.
- xiii. Negi, S (201).Food Processing Entrepreneurship for Rural Development: Drivers and Challenges; Publisher by Tata McGraw Hill Education, New Delhi, Editors. Ntale1, F.J., Litondo, O. K., Mapop,O.M.(2014).Indicators of Value Added Agri-Businesses on Small Farms in Kenya: An Empirical Study of Kiambu and Murang'a Counties; Journal of Small Business and Entrepreneurship Development December 2014,(Vol. 2, No. 3 & 4), ISSN: 2333-6374.
- xiv. Republic of Kenya (2018) Kenya Integrated Household Budget Survey, (2015/2016).
- xv. Saarelainen, E. Sievers,M. (2011) Value Chains for Rural Development; ILO, Rural Policy Briefs
- xvi. Simon,W. (2018)Micro and small enterprises: preferential policy treatment and Exclusions.
- xvii. Subramniam, P, Islam,J. (2014)Innovation and the impact of technology on women entrepreneurs in small and medium enterprises in Singapore. World Applied Sciences Journal 30(30):238-246 DOI: 10.5829/idosi.wasj.2014.30.icmrp.31
- xviii. Teece,DJ., Pisano, G., Shuen,A.(1997).Dynamic Capabilities and Strategic Management.
- xix. Wanjohi, A. &Mugure, A. (2009). Factors Affecting the Growth of MSEs in Rural Areas of Kenya: A Case of ICT Firms in Kiserian Township, Kajiado District of Kenya.
- xx. Wambua,R,T.(2009) Strengthening farm agri-business linkages in Africa, Published FAO.
- xxi. Wernerfelt, B (1984). 'A Resource-based View of the Firm'. Strategic Management Journal. doi:10.1002/smj.4250050207