

Finding out External Challenges Influencing Ugandan SMEs Exporting Agro-Processed Products.

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ABSTRACT

This study sought to find out challenges facing Ugandan Small and Medium Enterprises (SMEs) exporting agro-processed products in Uganda. The main objective was specifically on External challenges. The study adopted the *mixed methodology design* on a sample of 48 using a self-administered *questionnaires* and an interview guide. Data were analysed using both quantitative and qualitative data methods. Descriptive analysis on external challenges revealed that Quality Standards ($Mean=4.145$), Information to External Market ($Mean=3.73$), Export Requirements/Procedure ($Mean=3.97$), and Physical Infrastructure ($Mean=3.78$) were moderate.

Regression analysis revealed that Descriptive analysis on external challenges revealed that Quality Standards ($Mean=4.145$), Information to External Market ($Mean=3.73$), Export Requirements/Procedure ($Mean=3.97$), and Physical Infrastructure ($Mean=3.78$) were moderate. It was therefore concluded that, external challenges hinder SMEs from exploiting the available opportunities in the external markets for their agro-processed products. Therefore, the study recommended, there is an urgent need to improve agricultural products, for both the public and private sector actors to better plan policies, interventions and investments in the field of agro-processing and to be in a position to accurately monitor progress, impact and outcomes.

Key words: External challenges, Small and Medium Enterprises and agro-processed products.

INTRODUCTION

Although SMEs represent the backbone of local economies in most developing countries, they often face great external challenges in their operations. These SMEs operate against many odds and even small changes in the external environment could affect them greatly. They are confronted with fierce local and international competition and they often lack general skills in management and marketing. These challenges substantially limit the productive capacity and efficiency of SMEs in Uganda in particular and their ability to be competitive within the context of a globalized world (Ocici, 2020).

LITERATURE REVIEW

External Challenges Influencing Ugandan SMEs Exporting Agro-Processed Products

Access to electricity in Uganda is very limited. As of 2009, only 9 percent of the population had access to power, less than a third of the rate in other low-income African countries and a fraction of the rate in resource-rich countries. Uganda's access rates are more or less equal to access rates in Malawi, amongst the lowest in Africa. Access to electricity in urban areas is also limited. Even in urban areas, only 50 percent of the population has access to power compared to 86 percent in other LICs. In rural areas, only 5 percent of the population has access to power compared to 12 percent in LICs, falling short of Uganda's national rural access target of 10 percent (World Bank 2012 p. 33).

Roads are the most commonly used transportation infrastructure in Uganda, accounting for more than 90% of

cargo freight and passenger transportation. Uganda has about 78,100 kilometers (48,529mi.) of roads. Only 3,000 kilometers (1,864 mi.) are paved, and most roads radiate from Kampala. The country has a 321 kilometer (200 mi.) rail network, much of which is not currently in use. Essentially the only operational rail line runs from the Kenya border to Kampala. Uganda's road and rail links to Mombasa serve some of the transportation needs of the neighboring countries of Rwanda, Burundi, and parts of D.R.C. and Sudan as a large volume of transit goods passes through Uganda to its land locked neighbors. Entebbe International Airport is on the shore of Lake Victoria, some 32 kilometers (20 mi.) South of Kampala (Population Reference Bureau. 2012).

As a landlocked country, competitive air cargo rates for both imports and exports are vital for Uganda. Efforts to develop Entebbe airport to handle cargo and even become a “regional hub” have been underway for some time now but need more support. When these plans are implemented, it will have considerable benefits for the flower and fresh fruits and vegetables industries. Currently, the loaded pallets have to be transported almost 2 km to the airplane and loading takes place in the often sunny open. A cargo village with sheds, ramps and other facilities will reduce quality losses of fresh produce at the airport. It will also make Entebbe a more attractive airport for cargo planes to include in their routing, thus giving greater freight options for exporters. It has to be financially attractive for air freighters to land and offload and load cargo. Unfortunately, tariffs on aviation fuel and landing and cargo handling costs are higher in Uganda than in neighboring countries. In an industry where fuel accounts for 75 % of the operational cost of cargo flights, airline companies are discouraged from landing at Entebbe airport. (Ssemwanga 2010 p.5)

Transportation challenges in the commercial sector include poor roads and insufficient vehicle capacity, including the cargo-carrying dimensions of available vehicles (small pickup trucks that move to the rural areas and inability to operate during the rainy season. Nevertheless, bicycles, cars, and trucks are moving in this resource-constrained setting over the same poor road conditions, and commercial goods do get through. According to the Durgavich study (2008), third-party contracting for transportation is the rule for general merchandise, but the types of vehicles used to transport most commercial goods may not be suitable for the safe and sanitary transportation of sensitive items such as food and medicines. Beer manufacturers and distributors, for example have a strong interest in maintaining the quality of fragile products therefore need to invest in transportation resources to support this requirement. One of the innovative practices of Nile Breweries is bulk fuel purchasing through a contract with Shell Uganda Ltd. This allows Nile Breweries to save 4 percent on diesel fuel, which it passes on to its third-party transportation contractors. Use of corporate credit cards provides flexible refueling options for the drivers and also helps the brewery monitor fuel usage by driver to identify and correct any abuse Durgavich (2008) p30.

Transport costs are based on distance and tonnage. Manufacturer representatives believe that physical distance and road conditions are the principal challenges in distributing its products in Uganda. The poor road network outside of Kampala increases vehicle wear and tear. For manufacturer-owned and contract vehicles, goods go one way. Typically, the vehicles return empty because there is no good way to control planning and loading of a return shipment of some other good like salt or charcoal, produce like sunflower seeds or cassava, or even passengers. Allowing the driver to plan a return load at his own discretion is considered extremely risky for the vehicle. Both of the soap manufacturers in the Durgavich study (ibid.) outsource transportation. Unilever Uganda Limited outsources transportation to two or three transport partners; Mukwano Industries owns some of its own vehicles but also outsources to third-party transportation partners. Compensation is based on fixed rate for tonnage to a specific distributor, but in some cases, drivers may have to idle in the yard. Fuel cost fluctuations also make it difficult for contract transportation agents to budget. But the example of Movit (cosmetics manufacturer) demonstrates that it is also possible to use a delivery truck topping-up strategy to efficiently deliver and promote up to 45 product lines at a time from a central distribution point in Kampala.

Other challenges include the following: a lack of entrepreneurship development for, and institutions supportive of, SME development; inadequate industrial institutional support services for the development of a competitive manufacturing sector; and a lack of engineering industries, particularly to produce capital and intermediate goods, spare parts, and components, the absence of which adversely affects the country's ability enhance product design, production, and maintenance know-how Goburdhun, D., Boodhoo, K. & Ruggoo, A. (2010).

Entrepreneurship training with its attendant features like innovation and efficiency can be harnessed to mitigate the harsh impact of inequality, through unraveling and promoting the kinds

and levels of interconnectivity between urban and rural lifestyle, and their contribution to social well-being and local development. This can only work where economically active groups especially the youth, are given entrepreneurship exposure and basic business training mainly in post-secondary education aimed at promoting rural entrepreneurship. Therefore, policy option for rural entrepreneurship program that is founded on rural enterprise conscious education system should be formulated and implemented. The system will create a favorable environment for the learner to respond more effectively to technology and economic change and equip them with key aspects in rural enterprise development, (Kihonge, 2011).

Challenges in trade work as tools to make foreign goods and services less competitive than goods and services produce in the domestic market. Trade challenges could technical, procedural, legal and illegal. A series of trade challenges could occurs related to product quality, consumer protection, and patent and trade mark protection. Custom duties, veterinary and phytosanitary rules, restriction on investment, unfair uses of government aid and subsidies create challenges to international business. (Ministry of Foreign and Affairs of Denmark 2012)

SMEs in the European Union face different challenges during exporting their products and services in the international markets. The major challenges faced by the European SMEs are related with finance, human resource, market entry, standard and other challenges. (European Commission 2011)

SMEs in the United States also encounter several challenges during export transaction in the foreign markets. The challenges faced by U.S. SMEs are similar to challenges identified by the Organization for Economic Co-operation and Development. The major challenges faced by U.S. SMEs are financial challenges, complex and unfamiliar foreign government rules, excessive transportation costs, limited production capacity, tariff and non-tariff challenges, lack of information about foreign market and language and cultural challenges. (United States International Trade Commission 2010)

According to Rahman (2010) the major export challenges faced by the Bangladeshi SMEs are, "Lack of information about foreign markets, functional challenges, marketing challenges, procedure challenges, governmental challenges, customer and competitor challenges, business environment challenges, tariff and non-tariff challenges".

According to OECD (2012), "The challenges to SME access to international markets can be divided in two categories. The external challenges and the internal challenges are two major challenges faced by the SMEs during their entry to the foreign markets. Internal challenges are the challenges locate within the enterprise itself. External challenges are the challenges located in the outside environment".

Challenges related to human resource management: The human resource skill is the most important tool for the growth and internationalization of companies around the globe. Human resource skill helps organization to gain competitive advantage for innovation and new product development. The most important issues for the organizations in the 21st century is to create the best fit working environment to get the maximum output of the skilled work force. (Senyucel 2009, 22)

The location of the organizations affects the export performance of the organizations because of the difficulty in drawing attention of skilled workforces. Skilled and experienced workers are very important for the development of the export related performance of the organization. (Freeman et al. 2012, 105-106)

Challenge to finance: The initial funding for export marketing is very important. The working capital fund requires to conduct research & development, frequent foreign trips and to develop marketing strategies for international business. (OECD 2012)

The finance related export support has effect on the export performance of SMEs. The performance of the SMEs depends on the level of receiving different finance and guarantee related export assistance.

(Shamsuddoha et al. 2009 418) The challenges to finance are considered as the third largest challenges among SMEs in the European Union. At most 9% of the European SMEs faced financial challenges during exporting their product in a foreign country. (European Commission 2012) The lack of finance as a working capital creates challenges for SMEs to operate their international business and exporting activities (Buatsi 2002).

Challenges related to product and price: The lack of mass production capacity of small organization considered as the major impediments for exporting. A large number of SMEs withdraw from exporting because the inability of their production capacity to meet the demand of export business. (Fillis, 2002, p922) It is very important for SMEs to adapt with new environment by developing new products to face the internal and external challenges of the international market. SMEs failure to choose the right product and new product development will suffer decrease in the export performance and profitability in the international market. The ability to fast product development provides support to develop a successful export marketing strategies. (Lim et al. 2006, p55)

Besides that, the product design and packaging play very important role to attract customers during the export marketing process. It is difficult for SMEs to grow in the international market if they are not able to package and design their products according to the need of the foreign markets. (Rundh 2009, 990) The quality of products plays an important role for the success of the international business. Since globalization has opened the doors to consumers to buy product from different countries with a very competitive price. It is very important for SMEs to maintain the quality and standard of product to compete in the global market place. Products with difficulties and poor qualities face problem to compete in the international market. (Brown 1995,56)

The success of the SMEs depends on its capability of planning a competitive pricing strategy for products for the export market. A well-planned pricing strategy help SMEs to gain a sustainable competitive situation in overseas markets. (Doole et al. 2006, 641)

The pricing of goods is important tool of pricing strategy for exporting in the foreign market. The pricing of exporting should be done by a systematic process to compete in the global business environment. SMEs face competition and challenges in terms of pricing during their export in the foreign markets. (Myers et al, 2002, 182) Delivery, logistics and advertising challenges: SMEs operating in the international market encounter problems in finding proper distribution channel. The lack of marketing and promotional activities in the overseas market creates export related problems for SMEs. A large number of SMEs in the developing countries do not succeed to establish a proper marketing channel in the international market. (Tesfom & Lutz 2006, 271)

Furthermore, the structure of the foreign supply chain management play very important role for SMEs to expand in the foreign markets. The value chain related problems has strong effect to the Export performance of the SMEs (Anderson 2009, 37) “Poor marketing campaign and promotion is another important factor that acts as a key constraint to healthy growth of SMEs. Most of the enterprises lack in proper marketing strategy and have poor promotional strategy of their products. Lack of innovation and ideas is responsible for this.” In addition to, the cost of insuring products for international market is very high and it is consider as extra burden for SMEs during internationalization process. (OECD 2012)

The export insurance offers protection against commercial risk related with export. SMEs in the developing countries face problems in insuring products and claiming coverage while a loss or accident occurs during export process. (Tesfom & Lutz 2008, 372) Inappropriate and unclear advertising message could create problems for SMEs in the foreign market. Moreover, different foreign regulations and customer buying behavior create challenging tasks for SMEs to take part in marketing, promotion and advertising activities. (OECD 2012)

METHODOLOGY

The study adopted the mixed method using a self-administered *questionnaires* and an interview guide. Data

were analysed using both quantitative and qualitative data methods. The quantitative data analysis methods were descriptive statistics that included frequencies, percentages and means, and inferential analyses included correlation and regression analyses.

Study Population

The study population comprised of Management staff of SMEs exporting agro processed products in Uganda with knowledge of SMEs' export opportunities, challenges, and policies being measured indirectly by means of assessing the perceptions of such management members. Those members were fully conversant with the phenomena being investigated, either influencing, or being affected by, those challenges and policies which occur in Agro processing SMEs.

Sample Size Determination

The following three techniques were applied in determining the sample size for the current study:

The first approach followed Krejcie and Morgan's (1970) table, as reproduced by Sekaran (2003: 294). For the population of approximately 48 (which is the population for the current study) is given as approximately 40 respondents.

The second approach entailed computing the sample size using the formula provided by Yamane (1967), which is depicted as follows:

$$n = \frac{N}{1 + N e^2}$$

Where:

n = the sample size

N = the population of the study

e = the level of significance (set at 0.05 for this study)

To arrive at the sample, the above formula was used by substituting with known quantities as shown below;

$$n = \frac{48}{1 + 48 * 0.05^2}$$

$$n = \frac{48}{1 + 48 * 0.0025}$$

$$n = \frac{48}{1 + 0.12}$$

$$n = 43$$

The third technique is introduced mainly to satisfy the conditions for factor analysis. The technique followed Hair, Black, Babin, Anderson and Tatham's (2006) recommendations that those observations which are conducted in a study must be at least five times as many as the number of the variables analysed, which implies attaining a ratio of 5:1.

In the current study, 34 items will be used in terms of the Export opportunities available, with 21 items being

used in terms of the export challenges Scale, export policies 23 items, giving a total of 78 items. The corresponding number of observations, on the basis of the 5:1 ratio, therefore, is expected to be 78*5 observations required that the appropriate sample be constituted of 275 respondents.

The recommended sample was decided upon by using all three techniques, namely those of Sekaran (2003: 294) = 40; Yamane (1967) = 43; and Hair et al. (2006) = 45.

Data Analysis

Factor analysis; correlation analysis; multiple regression analysis; and canonical correlation analysis statistical techniques were applied both in the data analysis and in the hypothesis testing. The SPSS, Version 24.0, was used in all the analyses.

FINDINGS

Response Rate

Table 1: Key informants who participated in the study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Owner	28	58.3	58.3	58.3
	Member of senior management team	20	41.7	41.7	100.0
	Total	48	100.0	100.0	

The total response rate for SMEs respondents was 59 which is 98.3% of the intended sample. This agrees with Amin (2005), who states that appropriate sample to trust the findings of the study. This means that the response rate was representative enough. It also means that the conclusions based on the data that they provided is trustable as plausible, since it was generated from all the key categories of workers in the SMEs that were sampled.

External Challenges Faced by SMEs

At the aggregate level, the development of small-medium agro-processing firms is vital for exportation as well as economic growth. The inability of SMEs in Uganda to readily export agro-processed products can be attributed to a lot of challenges. Firms in the study area, as well as firms in Uganda in general have been facing different external challenges, which have limited the sub-sector's growth rate and therefore limited exportation.

Descriptive Statistics

This section covers the descriptive statistics relating to the four variables i.e. Quality standards, Information to external markets, Export requirements/Procedure, and Physical Infrastructure underlying the external challenges agro-processed SMEs face in an effort to export their products.

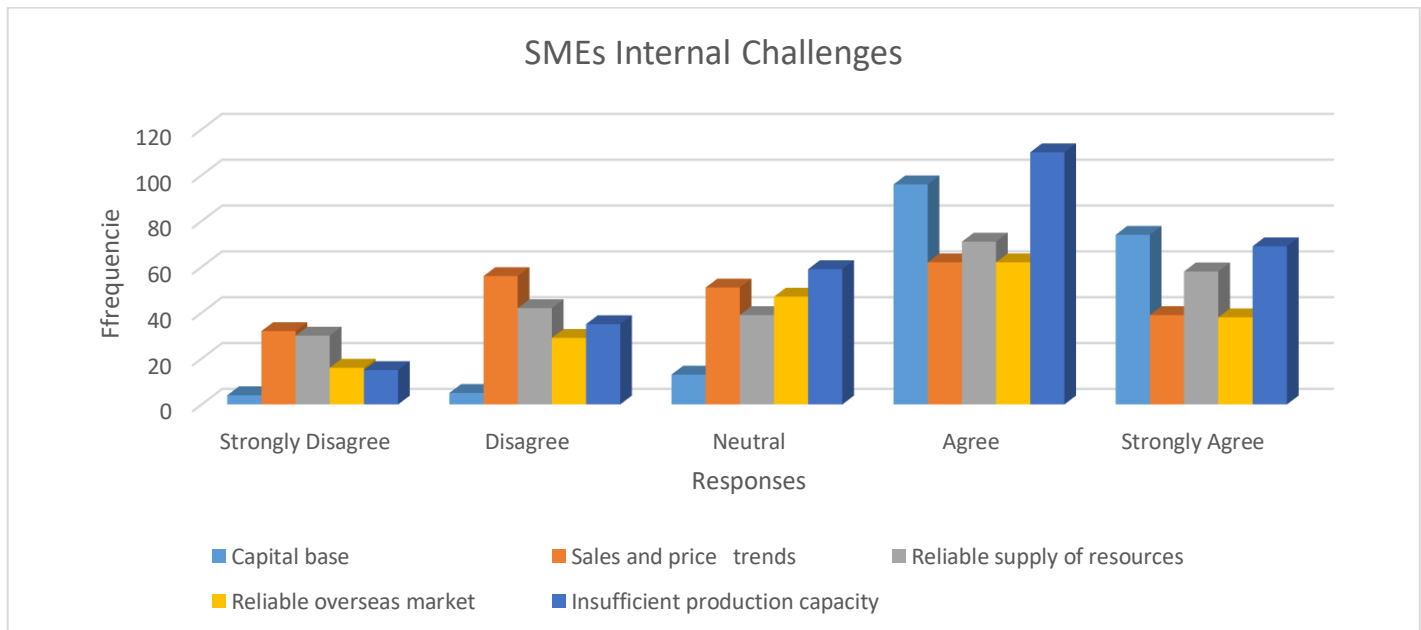
The descriptive statistics in Table 2 below indicate that Quality Standards (QS) has the highest mean, at 4.16, followed by Export Requirements/Procedure (ER/P), with a mean of 3.97. The other variables are Physical Infrastructure (PI), with a mean of 3.78; and Information to External Market (IEM), with a mean of 3.73

Table 2: External challenges

Table 5.10: .External Challenges

	Descriptive Statistics								
	N	Minimum	Maximum	Mean	Std.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std.	Statistic	Std.
Quality Standards				4.16					
DifferentProductStandardsByImpoters	48	2	5	4.1	0.805	-0.705	0.343	0.243	0.674
LimitedKnowledgeOnQualityProduct	48	2	5	4.29	0.743	-0.86	0.343	0.53	0.674
InadquateTrainingInExportBusiness	48	2	5	4.02	0.785	-0.588	0.343	0.232	0.674
ImproperPackagingMaterials	48	2	5	4.29	0.743	-0.86	0.343	0.53	0.674
PoorProductQualityStandards	48	2	5	4.31	0.719	-0.911	0.343	0.897	0.674
DifficultyInDevelopingNewProducts	48	2	5	3.98	0.934	-0.612	0.343	-0.434	0.674
Information to External				3.73					
LackOfKnowledgeOfForeignMarket	48	2	5	3.6	0.844	-0.01	0.343	-0.537	0.674
CustomerBase	48	2	5	3.48	0.899	0.34	0.343	-0.653	0.674
NoKnowledeOnExportProcedures	48	2	5	3.94	0.81	-0.134	0.343	-0.869	0.674
LocatingForeignMarketNotEasy	48	1	5	3.69	1.055	-0.463	0.343	-0.484	0.674
LaguageProblem	48	2	5	3.92	0.895	-0.574	0.343	-0.256	0.674
Export				3.97					
HighCustomDuties	48	2	5	4.33	0.808	-0.945	0.343	0.029	0.674
ComplexPaperWorkRequirement	48	2	5	3.75	0.7	-0.778	0.343	0.956	0.674
UnecessaryLawsByLocalGovernment	48	2	5	3.79	0.922	-0.585	0.343	-0.308	0.674
ForeignCustomerHaveDifferentHabits	48	2	5	4.25	0.758	-0.765	0.343	0.219	0.674
UnfamiliarExportingProcedure	48	2	5	4.33	0.753	-0.958	0.343	0.57	0.674
ExportersNotAwareOfExportPolicies	48	2	5	3.6	0.61	-0.124	0.343	-0.163	0.674
Physical Infrastructure				3.78					
SlowCollectionOfPaymentFromAbroad	48	2	5	3.73	0.707	0.065	0.343	-0.341	0.674
TransportCostSoHigh	48	2	5	3.5	0.772	-0.29	0.343	-0.272	0.674
PowerAndWaterCostSoHigh	48	2	5	3.83	0.834	-0.362	0.343	-0.288	0.674
HighShippingCosts	48	2	5	4.08	0.821	-0.64	0.343	-0.007	0.674
Valid N (listwise)	48								

Fig 1: External challenges



Quality Standards

The overall mean rank of 4.16 in relation to Quality standards implies that SMEs find a challenge of meeting the quality standards of the importers. Respondents were asked their level of agreement on a scale of 5 as far as quality standards are concerned on the following,

If importer have different product standards and the mean score was 4.04, if SMEs have Limited knowledge on quality product, earn score 4.29, Inadequate Training in Export Business scored 4.02, Improper Packaging Materials mean score of 4.29, Poor Product Quality Standards 4.31 and Difficulty in Developing New Products, a mean mark of 3.98. All these aimed at checking the quality standard levels.

Information to External Market

Concerning information to external market, the mean rank of 3.73 implies that on average SMEs perceive

information to external market in terms of export disclosure to be important in accessing external markets. SMEs lack knowledge on foreign markets as well as export procedures and therefore cannot easily export their products.

This is in agreement with Adler & Rodman, 1997; Defleur & Everette, 1999; Maicibi, 2003;” No business enterprise can survive early mortality without communication and effective information management.” And there is no best way a business enterprise can propel to greater heights if information management is not channeled through social networks in which social capital is derived (Putman, 1995; Lin, 1999; Davidsson & Honig, 2003).

There is an asymmetric information problem between suppliers and demanders of goods and services in general. Information is necessary to remedy this problem. Many big enterprises list their shares on stock markets and issue securities in bond markets. And most SMEs have no connection with external markets. SMEs can closely and continuously observe consumers, but it is costly to do so for consumers of small products. The lack of information for SMEs exacerbates the information asymmetry problem.

SMEs engagement in international activities have been hindered by limited information and understanding about target foreign markets. This limits the ability to customize products to the diverse needs of consumers and to meet product requirements and standards under local regulatory environments. SMEs also lack established contacts with suppliers and business partners abroad. While advances in telecommunication technology may help to alleviate some of the knowledge gap, foreign contacts are essential for overcoming information barriers particularly for SMEs

Export Requirements/Procedure

In an effort to find out if SMEs are exposed to procedures or know the requirement for exportation of their products, questions relating to export requirement were asked and the following were the responses; High custom duties scored an average mean mark of 4.33, Complex Paper Work Requirement 3.75, Un necessary Laws By Local Government 3.79, Foreign Customer Have Different Habits 4.25, Unfamiliar Exporting Procedure 4.33, and Exporters Not Aware Of Export Policies 3.60. In summary, the export requirements/procedures scored an overall mean of 3.97. The respondents agreed that export requirements are still a challenge and may need to be addressed.

Physical Infrastructure

The research was also concerned with how well are the physical infrastructure of SMEs in relation to exportation of SMEs’ agro—processed products. The mean results from respondents were 3.78.

In an attempt to get average mean score, the following were ranked on a scale of 5; Slow, Collection of Payment from abroad (3.73), Transport cost so high (3.50), Power and water Cost so high (3.83) and High shipping costs (4.08)

While the geographical distance between trading partners matters, the ability of firms to access foreign markets and participate in export is greatly affected by the quality of physical infrastructure, such as roads, ports, and airports, as well as the efficiency of the procedures followed in the operation of those facilities (Bernhofen et al., 2016). In particular, in Low-Income Developing Countries (LIDCs), the ability of firms and industries to engage in trade is determined much more by the quality of their port facilities (sea and air), than by the types of preferential access that they might enjoy in major industrialised markets (OECD-WB, 2015). Telecommunications infrastructure is another important component which supports the value chains of physical goods and enables the creation and trade of digital services, which account for a growing share of total international trade. Access to such infrastructure can therefore be important for SMEs that seek to participate in international markets.

Correlation Analysis

The results of the Pearson correlation coefficient test are presented in Table 3 below;

According to Field (2009), correlation between independent variables above 0.8 is a cause for concern. However, Myers (1990) also states that a certain degree of multicollinearity could still exist, even when none of the correlation coefficients is very large. Nonetheless, in this case all the correlation values were less than .80, which does not require examination of the variance inflation factors (VIF) to further test for multicollinearity.

According to Cohen (1998), correlation coefficient values between .50 and .90 between the dependent and independent variables are interpreted as very strong, whilst coefficients between .10 and .40 are considered to be weak. In Table 5.11, shows that there are negative relationships between SMEs exportation of agro-processed products and quality standards, at a level of 5%. The relationship is negative, which suggests that when the quality of agro-products to be exported is not up to the standards, then the rate at which such product is exported is so low.

In addition, all the variables; Quality Standards (QS), Information to external markets (IEM), Export requirements/Procedure (ER/P), and Physical Infrastructure (PI) have a negative relationship with SMEs exporting agro-processed products, at a level of 1%. This implies that the quality standards of the products produced by SMEs does not conform to the quality standards of the importers. In other words the products may not be acceptable in the foreign market.

Similarly, Uganda SMEs that do not have enough knowledge about the external or foreign markets and this makes them to be less prepared for the market.

From the findings, it is conformed that foreign markets have different and complicated export requirements/procedures which Ugandan local SMEs have found challenging the requirements change depending on the importer and this makes hard for the SMEs to have different requirements as per the different importer for the similar products

Finally, the physical infrastructure variable have a negative relationship with SMEs exportation of agro-processed goods. The findings imply that there is slow collection of payment from importers, shipping costs are so high and utility costs are also so high.

Table 4: Correlation analysis

This table reports the values of the correlation coefficients for all variables adopted in estimating the relationship between exportation of agro-processed products and external challenges i.e. Quality Standards (QS), Information to external markets (IEM), Export requirements/Procedure (ER/P), and Physical Infrastructure (PI)

		QS	IEM	ERP	PI
QS	Pearson Correlation	1	0.031	0.064	0.083
	Sig. (2-tailed)		0.836	0.667	0.58
	N	48	48	47	47
IEM	Pearson Correlation	0.031	1	-0.046	0.149
	Sig. (2-tailed)	0.836		0.76	0.318
	N	48	48	47	47
ERP	Pearson Correlation	0.064	-0.046	1	0.002
	Sig. (2-tailed)	0.667	0.76		0.988
	N	47	47	47	47
PI	Pearson Correlation	0.083	0.149	0.002	1
	Sig. (2-tailed)	0.58	0.318	0.988	
	N	47	47	47	47

REGRESSION ANALYSIS

Test of Hypothesis

This study was guided by three hypotheses which were tested in order to assess whether the study objectives were achieved. The hypotheses of the study were tested by using the regression analysis method. The regression analysis method is considered by using three assumptions.

First Assumption: Coefficient of determination in the modal summary should explain the independent variables above 50%.

Second Assumption: At 5% level of significant and 95% confident level, the significant value

(P value) in the ANOVA and coefficient regression should be $P < 0.000-0.05$.

Third Assumption: At 5% level of significant and 95% confident level, the value of predictions or independent variables should be $P \leq 0.000 - 0.05$.

The study was guided by the following hypothesis.

H1: There is a significant relationship between external challenges and exportation of agro-processed products by SMEs

Table 5: Model Summary

Model Summary										
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Change Statistics				
						R Square Change	F Change	df1	df2	Sig. F Change
1	.828 ^a	.686	.676		3.13980	.686	69.918	3	96	.000
a. Predictors: (Constant), PI, ERP, QS, IEM										

First assumption: Coefficient of determination in the modal summary should explain the independent variables above 50% of data analysis model summary. The assumption holds due to the fact that the coefficient of determination (r^2) had value of 0.686. This implies that independent variables under external challenges explain 68.6% influence SMEs growth. This coefficient of determination is very significant because only 31.4% of variations are brought by factors not captured in the independent variables.

Table 5: ANOVA

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.621	4	2.405	4.838	.003 ^a
	Residual	21.379	43	.497		

Total	31.000	47			
a. Predictors: (Constant), PI, ERP, QS, IEM					
b. Dependent Variable: Exportation of Agro processed products by SMEs					

The results provided in table 5 above showed that, the model applied in this study statistically significantly predict the outcome variable of relationship between dependent variable “exportation of agro-processed products by SMEs” and independent variables “external challenges” to a large extent since significant value (P value) is 0.003 which is less than 0.05.

Therefore, the second assumption hold which also means hypothesis of this study are positively correlated since at 5% level of significant and 95% confident level, the significant value (P value) in the ANOVA and coefficient regression lie between values of $P < 0.003-0.05$. Researcher accepted the alternative hypothesis since its assumption hold and rejected null hypothesis.

Finally, variables were tested so as to check if at 5% level of significant and 95% confident level, the value of predictions or independent variables would be $P \leq 0.000 - 0.05$ so as to test if hypothesis hold or not. After testing them on SPSS v.22 the results were presented on the table 5.14 below;

Table 6: Coefficient Correlation

Coefficients ^a													
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	2.463	.981		2.511	.016	.485	4.440					
	QS	.0302	.128	.299	2.351	.023	.043	.561	.301	.337	.298	.988	1.012
	IEM	.0390	.123	-.406	-3.181	.003	-.638	-.143	-.365	-.436	-.403	.987	1.013
	ERP	.0133	.138	-.123	-.969	.338	-.411	.144	-.079	-.146	-.123	.992	1.008
	PI	.0251	.124	.258	2.020	.050	.000	.501	.243	.294	.256	.984	1.016
a. Dependent Variable: Exportation of Agro-processed products by SMEs													

The regression equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \alpha$) was;

$$Y = 2.463 + 0.0302 X_1 + 0.0390 X_2 - 0.0133 X_3 + \alpha$$

Where by Y = exportation by SMEs

X1= Quality standards

X2 = information on export market

X3= Export Requirement/Procedures

X4=Physical Infrastructure

1. The coefficient table implies that there is a significant relationship between quality standards and exportation by SMEs as it shows value is 0.0302 which is between $P < 0.000 - 0.05$.
2. The coefficient table implies that there is a significant relationship between information on export market and exportation by SMEs as it shows value is .0390 which is between $P < 0.00 - 0.05$.
3. The coefficient table implies that there is a significant relationship between Export Requirement/Procedures and exportation by SMEs as it shows value is 0.0133 which is between $P < 0.00 - 0.05$.
4. The coefficient table implies that there is a significant relationship between physical infrastructure and exportation by SMEs as it shows value is .0251 which is between $P < 0.00 - 0.05$.

CONCLUSION

It was concluded that Lack of capital base, particularly the absence of initial capital, high costs of capital and high interest rates; inadequate sales and price trends; costly, unreliable, and inadequate physical infrastructure, particularly quality transport, energy, and communications infrastructure; un reliable supply of resources; an unreliable overseas markets are serious challenges to the SMEs particularly those exporting agro-processed products.

RECOMMENDATION

The study recommended that there is an urgent need for improved agricultural products, for both the public and private sector actors to better plan policies, interventions and investments in the field of agro-processing and to be in a position to accurately monitor progress, impact and outcomes.

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