PRODUCT DIFFERENTIATION AND SMEs MARKET PARTICIPATION: IMPLICATIONS FOR TANZANIAN AGRO PROCESSING INDUSTRY

Mtaturu, J.Z.[1] and Mbailuka, J.J.[2]

[1 & 2] *Department of Business Administration, College of Business Education, Tanzania.*
[1] *j.mtaturu@cbe.ac.tz*
[2] *jonaj09@gmail.com*

Abstract

This paper examined the likelihood of agro processing SMEs in Tanzania to participate in a range of markets based on product differentiation strategy. Its motivation is based on lack of adequate knowledge on the benefits of product differentiation and SMEs owners' fear on cost associated with product differentiation, which discourages investment in this area. This is due to the relatively low financial capacity of most agro processing SMEs in Tanzania. Specifically, the aim was to examine the probability of SMEs market participation based on technological effect, staff skills and firm's experience effect on product differentiation. The empirical evidence was aided by the application of the ordered probit marginal effects model on primary data collected from 300 respondents drawn by a simple random sampling technique. The results reveal less likelihood on SMEs market participation to low traditional market while high likelihood is evident to the middle and high markets. The paper contributes to the existing literature that improved technology, managerial skills and firm's experience are necessary in improving market participation into higher market levels. The exposition is based on the ordered probit marginal effects econometric method not previously used in existing literature in this area. The findings unveil insights to institute appropriate policies so as to enhance SMEs market participation through revealed benefits on value addition emanating from product differentiation for national economic growth.

Keywords: Product differentiation, market participation, market segment, SMEs.

1.0 INTRODUCTION

1.1 Background Information

Product differentiation is an economic business strategy carried out by firms across the world in an imperfect competition market structure. It encompasses distinguishing a product or service from similar ones with the intent of value addition in order to capture a large share of market segments (Nolega, Oloko, William, & Oteki, 2015). It is also regarded as a competitive commercial strategy whereby producers try to achieve a competitive advantage by increasing the value of their products relative to those of their competitors (Rahman, 2011). A producer can apply two ways to compete against its rivals; first by lowering the price level of its goods and services and second by distinguishing its products or services. A better way to do this is for a firm to adopt product differentiation in order to enjoy a competitive advantage over its counterparts across market segments (Nolega, Oloko, William, & Oteki, 2015).

A market segment is a share of market mostly dominated by a particular seller, company or product in a specified period of time which can be used to measure the performance of a firm. It determines the level of a firm's participation in a particular product market in which product differentiation remains one of the vital drivers, through a competitive advantage it dominates over its rivals (Aballa, 2018). Participation in a market segment is determined by a percentage of total sales in a given period of time. This metric is mostly used by firms to determine their level of market participation in a particular market, relative to its competitors. Gaining more shares in a market segment allows a firm to increase its operations which implies the increase in firm's profit margin.

Market participation is the level of product share in the market which can be explained by its product visibility through sales volumes in a market segment. It is calculated by aggregating the firm's sales volume dividing by the total industry sales in a specified period of time (Pierre, Timothy, George & Gerry, 2009).

Agro-processing firms imply a subdivision of manufacturing companies that uses agricultural raw and semi produced goods as inputs in producing final agricultural products supplied to the market ready for consumption (Swai, 2017). Small and Medium Enterprises (SMEs) driven agro processing has remarkably indicated a significant contribution to economic growth of many economies (Ziliona et al., 2013). Their importance hinge on the potential they have as paramount source of income to the rural poor particularly in Sub-Saharan Africa. Agro processing implies value addition which is very important to improving the quality of raw crop harvests done by SMEs and thus yield higher returns, expand marketing share, improve palatability of farm products while enhancing food security (Mhazo, 2003).

In Tanzanian context small enterprise is a formal undertaking operating within five to 49 workers or investing in capital expenditure ranging from Tanzanian Shillings (Tshs) five million to Tshs.200 million while medium enterprise operates with 50 to 99 workers or having capital expenditure from Tshs.200 million to Tshs.800 million (URT, 2002). Tanzania is not exceptional where processing of agricultural products plays a pivotal role in income generating of the rural poor (UNIDO, 2008). Similarly, agro-processing provides an opportunity for increasing incomes and creating jobs along the value chain through expansion of forward and backward linkages in the economy (URT, 2013). In recognizing the importance of SMEs, the government of Tanzania through Small Industries Development Organization (SIDO) has been identifying various initiatives to expand opportunities for growth of small agro-processing firms so that they can compete in their product markets (Mwang'ombola, 2005).

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1.2 Problem Statement

Despite a number of initiatives put forth by the government on value addition of agro processing SMEs products to enhance their market participation, their level of participation remains unsatisfactory (World Bank, 2006; 2013). Product differentiation is one of the key pathways out of this challenge to winning contemporary competitive agro processed product markets. Most of SMEs produce traditional similar products using locally established technologies due to the owners of SMEs fear to invest much in product differentiation strategies. This is partly due to less knowledge in such techniques which make them less competitive to capture higher market segments. Such SMEs had initially invested in equipment and machinery, this compels them to struggle in the best way possible to break even and make profits. A common characteristic for these enterprises is lack of adequate knowledge on differentiation strategies to the products and services they offer to the market which obstructs them from increasing their returns.

The fear on cost implication embodied with product differentiation against their low financial capacity, exacerbated by inadequate knowledge on benefits of product differentiation among SMEs in Tanzania; is a reason for most agro processing SMEs to hesitate carrying out substantial product differentiation. This is due to the uncertainties on the end results of product differentiation techniques. Subsequently, they stack on a weak position in the same market thus, fail to penetrate into higher markets and lose a huge sales volume. However, if applied, the techniques would drive a particular firm to a desirable competitive advantage. The need of carrying out this study is imperative to reveal empirical evidence on the benefits of product differentiation through the likelihood of agro processing SMEs market participation across a wide spectrum of market segments ranging from low to high product market levels.

Comprehending the likelihood effect of product differentiation on SMEs market participation, would provide Tanzanian agro processing SMEs with not only the knowledge but also confidence to mobilize sufficient resources to invest in product differentiation strategies. It will provide policy makers with strong tools in devising appropriate policies. The instituted policies would enhance SMEs market participation through revealed benefits on value addition through product differentiation for national economic growth. Unfolding the importance of investment in modern technologies, skills and experienced staff is very important in boosting product value addition to achieving the National Agriculture Marketing Policy and Value Addition of (2008) that calls for value addition schemes for agro processing SMEs.

1.3 Aim and Objectives

The aim of this paper is to examine the likelihood of agro processing SMEs market

participation based on product differentiation. Specifically, objectives are to: determine the probability of SMEs market participation based on technological effect in product differentiation in Tanzanian agro processing industry; examine the probability of SMEs market participation based on skills effect in product differentiation in Tanzanian agro processing industry and assess the probability of SMEs market participation based on the effect of staff experience in product differentiation in Tanzanian agro processing industry.

2.0 LITERATURE REVIEW

2.1 Agro Processing SMEs and Market Participation in Tanzania

The development of agro-processing SMEs was promoted by Tanzanian government early after independence in 1965 (Mwang'ombola, 2005 & Shitundu, 2000). This was underpinned by development of small industrial development strategy which operated through the National Small-Scale Industries Corporation (NSIC) established in 1966 blanketed by the National Development Corporation - NDC (Mwang'ombola, 2005). However, due to the failure to provide adequate support to industrial development it was eventually succeeded by the newly established Small-Scale Industries Development Organisation (SIDO) in 1973 (Mwang'ombola, 2005). The intent of SIDO was to positively transform economic development both at micro and macro levels by creating employment opportunities that would boost income levels of individuals by fostering small scale industrial development (Wangwe and Rweyemamu, 2002). However, due to capitalization and firm mismanagement between 1980s and 1990s many firms collapsed from poor production which slowed down the development pace of the Tanzanian economy (Kabelwa, 2002). In 1996, Sustainable Industrial Development Policy for Tanzania (SIDP) was enacted to enhance SMEs development in order to create a favourable employment level. Phase I (1996 to 2000) was rehabilitation phase on existing SMEs capacities. Phase II (2000 to 2010) was extension phase on SMEs capacities by the use of efficient technology. Phase III (2010 to 2020) is an advanced investment phase in capital goods industries. The initiatives were corroborated by the Agriculture Marketing Policy and Value Addition of (2008) which spells out the promotion of primary agro processing and value addition through special programs and incentives as a national priority laid down by the government to support agro processing SMEs. Additionally, the policy intends to promote participation of domestic agro processed products in the local and international markets (URT, 2008).

Despite these initiatives put forth by the government on SMEs product value addition to enhance market participation of domestic agro processing SMEs, their market participation remains unsatisfactory particularly in international level market segments (World Bank, 2006;

2013). The policy further calls for research and development in this area to promote value addition of agro processing SMEs. The objective is to enhance SMEs product market participation which necessitates the need to undertake this study. Product differentiation underpins value addition which is necessary to enforce the aforesaid Agricultural Marketing Policy and Value Addition.

World Bank (2006) and World Bank (2013) repeatedly carried out enterprise survey from the same agro processing firms in 2006 and 2013 in Dar es Salaam, Arusha, Mbeya, and Mwanza cities. The survey revealed that in 2006, 43 per cent of the sample consisted of small agro processing enterprises, 41 per cent was composed of medium enterprises while the remained 16 per cent per cent was captured by large agro processing enterprises. In 2013, 52 per cent of the sample consisted of small agro processing enterprises, 33 per cent was composed of medium size while the remained 15 per cent per cent was captured by large agro processing enterprises. Agro processing SMEs market participation by market niche in 2006 sample indicates that 71 per cent of all SMEs participated in local market1, 27 percent participated in regional market[2] while the remained eight percent participated in international market. In 2013 a similar survey revealed that, 51 percent of agro processing SMEs participated in local market, 41 percent participated in regional market while the remained two percent participated in international market. The data reveal unsatisfactory market participation level of SMEs especially to higher market levels.

2.2 Empirical Review

In North America, Saitone & Sexton (2010) carried out a study in California on product differentiation and quality in food markets and found that although differentiating products and exploiting market niches are keys to success in modern food markets, there are barriers to achieving these outcomes for agricultural products. Bruwer & Johnson (2010) in California explored different levels of place-based marketing strategies of wineries in their branding efforts and found that producers who use regional branding cues, information and images in their assessment and valuation of comparative wine labels increases consumer confidence in the quality of the product in the market. Jennifer (2009) studied on product differentiation and market segmentation in the USA applesauce and found that consumers were willing to pay more for locally grown applesauce compared to applesauce that was labelled USDA Organic, Low Fat, or No Sugar Added. Xia and Li (2013) carried out a study on product differentiation for agricultural producers in the USA and found that, vertical differentiation conducted by food

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[1] Local market is defined as district level market

[2] Regional market is defined as national level market

marketers can lead to a higher farm price and a larger quantity of agricultural material sold so that, farmers' welfare would be improved. Phillip & Peterson (2004) studied on product differentiation and target marketing by agricultural producers and found that the existence of a differentiated marketing strategy was equally important to the existence of a differentiated production system in distinguishing between the business strategies of producers in the subject pools.

In Latin America, Montoya & Ciravegn (2013) studied on differentiation strategies in agribusinesses based in agribusiness emerging market of Latin American and found that firms use strategic initiatives to ensure they command higher than average prices. Donnet, Weatherspoon & Moss (2010) examined food product differentiation by quality ratings specialty coffee supply chains into e-markets in Latin America from 2003 to 2006. They found that the 100-point quality rating does not carry the same information content and meaning in the two different e-auctions and their respective supply chains.

In Canada and Spain and Sweden, Innes, Kerr, & Hobbs (2007) studied on international agro processed product differentiation in Canada through a brand logo for international market participation and found that, brand can increase the level of international market participation. Ordonez, Entrena Cabrera & Hensele (2018) examined product differentiation failures on the role of product knowledge and brand credence in Spain olive oil markets. They found an evidence of product knowledge influencing consumers' attitude towards demand for foodstuff and its consumption, but not the attitude towards the product alternative. Ferguson (2015) carried out a theoretical research on endogenous product differentiation, market size and prices in Sweden and asserted that consumers' love of variety makes them more sensitive to product differentiation efforts by firms, which leads to higher prices in larger market.

None of the aforementioned studies has considered that relationship on agro processing industry in developing countries especially in Sub Saharan Africa. This study attempts to contribute into existing literature in two folds; first, it provides agro processing firm based analysis on product differentiation and market participation in developing country's perspectives. This is a salient matter in Sub Saharan region in which most economies are in structural transformation from agriculture to industrial economy where the key players are agro processing SMEs. Second, the study applies a novel and innovative appropriate econometric strategy, to reveal a valid and robust empirical evidence not previously used in the existing literature. The exposition is based on application of an ordered probit marginal effects model, a probabilistic econometric method to unveil the likelihood of agro processing SMEs participation in a large spectrum of non-geographical based markets not previously used in the literature. This is especially important in Tanzania, where the economy has articulated itself to

become a semi industrialized economy by 2025 in which most of domestic manufacturing industries fall in agro processing SMEs. These SMEs highly depend on agricultural inputs in a value added manufacturing process for their production. Agriculture which employs more than 65 percent of the population, remains the main source of inputs to agro processing SMEs.

2.3 Theoretical Model

Horizontal Product Differentiation; refers to distinctions in products that cannot be easily evaluated in terms of quality. This stands in contrast to vertical differentiation, where the distinctions between products are objectively measurable and are based in the products' respective level of quality. Horizontal differentiation can be linked to differentiation in colors, styles, in shapes, in flavors, tastes, in well-known category as well as elaborated proprietary marketing segments. Horizontally differentiated products is more efficient for producers to try to capture as many new consumers as possible with minimal additional costs while gaining the greater possibility of large market share. The cost effectiveness and diverse differentiation options qualifies the strategy as an appropriate one to this study. This is appropriate to Tanzanian SMEs who are financially constraint to winning competitive large market shares (Liu, Wang & Zeng, 2019).

2.3.1 Hoteling Model of Horizontal Product Differentiation and Market Participation Power

The study is follows the Hoteling Model presented by Eaton & Lipsey (1989) who elaborated the market participation power gained through horizontal product differentiation.

Assumptions: Each brand is attached to location in space of possible configurations. Consumer's utility is a function of distance between ideal version and purchased version. Initially, there is a spatial competition to answer the question, where to buy? Transport cost is considered to set up consumer's disutility. Hotelling's linear city assumes a uniform distribution of consumers on [0, 1]. The distribution is assumed to create a unit demand, with gross utility u from consuming the product from firms 1 and 2, located at extremities. The production cost per unit is assumed to be constant at c. Consumer incurs quadratic transportation cost, *t* at location *x* in terms of his preference.

$$Max\{u - p_1 - tx^2; u - p_2 - t(1-x)^2\} \qquad (2.1)$$

Indifferent buyer $\tilde{x}$: $\{u - p_1 - t\tilde{x}^2 = u - p_2 - t(1-\tilde{x})^2$ $\qquad (2.2)$

Demands faced by the firms: $D_1 = (p_{1.}p_{2.}) = \tilde{x} = \frac{1}{2} - \frac{p_1 - p_2}{2t}$ $\qquad (2.3)$

$$D_2 = (p_{1.}p_{2.}) = 1 - \tilde{x} = \frac{1}{2} - \frac{p_2 - p_1}{2t} \qquad (2.4)$$

Profit functions: $\pi_i(p_{1.}p_{2.}) = (p_i - c)D_i(p_i p_j)$ $\qquad (2.5)$

FOC conditions yields increasing best replies:

$$P_i(p_j) = \frac{p_j + t + c}{2} \qquad (2.6)$$

Price equilibrium is unique and symmetric $p^* = c + t$ and equilibrium profits are equal to $t/2$. When: $t = 0$, i.e. cost incurred is only per unit cost implies no differentiation. This is when firms are located at the same address which implies minimal differentiation. When firms located at extremities then maximal differentiation occur where t increases, implying products are increasingly differentiated. Firms compete less for the same customers, their neighboring consumers become somehow captive and market power increases. Thus, the higher the degree of product differentiation, the higher the likelihood of market participation power.

3.0 METHODOLOGY

3.1 Empirical Modelling

Consider the following model;

$$y^* = \beta x_i + \varepsilon_i, 1 \le i \ge N \qquad (3.1)$$

where y^* is a continuous, latent variable, x_1 is a set of independent variables, β is a set of coefficient to be estimated, and ε is an error term assumed to be white noise having a probability density function denoted $f(\varepsilon, \theta)$. N denotes the number of observations. The model cannot be estimated by OLS since y^* is continuous in nature in which OLS will be affected by heteroscedasticity problems that may generate inconsistent and biased probability estimates beyond the normal limit of (0, 1) (Greene & Hansher 2010; Klein & Sherman 2002). The maximum likelihood estimation is appropriate to this type of estimation.

Consider the following model;

$$y_i = \begin{cases} 1 & if \quad y^* < \alpha_1 \\ 2 & if \quad \alpha_1 \le y^* \le \alpha_2 \\ 3 & if \quad \alpha_2 \le y^* \le \alpha_3 \\ \quad \vdots \\ J & if \quad \alpha_{j-1} \le y^* \end{cases} \qquad (3.2)$$

where J is the number of mutually exclusive categories of y_i. The probability of observing a particular outcome, for $1 \le i \le j$ is given by;

$$Pr(y_i/x_i) = Pr(\alpha_{j-1} \le y_i^* \le \alpha_j) = Pr(\alpha_{j-1} \le \beta x_i + \varepsilon_i \le \alpha_j) \qquad (3.3)$$

$$= Pr(\alpha_{j-1} - \beta x_i \leq +\varepsilon_i \leq \alpha_j - \beta x_i) \qquad (3.4)$$

$$= Pr(\varepsilon_i \leq \alpha_j - \beta x_i) - Pr(\varepsilon_i \leq \alpha_{j-1} - \beta x_i) \qquad (3.5)$$

If the assumption that ε_i is normally distributed holds, then;

$$= F(\alpha_1 - \beta x_i; \theta) - F(\alpha_0 - \beta x_i : \theta) \qquad (3.6)$$

where F is the cumulative distribution function for ε_i and $\alpha_0 = \alpha_{1-1}$. The presence of cumulative distribution function is a reason for adopting a maximum likelihood estimation framework.

3.2 Econometric Model and Identification Strategy

The empirical work of this paper follows the motivation indicated in theoretical framework which takes into account the continuous nature of dependent variable under trichotomous form indicated hereunder;

$$Pr_i(Y_i = J) = \beta_o + \beta_1 X_i + \beta_2 Z_i + \varepsilon_i \qquad (3.7)$$

where; Pr is the probability of firm i to participate in the three market segments, while J is the choice outcome where 1, 2 and 3 are low traditional, middle and high market level respectively. X is a treatment variable for product differentiation which is product design dummy, 1 if product design has been improved in the past one year, 0 otherwise. Z is the set of control variables including type of ownership, gender and subsector dummies, firm size in number of workers, sales volume and product price in Tshs. ε_i is an error term assumed to be white noise.

3.3 Data and Source

The data used in this study come from cross sectional survey on primary based collection. The survey was carried out in a random selected sample of 300 firms from previously established agro processing list of SMEs by SIDO in Dar es Salaam city. The city was selected because it is a national commercial centre in the country capturing holistic business characteristics of the entire economy. It has numerous manufacturing firms in which a large share is composed by SMEs which are nationally representative by nature. Its high population characteristic provides a wide spectrum of market niches which attract various investments particularly in agro processing manufacturing firms due to the high demand for food consumption.

3.4 Sample Size and Sampling Technique

A total of 300 set of structured questionnaires were randomly administered to SMEs for data collection to enquire important information in various areas including firm's market participation and product differentiation strategies necessary to carrying out this study. From the SMEs total population list issued by SIDO, a sample was established using simple random

sampling. Every tenth firm was drawn based on (Galero-Tejero, 2011) formula which generated 300 firms. |The formula used is indicated hereunder;

$$n = N/(1 + Ne^2) \qquad\qquad (3.8)$$

where; n stands for sample size, N is population in this case is 1200 agro processing SMEs and e is an error margin (0,05) yielding a sample size of 300 observations..

4.0 RESULTS AND DISCUSSION

Table 4.1 indicates that product design which is a proxy for product differentiation is negative and statistically significant. SMs which improve their products through product differentiation are less likely to participate in low traditional market. In contrast, such SMEs are more likely to participate in the middle and high level markets as revealed by a positive and statistically significant coefficient of product design in both remained cases.

Table 4.1: Ordered Probit Marginal Effects Model - Baseline Results

Variables	(1) Low Market	(2) Middle Market	(3) High Market
Product Design	-0.2788***	0.1263***	0.1525***
	(0.058)	(0.032)	(0.033)
Controls	Yes	Yes	Yes
Observations	300	300	300

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

The first three columns of Table 4.2 present robustness check on baseline results based on certification proxy for product differentiation, while ordered logit marginal effects model confirms the results in the next three columns. Both models bear negative and statistically significant coefficients in low traditional market, while in the middle and high markets the coefficients are positive and statistically significant, they are consistent to the baseline results. The reason for less likelihood of SMEs with certified products by the National Bureau of Standards (NBS) to participate in low level traditional market might be the value addition accrued by certified products.

Table 4.2: Ordered Probit Marginal Effects Model - Robustness Checks

	(1)	(2)	(3)		(4)	(5)	(6)
	Ordered Probit Marginal Effects				**Ordered Logit Marginal Effects**		
Variables	Low Market	Middle Market	High Market		Low Market	Middle Market	High Market
Certification	-0.3645***	0.1624***	0.2021***	PD³➤	-0.2947***	0.1365***	0.1585***
	(0.079)	(0.042)	(0.046)		(0.062)	(0.030)	(0.040)
Controls	Yes	Yes	Yes		Yes	Yes	Yes
Observations	300	300	300		300	300	300

Standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$

This creates less confidence to customers in traditional market to patronise such products emanated from a perceived increase in price due to improved quality from government certification. Certified products create confidence to the middle and high market customers who wish to purchase quality and standard products due to value addition associated with product differentiation relative to other similar products.

Table 4.3 presents results on likelihood of SMEs market participation based on product differentiation for those which are managed by skilled personnel[4]. The established interaction dummy on skills and education captures skills effect. The results show that, SMEs owned by skilled personnel are less likely to participate in low market for each additional improvement on product differentiation. However, such SMEs are more likely to participate in the middle and high markets. The reason for less likelihood in low market could be due to well-crafted products from skills contributed by business managers backed up by their high level of education relative to unskilled managers. The low traditional market becomes inferior to accommodate improved products due to value addition created to the products and qualifies such goods to compete in the middle and high market niches depending on the degree of differentiation.

Table 4.3: Ordered Probit Marginal Effects Model – Skills Effect

	(1)	(2)	(3)
Variables	Low Market	Middle Market	High Market
Education x Product design	-0.2744***	0.1242***	0.1502***
	(0.057)	(0.031)	(0.033)
Controls	Yes	Yes	Yes
Observations	300	300	300

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[3] PD stands for Product design which is a proxy for Product differentiation.

[4] Skilled personnel as those holding educational credentials of above primary level.

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 4.4 presents results on SMEs market participation based on product differentiation for those which apply modern technology. An interaction term was created between technology and product design dummies to embody technology with product design in order to capture modern technological effect in market participation relative to traditionally produced products. The results show that the likelihood of SMEs to participate in low market decreases with additional improvement on product differentiation through modernized technology. SMEs which apply modern technology in product differentiation are more likely to participate in the middle and high markets.

Table 4.4: Ordered Probit Marginal Effects Model - Technological Effect

Variables	(1) Low Market	(2) Middle Market	(3) High Market
Technology x Product design	-0.2336***	0.0999***	0.1337***
	(0.082)	(0.038)	(0.048)
Controls	Yes	Yes	Yes
Observations	300	300	300

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

The reason for less likelihood of SMEs which apply modern technology to participate in low traditional market might be due to the value addition accrued from advanced technology which creates less confidence to keen customers to patronise traditional market. This emanates from value addition due to product differentiation. Modern technology used by SMEs for product differentiation produces modern products of high quality which qualify to enter and compete in the middle and high markets. Differentiated products based on modern technology supersede traditional products in low traditional market.

Table 4.5 presents results on SMEs market participation based on product differentiation for those which have more than three years of experience. An interaction term was created between years in operation and product design dummies, to embody experience with product design in order to establish experience effect. The likelihood of products from experienced SMEs to participate in low market decreases with additional improvement on product differentiation. The likelihood to participate in the middle and high markets increases with additional product differentiation. More experience qualify SMEs to graduate into higher level markets.

Table 4.5: Ordered Probit Marginal Effects Model - Experience Effect

Variables	(1) Low Market	(2) Middle Market	(3) High Market
Firm Age x Product design	-0.1966**	0.0838**	0.1128**
	(0.079)	(0.036)	(0.046)
Controls	Yes	Yes	Yes
Observations	300	300	300

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

5.0 CONCLUSION AND RECOMMENDATIONS

This paper attempts to reveal the probability of Tanzanian agro processing SMEs to participate in three markets namely low traditional, middle and high international market segments. Based on ordered probit marginal effects model the results reveals that product differentiation strategy is a gear to improving market participation among the three markets.

The key finding unveils that improvement on product design which is a proxy for product differentiation boosts product value necessary to capture next market levels. Improvement in product differentiation makes products superior relative to those that are not improved. This is evident on less likelihood of improved products to participate in low traditional market as opposed to more likelihood of same products to participate in the middle and high market levels.

The policy outlook of the article is institution of SMEs subsidy and soft loan schemes in order to boost their financial capacity. This will enable SMEs investment in product differentiation especially in acquisition of modern technology and staff capacity building through short and long-term training. Advisory services rendered by respective organs such as SIDO and relevant higher learning institutions that would enhance value addition through product differentiation are also necessary. All these would support economic growth through improved SMEs market participation into higher market levels by capturing significant sales volumes in agro processing industry.

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