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## Article

# Drivers of competitiveness in the agricultural input sector: The case of agro-dealer businesses in Kenya

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## MANAGEMENT | RESEARCH ARTICLE

# Drivers of competitiveness in the agricultural input sector: The case of agro-dealer businesses in Kenya

E. I. Wanyonyi<sup>1\*</sup>, E. W. Gathungu<sup>1</sup> and H. K. Bett<sup>1</sup>

**Abstract:** Competitive pressure has resulted in fierce competition among agro-dealer businesses, with market share margins being divided among industry participants. This paper empirically investigates the main competitiveness drivers in Kenyan agro-dealer businesses. The study employed an exploratory research design, with primary data collected via face-to-face interviews from a sample of 110 agro-dealer businesses focusing on financial data for 2019. Business age, promotions strategies, entrepreneurship skills, and business expenditure were found to be positive competitiveness drivers, while competitive rivalry and branding were found to be constraining drivers. A policy to strengthen agro-dealer businesses' financial systems is an important step towards encouraging the adoption of new technology that will allow them to reduce operational costs while increasing revenues and ensuring proper resource utilization. Agro-dealer businesses should aim to increase their market share by utilizing promotions strategies (social media adverts, referral marketing and pull marketing) to both potential and prospective customers.



E. I. Wanyonyi

### ABOUT THE AUTHOR

Eileen Inyanji Wanyonyi holds a Master of Science in Agribusiness Management and Bachelor of Commerce (Marketing) from Egerton University, Kenya. Her key research interests are strategic management, agricultural marketing, value chain analysis, and agribusiness management. She is a former MasterCard Foundation scholar through the TAGDev Program at Egerton University, as part of the Regional Forum for Capacity Building in Agriculture (RUFORUM). Eileen has been involved in a number of agribusiness projects, including AGLEAD, RUFORUM FAPA, and BAPE Africa. She has extensive experience in research and stakeholder engagement in Kenya, and she is also an RUFORUM-affiliated agribusiness entrepreneur.

### PUBLIC INTEREST STATEMENT

Each year, an equal number of businesses enter and exit the agro-dealer industry, owing to the industry's attractiveness to new players who are unaware of its competitive nature. Businesses must also deal with seasonal imbalances and competition. As more companies enter the market, the market becomes saturated, and existing companies suffer as a result of fierce competition. While competition appears to keep businesses on their toes, forcing them to be more innovative, it is difficult to counter competitive pressure if you do not understand what drives it. As a result, evaluating a company's market share performance is critical in order to determine how to improve competitiveness. The findings are expected to improve research, development, and policy decisions, prioritize key interventions in the agrodealer industry, and assist agrodealers in understanding their market and developing strategies to remain resilient in dynamic and competitive business environments.

**Subjects: Agriculture; Marketing Management; Entrepreneurship and Small Business Management; Strategic Managements**

**Keywords: Agricultural marketing; competitiveness; market share analysis and value chain analysis**

**JEL classification: Market Share; Competitive Strategies; Porter's five forces**

## 1. Introduction

In the Kenyan agricultural input market, competition has proven to be a formidable force. Due to the dynamic nature of the business environment, businesses must look for ways to stay relevant in the industry and gain a competitive advantage. Strategic measures appear to have helped most businesses achieve a successful move toward improving their performance (Wanyonyi et al., 2021). According to Ergashev and Ravshanov (2021), an enterprise's long-term success is determined by the type of strategy it develops, so whatever competitive strategy agrodealers choose to employ must be successfully implemented or they will not be able to achieve market sustainability.

However, as much as these measures aid in their success, it is also critical for them to assess their competitiveness in relation to their industry rivals. Classical economists perceived competitiveness as a condition resulting from market mechanisms that compelled businesses to compare their production and distribution of goods and services at the best possible prices and quality with that of their competitors (Keter, 2012). These mechanisms improve the efficiency with which businesses operate by encouraging survival, increased profitability, and the elimination of inefficient firms in an industry.

By acting as a link between input manufacturers and farmers, agro-dealer businesses play an important role in the development of Kenya's agricultural input sector. As a result, they establish an efficient value chain network in Kenya's input sector (Odame & Muange, 2011). Additionally, the agro-dealer industry is a lucrative business to enter in the twenty-first century (Soi, 2016), with new businesses entering the market on an annual basis. This has resulted in a compromise in the competitiveness of agro-dealer businesses, leaving them with limited resources to fight for while maintaining their competitive position in the market. The intensity of competition has also been shown to result in low sales performance, stagnant growth and exit of the businesses. As a result, their market share performance has been on the cutting-edge, with new businesses entering the industry further reducing their share margins.

Following this, agro-dealers have become more concerned with the profits they make in the market. These figures, measured in terms of market share, have been of particular interest to businesses in order to assess how well they perform in comparison to their competitors in the industry (Cooper & Nakanishi, 1989). The gains and losses derived from market shares are critical because they heavily influence the actions that businesses will take to maintain their competitive advantage. Nonetheless, while businesses are working hard to stay competitive, the critical challenge they face is not only determining how competitive they are, but also determining what drives their competitiveness. With entrepreneurship becoming more appealing, agro-dealers must ensure their businesses succeed in an ever-changing competitive environment. Investment factors, work experience, entrepreneurial experience, education levels, and business culture are all important determinants of market share (Saleem, 2017). Furthermore, investment rates, R&D expenditures, productivity costs, and sales (Ketels, 2016) are some of the immediate drivers of a company's competitiveness and prosperity.

This paper contributes to the competitiveness literature by attempting to comprehend the competitiveness drivers in Kenya's agricultural input sector. Because of its critical role in enhancing the agribusiness value chain, the sector has recently become a focal point of political debate in the country (Odame & Muange, 2011). Furthermore, more and more businesses have been drawn into

the sector, undermining the competitiveness of the existing businesses. Businesses that strive to remain relevant face competitive pressure from new entrants as well as other underlying factors. It is important to note that the limited market share that existing businesses have been fighting for must now be shared between them and new entrants, reducing their share margins. However, there are several other unknown underlying factors that either positively or negatively influence business market share that must be established for efficiency in competitiveness. Despite their significant role in enhancing Kenya's agribusiness chain, little effort has been made to investigate what drives competitiveness in Kenya's agro-dealer market, which is a primary focus of this paper.

The rest of the research article continues as follows; section two presents the literature review, section three presents the material and methods for the study and section four presents the results and discussion of the descriptive statistics and Tobit model results. Finally, the conclusion and policy recommendations derived from the findings are presented in section five.

## **2. Literature review**

### **2.1. The concept of competitiveness**

Competitiveness has evolved over the years in response to changes in economic development and the formulation of various development theories. According to Keter (2012), classical economists saw competitiveness as a condition resulting from market mechanisms that compelled businesses to compare their production and distribution of goods and services at the best possible prices and quality with that of their competitors. In the market, there are two levels of competitiveness: firm level and industry level. Firm-level competitiveness refers to a company's ability to produce and sell superior-quality products at lower costs than competitors. Industry-level competitiveness is based on the criterion of maintaining and improving an industry's position in both the local and global markets.

According to Kiel et al. (2014), the concept of competitiveness has globalized, and thus there are rich foundational competitiveness measurements in relation to various sectors. Total factor productivity, market share, product cost, profitability, net income, sales growth, and customer and employee growth are among the notable metrics identified (Malackanicova, 2016; Sachitra, 2017; Voulgaris et al., 2013). However, when used as measurements, profitability and productivity have had drawbacks due to difficulty in comparing firms within an industry, lack of data reliability and availability, and failure of businesses to measure their quality level and innovation (Voulgaris et al., 2013), as well as untruthfulness in figures. Following this, there has been an increase in the use of market share as a competitiveness indicator.

Several studies have used market share as an index to measure a company's competitive position in a specific industry (Chikán & Chikán, 2008). According to Deniz et al. (2013), firms competing in an open market face pressure to adjust their product prices to meet the needs and expectations of their customers while also increasing their market share. Competitiveness can also be viewed as a zero-sum game (Porter et al., 2007), in which businesses compete directly, so that for one business to sell its products and expand its market share, the other business must reduce its share. According to Nazarpoori et al. (2014), market share is the percentage of total volume in a specific market in which a company sells its products. Most businesses may use market share as a metric of competitiveness to determine their relative position within the industry.

As a result, the growth of a firm's market share is proportional to its ability to gain a competitive advantage. According to Sachitra (2017), market share can be used as a competitiveness indicator in the agribusiness sector in conjunction with other indicators such as profitability and revealed comparative advantage. Ketels (2016) and Kilonzo (2016) discovered that the environment (technological, legal, economic, and socio-cultural) in which businesses operate has a significant impact on industry attractiveness, profitability, and market share.

## 2.2. Theoretical background

The study based its discussion on the resource-based view (RBV), which analyzes and interprets a business's resources to gain a better understanding of how businesses achieve an overarching sustainable competitive advantage by taking an inside-out approach. Wernerfelt contended that RBV was intra-organizational in nature and that business performance was a result of firm-specific resources (Wernerfelt, 1984). Barney (1991) defines resources as "all abilities, organizational processes, assets, firm attributes, knowledge, skills, and information." The theory emphasizes that a firm's resources are the primary determinants of its performance and overall competitiveness.

RBV assumes that firms are heterogeneous in terms of the resources they control in the industry, and that this may persist over time, implying that firms are not perfectly mobile across businesses. For businesses to achieve a competitive advantage, their resources must be heterogeneous and immobile in order to transition from short-term to long-term competitive advantage. However, while these two assumptions are required for RBV, they are insufficient to provide a competitive advantage. According to Barney (1991), non-substitutable, valuable, imperfectly imitable, and rare resources are required for businesses to achieve sustainability. These resources must provide value by capitalizing on market opportunities, be difficult to find/unique, difficult to copy or imitate, and not be substitutable or replaced by another alternative resource (Madhani, 2010).

According to Maikah (2015), the theory maintains that businesses have adequate resources in the form of assets, competencies, structure, and substitutes that allow them to gain a competitive advantage.

The theory goes on to define three types of resources: tangible (financial, technological, and physical), intangible (long-term strategies, innovation, research, and human), and organizational capabilities (business skills and competencies). Agrodealers can achieve a sustained competitive advantage when resources are used efficiently; therefore, these resources must be valuable, difficult to find, difficult to imitate, and non-substitutable. The theory is relevant to this study because it helps to answer questions about why businesses differ within an industry and how they achieve and maintain competitiveness by efficiently utilizing their resources.

## 2.3 Conceptual background

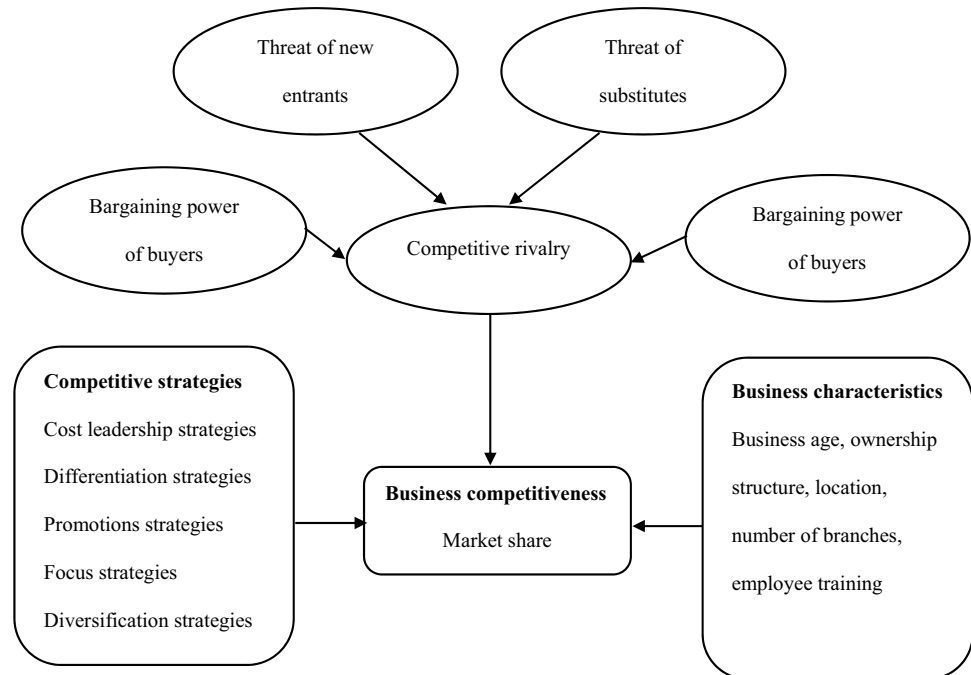
Competition is caused by the interaction of Porter's five forces: buyer bargaining power, entrant threat, supplier bargaining power, substitute threat, and competitive rivalry (Porter, 1980). Each of these forces has different indicators that determine the industry's level of competition and contribute to its strategic choice and market share. Understanding the main competitive forces is critical because they influence overall business competitiveness. Businesses can use this to develop strategies to ensure their survival and competitive advantage. Cost leadership, differentiation, diversification, promotions, and focus are all competitive strategic choices that can lead to a company's success or failure. These strategies have an additional impact on business market share. Business characteristics such as business age, location, employee size, employee training, and branch count all have a direct impact on market share. All of these factors will influence how competitive agrodealer businesses are in the industry as displayed in Figure 1.

## 3. Materials and methods

### 3.1. Study area

The research was carried out in Nakuru East Sub-County, Nakuru County, Kenya. Nakuru County, one of Kenya's leading agricultural hubs, was chosen for the study. The Sub-county is divided into five wards: Kivumbini, Flamingo, Nakuru East, Menengai, and Biashara as displayed in Figure 2, and has a total surface area of 74.3 KM<sup>2</sup>, making it the smallest sub-county in terms of area coverage in Nakuru County (KNBS, 2013). Longitude 36° 4' to 36° 8' East and latitude 0° 18' 0" to 0° 24' 30" South of the equator define the sub-county. Agriculture, tourism, and manufacturing are the main

**Figure 1. Interaction of variables under study.**



economic activities in the sub-county. The sub-county is primarily agricultural, with large and small-scale farming of Irish potatoes, maize, beans, green peas, various fruits and spices, dairy, and fish farming.

### 3.2. Sampling design

Through a cross-sectional survey, the study employed both qualitative and quantitative research designs. The study's target population was registered agro-dealer businesses in Nakuru East Sub-county. The study employed multiple sampling techniques, with Nakuru East Sub-county serving as the first purposive selection due to its centrality and agricultural resource endowment in the larger Nakuru County. Three wards in the sub-county, Menengai, Biashara, and Nakuru East, were purposefully chosen due to their proximity to farming communities, resulting in a high number of agrodealer businesses being registered. A census study was conducted, achieving a 79% response rate and 110 questionnaires returned answered as indicated in Table 1.

The study primarily focused on primary data, which was collected using semi-structured questionnaires to collect both qualitative and quantitative data, and partly on secondary data, which supplemented discussion of results. The questionnaire covered socioeconomic factors, Porter's five forces, competitive strategies, sales, and performance content. One of the study's limitations was agrodealers' lack of responsiveness, particularly to financial performance, which was important in calculating profitability ratios. This limitation was overcome by probing respondents for information on their average monthly sales. They were also requested to provide an overall estimate of their sales during peak and off-peak seasons in order to elicit sales information from them. The study chose market share as a measure of competitiveness rather than profitability.

### 3.3. Analytical model

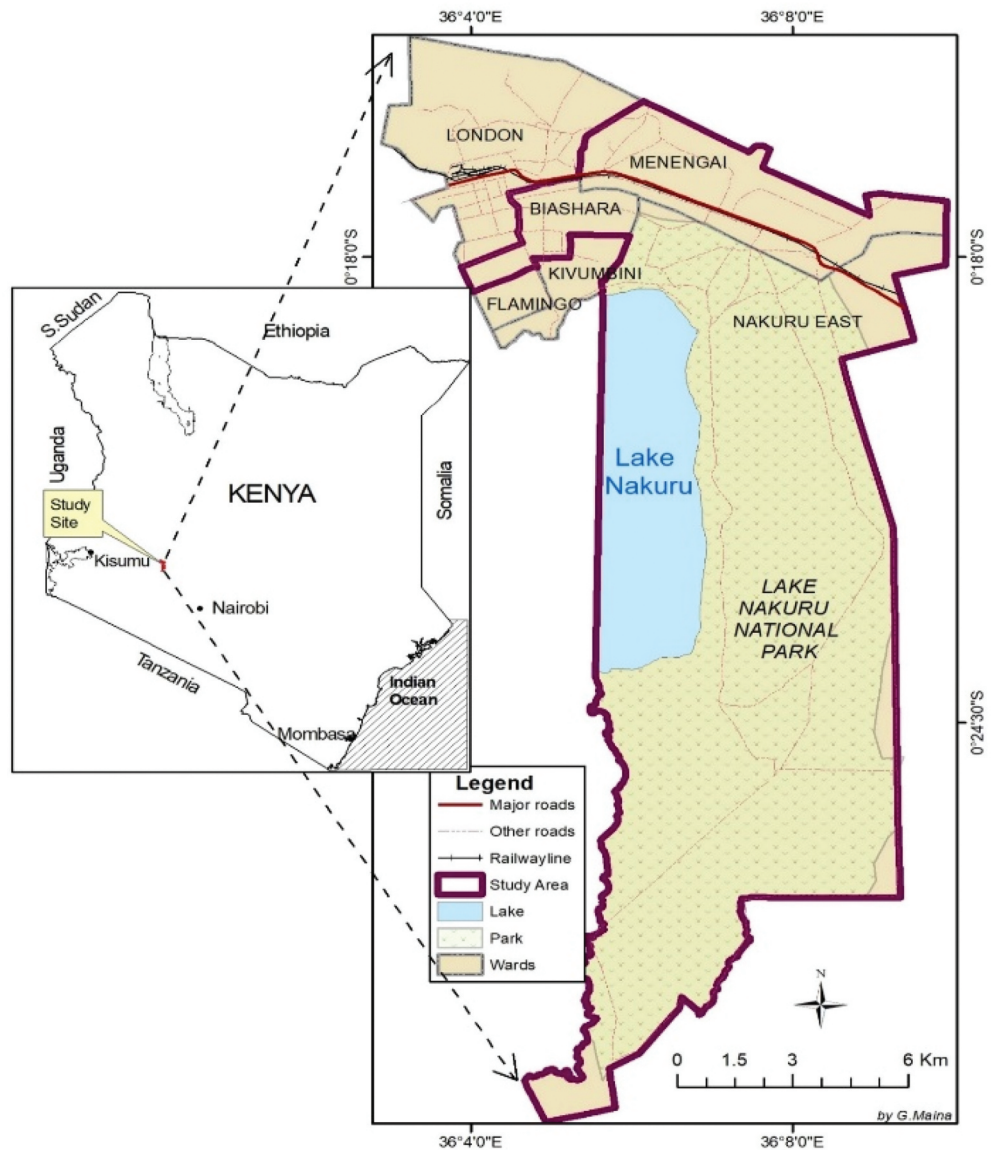
#### 3.3.1 Operationalization of variables

The dependent variable for the study was business market share(Y). Agro-dealer characteristics, business characteristics, competitive strategies and forces were independent variables in the model. Therefore, business market share was a function of;



**Figure 2. Map of study area, Nakuru East Sub-County.**

**Source:** Geography Department, Egerton University (2019)



$$Y = f(x_1(\text{agro-dealer characteristics}), x_2(\text{business characteristics}), x_3(\text{competitive strategies}), x_4(\text{competitive forces})) \quad (1)$$

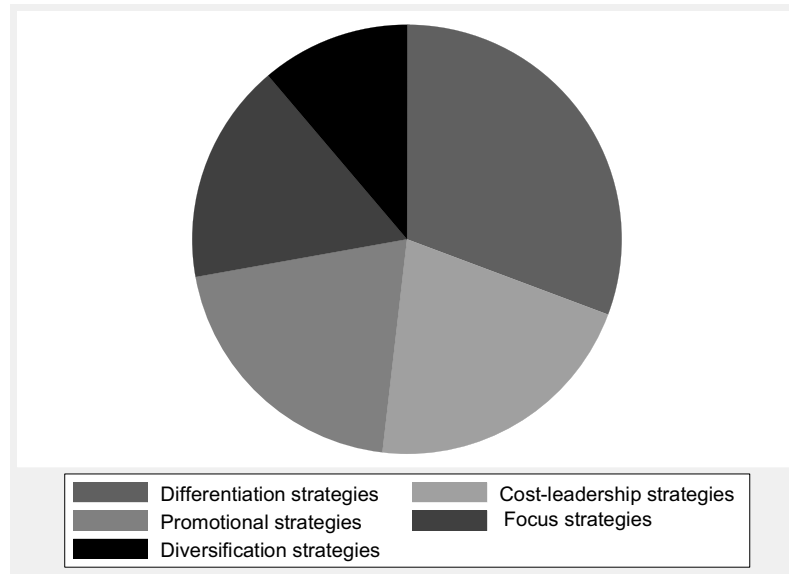
### 3.3.2 Model specification

Tobit model was found to be appropriate for analysis due to the limited nature of the dependent variable. Because the dependent variable, market share, is a continuous variable, logit and probit models were inapplicable because they require the dependent variable to be a binary choice (Gujarati, 2004). The ordinary least square method was considered for analysis, but due to biases in parameter estimates (Wooldridge, 2004) and the fact that market share could be zero or positive, it was insufficient for analysis. The first step was to compute market share:

$$y_i = \frac{Q_i}{Q} * 100 \quad (2)$$



**Figure 3. Usage of competitive strategies among agro-dealer businesses in Kenya.**



Where;  $y_i$  is the market share margin,  $Q_i$  is the sales of business  $i$  while  $Q$  is the total sales for the market computed as  $Q = \sum_{j=1}^m Q_j$  with  $m$  being the total number of competing businesses in the market.

Market share was then regressed against the business and agro-dealer characteristics, competitive forces and strategies to determine their influence on it:

$$y_i^* = \beta_0 + \sum_{n=1}^k \beta_n x_{in} + e_i \quad (3)$$

$$y_i = \begin{cases} 1 & \text{if } y_i^* \geq 1 \\ 0 & \text{if } y_i^* < 1 \end{cases} \quad (4)$$

Where;  $y^*$  is the latent market share margin,  $y_i$  is the market share margin of the  $i^{th}$  business,  $i$  is the  $i^{th}$  agro-dealer business,  $\beta_0$  is the population intercept,  $\beta_n$  are parameters to be estimated,  $x_{in}$  are the independent variables (competitive forces and strategies and agro-dealer and business specific factors) while  $e_i$  is the error term which is normally distributed.

The description, measurements and expected signs of variables used in the Tobit model of analysis are displayed in Table 2 below.

## 4. Results and discussion

### 4.1. Agro-dealer and business specific characteristics

Male respondents made up 58.18% of the total, with females accounting for the remaining 41.82%. These findings support the findings of Bayesian Consulting Group (2016) and Misiko and Bulinda (2012), which found that there were more male respondents than females, indicating a low participation rate of women in business management and ownership. The average age of the agro-dealers was 35 years, indicating that the majority of agro-dealers in this business are young and enterprising. High levels of education provide individuals with the knowledge and skills required to make informed decisions and implement actions aimed at increasing business competitiveness. According to the findings, the majority of agro-dealers (46.36%) had completed a graduate level course. Okello et al. (2020) and Wanyonyi et al. (2021) found out that through

education, business owners and managers can gain adequate skills, knowledge, and insights into efficient business management.

According to the findings, majority of the businesses are in the maturity growth stage based on their age, which was discovered to be 9 years of market operation with the shortest being 1 year (0.9%) and the longest being 30 years (1.9%). As the age of the businesses increases, agro-dealers master the art of doing business, taking note of areas within the industry that are still untapped and gaining entry into such areas, which in the long run will enable them to expand their market base and, as a result, market share margins in the industry. Additionally, the longer a business has been in operation, the better its chances of survival and performance. Previous research, Misiko and Bulinda (2012) and Odame and Muange (2011), documented that the majority of the businesses were relatively young, having been in operation for less than 5 years.

The majority of the businesses were sole proprietorships, demonstrating the locals' entrepreneurial spirit. In terms of the number of business branches, the majority of companies only had one. This is attributed to the fact that the industry requires significant capital investment, has stringent government policies, and its competitive nature preventing them from opening additional branches. As a result, they are hesitant to open more branches because they do not know how the market will behave in the future.

Agro-dealers (45.5%) were less likely to be members of a group. The majority of them stated that they do not have time for group associations, and others stated that groups in their industry were not as efficient as groups in other industries. Similar findings were established by (Bayesian Consulting Group, 2016), who established that agro-dealer associations were not as engaged, with the majority of them having few agro-dealer members. Agro-dealers (35.5%) had not pursued diversification into other businesses, whether related or unrelated to the business. Income generation was the main reason for diversification, particularly during off-peak seasons. However, 64.5% of businesses did not diversify, with the most likely reason being that most are sole proprietorships, which are risk averse in taking on other businesses and prefer to stick to the input business only due to limited access to capital. Odame and Muange (2011) findings however contradict where they established that most agrodealers diversified into other agricultural and non-agricultural items with the goal of risk coping for survival during low seasons, which contradicts these findings.

In terms of business-related training, 73.64% had received formal training. This implies that the majority of agro-dealer businesses are run by employees who are knowledgeable about the industry, and thus the businesses are more likely to perform well. Furthermore, only 40.9% of businesses provided employee training. Employees must be trained on a regular basis to stay current on product, market, and new technology information, which increases their productivity, sales, and market share.

#### *4.1.2 Strategic usage among agro-dealer businesses*

The strategic usage among agro-dealer businesses is presented in Figure 3 below. According to the study findings, the majority of businesses (30.71%) used differentiation strategies over other strategies. Product packaging based on buyer preferences was a popular differentiation strategy among businesses. The majority of businesses argued that because the industry is so homogeneous, they needed to actively differentiate themselves in order to appeal to existing customers and attract new ones. Agrodealer businesses can gain a larger customer base by differentiating themselves. The second most popular strategy was cost leadership, which was used by 21.16% of respondents. The strategy, however, did not appear to be viable for competing in the industry. This is because most of the products are in the same price range, so lowering their prices has little impact, and customers have always purchased inputs from an agro-dealer business that was easier to locate.

Promotions strategies account for 20.33% of all strategies, while focus strategies account for 16.6%. In contrast to Menengai and Flamingo wards, focus strategies were widely used in Nakuru East ward with a focus on animal feeds. One possible explanation is that the majority of farmers in Nakuru East ward keep livestock, so animal feed products were widely consumed and sold in the area. Diversification strategies were the least popular among agro-dealer businesses, with only 27 businesses diversifying into related or unrelated businesses.

## 4.2. Results of Tobit analysis

### 4.2.1. Diagnostic tests

Prior to estimation of the Tobit model, two diagnostic tests are performed: multicollinearity and heteroskedasticity tests. The variance inflation factor was used to test for multicollinearity between the independent variables (VIF). According to Gujarati (2004), multicollinearity exists when the VIF is greater than 10. Because all of the independent variables had a VIF of less than 10 and a mean of 1.98, multicollinearity was ruled out. The Tobit multiplicative heteroskedasticity test was used to determine the presence of heteroskedasticity among the variables. The results showed a high p-value of 1.000, indicating that the null hypotheses for the variables were rejected, hence absence of heteroskedasticity. The results were then subjected to a post estimation test using the marginal effect to estimate the trivial change from each of the selected independent variables influencing market share.

### 4.2.2. Drivers of competitiveness in agro-dealer businesses in Kenya

Competitiveness was measured using the market share metric for appropriate policy review analysis. The average sales of individual businesses were calculated in the first step by taking the average of peak and off-peak season sales for the year 2019. The total industry sales were then calculated by averaging the sales of the 110 agro-dealer businesses in Nakuru East Sub-County. Using the Tobit model, competitive forces and strategies, as well as selected agro-dealer and business specific characteristics, were then regressed against the businesses' market share. Table 3 displays the findings of the descriptive statistics while Table 4 presents the Tobit analysis.

According to the findings, the age of the business had a positive influence on market share, implying that every unit increase in business age increases their market share by one unit. Businesses that have been in the industry for a long time and are relatively more proactive to both new and old trends in the industry, have managed to gain a larger customer base than young businesses, and thus have a wider market scope. These findings are consistent with those of Abuor (2014) and Kotey et al. (2020), who found that the age of a business is a clear indicator of its market status, with those that have been in operation for many years having accumulated economies of scale, implying that younger firms had low market shares while older firms had a high market share. However, Voulgaris et al. (2013) argue that young businesses, as opposed to older businesses, are more aggressive in using modern promotional tools and technology to gain a larger market share.

The use of promotional strategies was found to have a positive relationship with business market share performance. The plausible reason is that promotions strategies allow a company to reach out to more customers and enter new markets, thereby expanding its operational base.

**Table 1. Total number of agrodealer businesses per sampling ward**

Sampling wards	Agrodealer businesses per ward	Sampled businesses per ward
Biashara	63	51
Nakuru east	51	43
Menengai	24	16
Total	138	110

**Table 2. Description, measurements and expected signs of variables used in the Tobit model of analysis**

Variables	Descriptions	Variable measurement	Expected sign
<i>Market_share</i>	Market share percentage	Continuous	
<b>Independent variables</b>			
<i>Age</i>	Age of the agrodealer	Continuous	+
<i>Gender</i>	Gender of the agrodealer	1= male, 2= female	+/-
<i>Grp_mbrshp</i>	Membership to agrodealer groups	1= yes, 0= no	+/-
<i>Educ_years</i>	Agrodealer's level of education	0= no schooling,	+
		1=primary,	
		2= secondary, 3=tertiary,	
		4= graduate,	
		5= postgraduate	
<i>Work_exp</i>	Agrodealer years of experience	Continuous	+/-
<i>Businessage</i>	Operation years of the business	Continuous	+/-
<i>Bs_branch</i>	Number of business branches	Continuous	+/-
<i>Ownstructure</i>	Business ownership structure	1= sole proprietorship, 2=	+/-
		partnerships, 3= company	
<i>Other_bs</i>	Engagement in other businesses	1= yes, 0= no	+/-
<i>Emlytraining</i>	Trainings of employees by the business	1= yes, 0= no	+
<i>Criv</i>	Competitive rivalry	Continuous	-
<i>Bbyrcsts</i>	Buyer switching costs	Continuous	+/-
<i>Branding</i>	Branding	Continuous	+
<i>Prdctsub</i>	Product substitution	Continuous	+/-
<i>Oprtnlcsts</i>	Operational costs	Continuous	+/-
<i>CLS</i>	Cost leadership strategy	1= yes, 0= no	+
<i>DIVS</i>	Diversification strategy	1= yes, 0= no	+/-
<i>DIFFS</i>	Differentiation strategy	1= yes, 0= no	+/-
<i>FS</i>	Focus strategy	1= yes, 0= no	+/-
<i>Prmtns</i>	Promotions strategy	1= yes, 0= no	+/-
<i>Bs_expenditures</i>	Overall business expenditure	Continuous	+
<i>Entre_skills</i>	Entrepreneurial skills		+

Furthermore, through promotions, agrodealers can communicate with their customers, stimulate product demand, and emphasize the value of their products, allowing them to maintain stable and consistent market sales, which leads to an increase in market share. These findings are consistent with those of Adefulu (2015), Erdil et al. (2017), and Kilonzo (2012), who established that businesses can expand their market shares through promotional strategies such as branding, sales promotions, and personal selling.

**Table 3. Descriptive statistics for agro-dealer and business specific characteristics**

Continuous Variables			
Variable	Mean	Std. Err	
Age	35.136	0.796	
Work_exp	9.268	0.692	
Business age	9.132	0.604	
Bs_branch	1.236	0.046	
Categorical Variables			
Variable	Description	Freq.	Percentage
Gender	Male	64	58.18
	Female	46	41.82
Educ_years	secondary	5	4.55
	certificate/diploma	43	39.09
	graduate	51	46.36
	postgraduate	11	10.00
Group_mbrshp	No	60	54.55
	Yes	50	45.45
Ownstructure	sole proprietorship	81	73.64
	partnership	15	13.64
	company	14	12.73
Other_bs	No	71	64.55
	Yes	39	35.45
Empty_training	No	65	59.09
	Yes	45	40.91

Market share was impacted negatively by competitive rivalry. The most likely explanation for this is that as more businesses enter the industry, existing firms feel the pressure from competition and seek ways to maintain their survival and competitive edge. However, due to an increase in businesses, the market has become saturated, forcing them to offer forced product/price discounts and sales in order to keep their stock moving. Furthermore, with increased rivalry, existing businesses' market share decreases drastically as they must now divide the market resources among several agrodealer businesses. The findings presented above are consistent with those of Chesula and Kiriinya (2018), Mburu (2015), and Mugo (2020), in which they noted that competitive rivalry has a significant impact on business performance and that businesses must devise strategies to overcome it in order to remain competitive. However, findings by Boafo et al. (2018) and Kulmia (2014) contradict the preceding, establishing that intense rivalry had a positive relationship with business market performance through creating value for their customers, propelling them to increase their market share.

The branding variable was found to be statistically significant at 1% and had a negative relationship with market share. One plausible explanation is that, because the agrodealer industry is highly homogeneous, branding does not improve business performance. Besides, since agrodealers sell similar products at comparable prices, it is assumed that all businesses appeal equally to customers. Spreading sales and profit margins across the industry only leads to poor industry performance. Nonetheless, the study found that the majority of agrodealer businesses do not engage in branding activities because they sell products from various manufacturers. Surprisingly, the majority of these establishments and business premises are branded by their suppliers, such as Baraka Fertilizers, MEA Fertilizers, and Kenya Seed Company. As a result, it is not surprising that when walking through town, one can easily identify businesses by their supplier brands. This is in

**Table 4. Tobit model results on drivers of competitiveness of agro-dealer businesses**

Variables	dy/dx	Std. Err.	P>z
Age	−0.009	0.050	0.853
Gender	−.0330	0.352	0.348
Educ_years	0.171	0.246	0.487
Work_exp	−0.052	0.059	0.373
Group_mbrshp	−0.345	0.369	0.349
Ownstructure	−0.024	0.259	0.928
Businessage	0.063	0.028	0.027**
Bs_branch	0.323	0.362	0.373
Other_bs	−0.498	0.353	0.158
Emptytraining	−0.320	0.338	0.343
CLS	0.281	0.355	0.429
DIFFS	−0.239	0.371	0.519
Prmtns	0.893	0.354	0.012**
FS	0.003	0.355	0.993
DIVS	0.092	0.391	0.814
Competitive rivalry	−0.427	0.184	0.021**
Product substitution	0.018	0.189	0.924
Branding	−0.435	0.195	0.026**
Buyer switching costs	−0.295	0.200	0.139
Operational costs	−0.232	0.207	0.261
Bs_expenditures	0.804	0.063	0.000***
Entre_skills	0.102	0.062	0.096*

\*, \*\*, \*\*\* indicates significance at 10%, 5% and 1% levels respectively

Notes: n = 110; LR chi2(22) = 140.23; Pseudo R2 = 0.2544; Prob > chi2 = 0.0000; Log likelihood = −205.44458

contrast to the findings of Erdil et al. (2017) and Kilonzo (2012), who established that business branding helps them increase their market share and profitability levels.

Business expenditure had a positive impact on business market share. Improving market share entails, a variety of activities, such as continuous marketing to reach a wider range of customers. Increasing spending on promotional activities, research and development, employee training, and marketing activities targeted to reach a larger audience. As a result, the companies can sell their products in new markets, retain and acquire new customers, and increase their market share relative to their competitors. These findings are consistent with those of Konak (2015), who discovered that increasing marketing, employee training, and research expenses significantly improves business competitiveness. However, Asogwa et al. (2012) and Kiaritha et al. (2014) discovered that cutting business operational costs allows a company to achieve maximum productivity rather than increasing costs.

Entrepreneurial skills, when well-articulated, improve business competitiveness by increasing market share. Businesses can equip their employees with skills to specific business activities that increase their competitiveness through productivity by investing in skill development, such as formal education and on-the-job training. With the new trends in agricultural technology, agro-dealers must have highly skilled personnel and continually improve their skills to maintain a competitive edge in the market. These findings are consistent with those of the International trade Center (2019), Onsomu et al. (2010), and Porter (1990), who stated that skills generally contribute positively to the competitive growth of businesses both locally and globally by incorporating them into their production processes.



## 5. Conclusion

The goal of this paper was to identify the competitiveness drivers in Kenyan agro-dealer businesses. The Tobit regression model was used for data analysis, with market share calculated from industry sales and regressed against selected variables to examine industry competitiveness drivers. While competitiveness measures are important in determining the competitive position of agrodealer businesses, findings revealed that only four variables: business age, promotion strategies, business expenditure, and entrepreneurial skills produced positive results. Branding, on the other hand, which was expected to be positively related to market share, produced negative results. The fierce competition among businesses also negatively influenced competitiveness of the businesses. In conclusion, a variety of factors influence business competitiveness; therefore, it is critical for business owners to understand which factors influence their business in order to devise strategies for mitigating competitive pressure.

## 6. Policy implications and suggestions for further studies

To scale-out competitiveness through the integration of competitive strategic measures, the government needs to work with agrodealers, private sector, farmers, and agricultural research centers to develop efficient policy frameworks that incorporate the benefits of strategic approaches and new advanced agricultural trends. Gaining a competitive advantage and a greater market share necessitates businesses making the best use of their available resources. Despite the fact that business spending had a positive impact on market share, a policy to strengthen the financial systems of agro-dealer businesses is an important measure to encourage the adoption of new technology that will help cut operational costs while increasing revenues. Businesses' advertisements via promotions strategies are critical for reaching out to both existing and prospective customers.

There is also a need to encourage agrodealers' entrepreneurial attitudes (innovativeness, proactiveness, and risk taking) toward the adoption and use of various competitive strategies. This has major policy implications, especially if a new company enters the market. Given the importance of entrepreneurial skills in business competitiveness, programs aimed at entrepreneurial training through knowledge development and dissemination to address the three key aspects of proactiveness, innovation, and risk taking among agro-dealer businesses must be implemented. Due to study constraints, the research did not capture agro-dealer business profitability, despite the fact that it is an important competitive indicator. As a result, more research can be conducted on how competition affects business competitiveness, with profitability serving as a measure of competitiveness.

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