

# **Determinants of Competitive Negotiation Style in Agribusiness Trade of High Value Food Crop Products in Tanzania: Evidence from Middlemen in Arusha, Tanzania**

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## **ABSTRACT**

*This paper explored the role of competitive negotiation style in agribusiness food value addition in Tanzania with insights from Arusha, Tanzania. Cross sectional survey of 280 middlemen were involved in the commodity's value chain in Arusha main markets. A multiple regression analysis was conducted to determine main factors contributing to competitive negotiation style but also on their disaggregated effect on agribusiness trade performance. The results showed that competitive negotiation style through self view point, self gain, self win and self outcome had a negative effect on agribusiness performance. In this study it was found that competitive negotiation style had negative significant impact on agribusiness trade performance. The model had high concern for self and low concern for others. The low concern for others had been founded to add negative performance and made it to be the highest negative impacted model. In this notion once one side of the negotiating part found to have less considered by other part the negotiation process tends to be hard with negative performance. It was concluded that competitive negotiation style was not effective model on high value crops but it can be done in a non-competing way (competing-un-competing). Competitive negotiation style can further be reflected on diplomatic arena as non-productive way of conflict and disputes management, in leadership and interpersonal relationship.*

**Keywords:** *Competitive Negotiation Style, Agribusiness trade, High value food products, Tanzania*

## **INTRODUCTION**

Agribusiness trade performance is an essential key element of other economic sector performance. According to Bueno (2021) agribusiness sector has been reported to have poor performance on income gains and direct production which in turn do not always convert into food security and community welfare in Tanzania. Negotiation styles are involved in many management levels of any firm. In this regard; negotiation expertise might be one of the reasons for the poor performance of the agribusiness sector. Echessa (2020) relate firm performance with strategic consensus, firm structure and resource allocation. In his study, the researcher found out that; there is a significant relationship between strategic consensus and performance of the firms. He also found out a significant relationship between firm structure and the performance. Furthermore, Agribusiness trade performance can be attributed by many factors as articulated by some scholars.

For instance, Mwambungu (2019) argued on rural financial institution in Tanzania on its great impact on agribusiness trade performance on SME. Similarly, Diannisa *et al* (2019) related capital structure and firm financial performance on agribusiness. On the other side, Lekule (2019) studied the role of information technology on agribusiness trade performance in Tanzania. Also, Bajan *et al* (2020) contended on carbon footprint in relation to the environmental performance with agribusiness. Nsumilinda (2021) explored government structure and its influence on performance and it was found out that; the existing functional governance structure did not favor sustainable supply chain performance. In addition to that, Marwa *et al* (2021) studied youth employment on agriculture sector especially on high value crops. The study found out that youth were benefiting contractual farm on French Beans. Also, the study found out that the increase of yield by 17%. This increase of yield accounts the increase of household income by 34% and 37.5%. On the other hand, Temu *et al* (2005) defined high value crops as the non-traditional food crops such as; fruits, houseplants, flowers, and foliage as well as condiments and spices vegetables. These products are said to have higher value than traditional cereal grain due to its nature of supply. Msafiri *et al* (2021) articulated some of the high value crops that are grown in Tanzania including; Arusha, Kilimanjaro, Morogoro, Iringa, Mbeya, Tanga, Ruvuma, Manyara and Zanzibar region such as vegetables, fruits, flowers

and spices. Some of these horticulture products include; baby corns, baby carrots, onions, flower seeds, roses, potatoes, cabbages, tomatoes, avocados, pineapples, banana, oranges and jackfruits.

### **Competitive Negotiation Style**

Agribusiness involves negotiation process from farming stage to harvest stage. Negotiation chain in agribusiness is very long from input suppliers to the final consumers in the market (Nematollahi *et al* (2021) and Verano *et al* 2022). This study explored competitive negotiation style, agribusiness trade performance and high value food products. The most negotiation model well known are competitive, collaborative, compromise, avoid and accommodate (Blake & Mouton, 1964; Deutsch, 1949). Negotiation process has also been articulated by Gurieva *et al* (2021) on intelligence perspective. As transaction process is linked by negotiation process the intelligence on negotiation influence trade performance is important. The adaptation of the tactics relies on the negotiation side whether he/she choose to accommodate, compete, compromise, avoid or collaborate. Apart from that factor analysis of behavior in conflicting it was found that cooperation and competitive style had negative significant relationship with conflict avoidance.

In the same study by Gurieva *et al* (2021) through comparative analysis, avoidance and competitive were found to have differences while competitive was found to be significant. Competition is one of the negotiation tactics which use the model of I win, you lose, in this style negotiator benefit by using whatever it takes to attain their desired goals. Factor analysis of behavior in conflicting situation urge to avoid by 0.614 cooperation and competitive had a negative significant relationship with conflict avoidance. Apart from that; Kang *et al* (2018) using Kraljic Portfolio Matrix (KPM), found out that; 58% of negotiators prefer competition and 33% prefer collaboration on the items with low risk and high profit. In this matter, nature of the trading product influence competition due to the lowest amount of risk and potential profit. In this study the correlation of increases of supply risk went in hand with decreases on percentage of using competition example items on Bottleneck i.e. high risk, low profit used 14% while high supply risk and high profit used 6%. On this study, it was interestingly found out too that; collaboration was used by 79% on strategic items i.e. high supply risk and high profit potential. On other sense, the items perceived here were perishable goods. Collaboration observed as the solution for the trade

performance for creating win-win situation whereby one side avoided the risk and the other side benefit the cooperative price given by the trader. Accommodative negotiation style was mainly opted for bottleneck items. In addition, competitive negotiation style has not only associated with the factors above but also power distance found significant positive relationship with competitive negotiation style. Caputo *et al* (2019) on studying negotiation process, cultural values and intelligence were correlated. On that analysis positive significant relationship were found between the variables. Power and distance were found to be influenced by cultural values and intelligence. However, the researcher didn't consider nature of the products i.e., life shelf, climate change, transaction cost and other risk which can alter negotiation style. Competitive negotiation style is most preferred and frequently used on trade this is in regards to its distributive nature. Bouwman *et al* (2019) studied cooperation and competition on public sector. In his results, competition was found to be reliable. Competitive negotiation style has been also related on gender basis. Mukundan *et al* (2018) studied the variables and analyzed by using multivariate test of analysis of variance (MANOVA) and One-way analysis of variance (ANOVA).

Significant difference was found basing on sex on competitive negotiation style. Males reported a higher mean value of 12.69 with an SD of 2.87 than the female counterparts in this style. Also, agribusiness trade performance may be more operational effective by optimizing contract between the buy and sell side to the supply chain, negotiation styles affect end results in agribusiness trade performance. The contracting process between buyer and seller involves a series of negotiation process (Accenture, 2012; and Gandhi, 2014). Nandonde *et al* (2013) discussed women small scale entrepreneur's negotiation process, Ngaruko *et al* (2014) researched on trade impediments for the maize and rice growers and Sultana (2012) studied rice marketing in Bangladesh. Both of the studies did not consider impact of middlemen negotiation process in relation to agribusiness trade performance. The competitive negotiation style has shown negative performance. The competitive model has high concern for self and low concern for others. The low concern for others has been founded to add negative performance and made it to be the highest negative impacted model among the three negative effect one. In this notion once one side of the negotiating part is found to have less considered by other part, the negotiation process tends to be hard

with negative performance. Competitive negotiation style has been articulated by many scholars. The articulations of this negotiation model went in different perspectives in relation to the time and persisted problems. Some researchers like Gurieva *et al* (2021) studied the aspect of intelligence in negotiation process. In their study they found out that competition had negative significant relationship with conflict avoidance. The intelligence was the main focus in their study while agribusiness trade performance was also the researcher's focus. On these different perspectives both competitive negotiation style was found to have negative impact. In this study it was found out that a unit increase of competitive negotiation style lead to average decrease of agribusiness trade performance by  $-.280$ . The total competition coefficient was the highest of the value which affected the agribusiness trade performance in comparison with other negotiation models. Competitive negotiation style in some studies was found to have significant relationship. Caputo *et al* (2019) studied the relationship between cultural values, cultural intelligence and negotiation styles. In their study, some variables were found significant with competition: power distance were founded significant with competitive negotiation style.

In their study they did not focus on trade performance in relation to the competitive negotiation style. Power distance might be significant in competition but not in trade performance. Apart from researchers above, also Kang *et al* (2018) in his study on the purchasing portfolio the competitive negotiation style was explored. In their findings the leverage items low supply risk, high profit potential competition negotiation model was used 58%. In their study the lower risk and high profit products competitive negotiation style was employed to the maximum. This study differs from theirs since the products centered during the data collection was perishable ones. In selling perishable products, it is hard to employ competitive negotiation style to the maximum with expectation of better trade performance. In this study, competitive negotiation style was employed to the maximum with the negative performance since traders were trade on perishable products. As long as the life shelf of the products diminishes its price diminishes with time. In competitive negotiation style, not only purchasing portfolio was studied. Mukundan *et al* (2018) on studying the gender role identity and conflict management styles of managers in the service sector they found out that; men were using competition whereby

women were found to have the less use of competition in conflict management. In managerial, conflicts are inescapable phenomenon. In trade conflict of the interest exists as each one of the counterparts in negotiation process tries to advance his/her interest. The study exploration in managerial sector did not account directly on economic effects to the firm/industry. In this study, the gender was not focused rather than general performance of each negotiation style in relation to the agribusiness trade performance. The slight same study was conducted by Chang (2011), in his study sub cultural difference between Taiwanese and Philippine Chinese was the main key points. In his study, competitive negotiation style was found significant between the two subculture business partners. This study was different as both of the sampled population was sharing some cultural backgrounds. The cultural differences can attribute to the use of competitive negotiation style in some different dimensions. Tanzania is one of the African countries which have little consideration of tribalism and other ethnicity consideration in some different areas of social, political and economic interaction. The prevailing circumstance leads to the interaction between the traders with less consideration of places of origin. The same study was conducted by Lowe *et al* (2020) on impact of culture on business negotiation. In their study a mixture of competitive negotiation model and collaboration was mainly used by 19%. Followed by competition and compromise opted by 11% and lastly competition itself was used by 5%. The frequent of use denotes the performance. competition itself had less used as it had less performance in trade.

### **Methodology**

The researcher applied the cross-sectional survey whereby data collected at a single point in time of study. Cross-sectional research was cost and time effective according to the nature and purpose of this study. Structured questionnaires were used during the course of data collection. In this study, the researcher used simple random sampling to get the respondents. This study involved 247 middlemen who trades on high value and perishable crops with shorter shelf life in which its circulation and its transaction needs an expert to spearhead to enhance quick transaction. This study focused on five major vegetable markets within Arusha city council. In this study, the researcher used simple random sampling technique to get the respondents. Content validity was estimated by approaching individuals of subject matter to review the questionnaire items. They were requested to review whether

each item is appropriately matched to the content area indicated. Any items that they identified as being inadequately matched or flawed in any other way, was either revised or dropped from the questionnaire. To test reliability, the researcher used Cronbach’s Alpha ( $\alpha$ ) which is the most common internal consistency measure. Heckman regression method was used after matching to test and correct for selection bias and to assess the robustness of the results. The model is indicated in equation (1).

$$Y = \beta_0 + \beta_1 X_1 + \dots + \beta_k X_k + \epsilon \dots \dots \dots (1)$$

Accordingly, the estimated model which was used in this study depended on the four exogenous variables presented in Table 2.

**Table 1: Variables Data Processing Matrix**

Variables	Description	Measurement	Interpretation of Means
<b>Competitive Negotiation Style</b>	<b>16 items</b>	<b>Scale 4 – 20</b>	<b>If M=4-8 Low; 9-13 Medium, 14-20 High</b>
View point	4 items	Scale 1 – 5	If M=1-4 Low; 2.25-3.25 Medium, 3.5-5 High
Gain	4 items	Scale 1 – 5	If M=1-4 Low; 2.25-3.25 Medium, 3.5-5 High
Outcome	4 items	Scale 1 – 5	If M=1-4 Low; 2.25-3.25 Medium, 3.5-5 High
Win	4 items	Scale 1 – 5	If M=1-4 Low; 2.25-3.25 Medium, 3.5-5 High

Inserting variables in equation (1), the structural model of the multiple regression model to be used is as presented in equation (2).

$$Competing = \beta_0 + \beta_1 View + \beta_2 Gain + \beta_3 Out + \beta_4 Win + \epsilon_0 \dots 2$$

Where:

- Competing = Competitive negotiation style total score
- View = Self View point total score competing negotiation style
- Gain = Self Gain total score of the competing negotiation style
- Out = Self Outcome total score of competing negotiation style
- Win = Self Win total score of the competing negotiation style
- B = Parameter estimate
- $\epsilon$  = Error term

## **Results**

Competitive negotiation style also was one of the negotiation style which was observed by the researcher that was frequently used during the negotiation process. In this negotiation style self concern tends to be higher while concern for other is low. On the other term it implies Win/Lose situation. In this style four variables were used to study the variable as follows; self view, self gain, self outcome and self win. The following table illustrates Dutch score on the negotiation style;

**Table 2: Dutch Forcing Score for Conflict Handling**

15	to	20	High
9	to	14	Medium
4	to	8	Low

*Source: Dutch (2001)*

According to Dutch test for conflict handling; competitive negotiation style defined on scores. High score, medium score and low score as displayed on the Table 2. Table 3 illustrates adaptation of the score which is interpreted to fit this study. The range below will provide correct answer on the frequency use of the negotiation style.

**Table 3: Adaptation of Scores for Competitive Negotiation Style**

$15 \times 247 = (3705)$	to	$20 \times 247 = (4940)$	High
$9 \times 247 = (2223)$	to	$14 \times 247 = (3458)$	Medium
$4 \times 247 = (988)$	to	$8 \times 247 = (1976)$	Low

*Source: Researcher 2021*

After the adaptation of the Dutch score for this study; both variables were computed so as to have the reflection of the adaptation score to determine its statistical interpretation. Table 4 provides the results as obtained from the field during data collection.



**Table 4: Description Statistics of the Variables**

		Statistics					
		Total Avoidance	Total Compromise	Total Accommodation	Total Competing	Total Collaborating	Total ATP
N	Valid	246	247	247	247	247	247
	Missing	1	0	0	0	0	0
Mean		13.1748	11.2713	11.4089	16.0162	15.4413	11.9433
Median		14.0000	10.0000	10.0000	17.0000	16.0000	12.0000
Mode		16.00	8.00	8.00	16.00	16.00	12.00
Minimum		4.00	4.00	4.00	4.00	4.00	4.00
Maximum		20.00	20.00	20.00	20.00	20.00	20.00
Sum		3241.00	2784.00	2818.00	3956.00	3814.00	2950.00

*Source: Researcher, (2021)*

The mean score of 16.0102, median score of 17.0000, mode score of 16 with minimum of 4 score and maximum of 20 score were also found in competitive negotiation style. The Total competing score was found to be 3956.00 This was the high frequency use of the negotiation style during negotiation. Most of the traders were found to compete intentionally to increase the margin which on other hand could be referred as the trade performance. Trade performance on this negotiation style was analyzed hereunder this study so as to confirm the hypothesis. In competitive negotiation style, the impact of competitive negotiation style was explored in relation to the agribusiness trade performance. In competitive negotiation style the following independent variables were used to study the dependent variable; self gain, self view, self outcome and self win. As competitive negotiation style is self centered negotiation style i.e. the negotiators had high rate of self concern and lower level of concern for others both of the variables intended to explore the level of self concern than the others. Both of the variables as stipulated in the table below had .000 P-value implying both independent variables had contribution to the dependent variables. Self gain intended to explore the intention that the negotiator has on self gain in the negotiation process. The standardized coefficient of -.138 was founded on

self gain. In this notion the unit increase of self gain decreases the average competition. Self view also was another independent variable on this category, the -.168 also had the same interpretation as self gain. The unit increase of self view decreases the average percentage of competition -.168. On the other hand, self-outcome was another independent variable used on exploring the dependent variable on competition. The self outcome was intended to explore the self good outcome intended by the negotiator after negotiation process. The self outcome after negotiation were perceived to have best result on one side of the negotiation. As the Table 5 stipulates a unit increase of self outcome lead to average decrease of total competing negotiation style by -.118. The last independent variable on this category was self win. As self win explains itself; here the negotiators intention of having the self win as the results of the negotiation was explored. Self win explains more clearly the competitive negotiation style as it is more clearly imply win/lose negotiation end results. The final results of the self win showed that; a unit of increase of self win lead to the average decrease of total competing by -.017. Self view was one of leading causal effect independent variable which had the greater value followed by self gain, self outcome and the lowest one was self win. As the Table 4 shows the maximum use of competitive negotiation style by 3956.00, this style used much on the negotiation. However, its independent variables were not found to be friendly on the final results of the competitive negotiation style. The impact of total competing in relation to the agribusiness trade performance were analyzed and explained hereunder in this study. The final result was of importance in recognizing the impact of each negotiation style in relation to the agribusiness trade performance.

**Table 5: Total Competitive Negotiation Style Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	16.749	1.336		12.539	.000
1 Self Gain	-.606	.428	-.138	-1.417	.000
Self View	-.802	.738	-.168	-1.087	.000
Self Outcome	-.566	.778	-.118	-.727	.000
Self Win	-.078	.655	-.017	-.119	.000

a. Dependent Variable: Total Competing

Source: Researcher (2021)

The dependent variables above; self gain, self view, self outcome and self win in total made total competitive negotiation style. Total competitive negotiation style was statistically found significant at .000 with the total agribusiness performance. The ANOVAs results gave the clear way to conclude the relationship between the total competitive negotiation style and total agribusiness performance. Table 6 summarizes the findings.

**Table 6: Analysis of Variance Total Competitive and Total Agribusiness Performance**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	782.883	1	782.883	36.745.	.000. <sup>b</sup>
	Residual	5219.870	245	21.306		
	Total	6002.753	246			

a. Dependent Variable: Total AP

b. Predictors: Total Competing

Source: Researcher, (2021)

A unit increase of total competitive negotiation style lead to the average decrease of total agribusiness trade performance by -.280. Competitive negotiation style is one of the most preferred style of negotiation by most of negotiators as it is mainly focused on self gain. The motives behind the self gain lose agribusiness trade performance however the negotiators might perceive of being having satisfactory trade performance. The independent variables in competitive negotiation style have self concern than concern for other. In competitive negotiation style the more the middlemen or counterpart wish for self gain it's more the percentage of the lost of the possible profit that could be generated when more transactions are created.

**Table 7: Coefficients of General Model**

Model		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.093	1.829		8.254	.000
	Total Accommodation	.243	.063	-.233	-3.856	.000
	Total Avoidance	.215	.074	-.004	-.070	.000
	Total Compromise	.187	.050	.226	3.725	.000
	Total Competing	.361	.073	-.280	-4.971	.000
	Total Collaborating	.224	.059	.220	3.825	.000

a. Dependent Variable: Total ATP

Source: Research Findings (2022)

Competitive negotiation style due to its nature of self gain was found on highest score of use by 3956. This was most frequently model of negotiation used by middlemen and traders in the market. The perceived margin that will be created at the end of the negotiation process motivates more the negotiators to employ the model. The fact of it being employed more is the fact of being losing the margin which could be generated on a normal profit besides of attracting super normal profit and having the self win and the other side loses.

### **Conclusion**

Competing negotiation style was one of the most frequently used models of negotiation in the market. This was done so as each trader wants to have the best self-outcome from the trade performance at the end. The model had found out to have negative performance which was vice versa of the most trader's expectation. As more competition increases the number of transactions were reduced as win/win situation was unbalanced. The super normal profit can be obtained in a short run but cannot be maintained in a long run especially when trading on perishable goods. When middlemen less compete more trade, transactions are created and normal profit are generated, despite the fact that the middlemen cannot reach breakeven point on the sell. Apart from negative significant results of competitive negotiation style on high value crops which most of them are perishable, studies shows that

competition is profitable on the products of the low risk and high profit of which most of them are non-perishable products. In this sense it can be concluded that; competition is not most suitable on perishable products such as products with the high risk.

### **Recommendation**

Competitive negotiation style should be done in a non-competing way, the negotiators should compete in un-competing way competing-un-competing. Important element of competition should be used in a less impact way. In competing un-competing way it makes the customer/ other part feel winning during the negotiation process. Negotiation process can be affected by terms in agreement which reflects the future relationship between parties whereby margin act as the catalyst for the final results. Not only that but also competitive negotiation style should not be used on perishable goods as the middlemen can be forced to sell the products at breakeven point in time of crisis. However, this might depend on the market force of demand and supply. Furthermore, competitive negotiation style cannot be only unfavorable in trading on high value products but also in conflict management, dispute settlement and in managing of diplomatic relations. As the model involves high self concern and low concern for others, it cannot be of the better result on leadership and management as well as on the interpersonal relationship.

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## **Influence of Marketing Expenses on the Profitability of the Listed Manufacturing Companies in Tanzania**

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### **ABSTRACT**

*In recent decades, marketing expenses have been one of the subjects that have taken much attention internationally due to the influence it has on the day-to-day business activities of different business companies. Several studies have been done on the relationship between marketing expenses and business companies' profitability globally. However, there are limited studies that used DuPont analysis to examine the responding variable (profitability). To bridge this gap, this study examined the influence of marketing expenses on the profitability of listed manufacturing companies in Tanzania guided by the marketing mix theory. The study used an explanatory research design whereby all data for the response variables were collected from the financial reports of the six listed manufacturing companies. This study further used 84 observations or cross-sectionals from a population of six LMCs. Descriptive and correlation analysis and pooled OLS were used for data analysis with a help of EViews. The census as a sampling technique was used to consider all 6 LMCs. The results have indicated that marketing expenses have a negative influence on the profitability explained by DuPont. This implies that if companies want to successfully increase their profitability, then they must relatively reduce their spending on marketing their products.*

**Keywords:** *Marketing expenses, DuPont analysis, Profitability, Manufacturing Companies, Tanzania*



## **INTRODUCTION**

Whether it's a small enterprise or big multinational business company, the issue of marketing expenditure aiming at advertising the company products have caught several researchers globally (Candemir & Zalluhoglu, 2011; Konak, 2015). The reason for the research on the subject is the belief that spending on marketing the products can increase the net income and profitability of business companies (Chen, 2020), improve company performance under normal environment or under the economic crisis (Candemir, and Zalluhoglu, 2011; Chouliaras, Gazepis, and Kargidis, 2015; Panigyrakis, Kapareliotis, & Ventoura, (2009) also known as a fundamental influence contributing to the growth of business companies (Al-Nimer, & Yousef, 2015). The reviewed literature elucidates those marketing activities that make company products known to consumers cannot be ignored among other strategies of business (Kodak, 2015; Wangwe *et al*, 2014). Several researchers have written lots of articles on the relationship between marketing expenses and company profitability (Kodak, 2015; Wangwe *et al*, 2014).

However, studies on how marketing expenses influence the listed manufacturing companies' profitability as explained by DuPont analysis offers a more precise valuation of the importance of changes in a firm's return on equity by concentrating on several means that a company has in order to increase return on equity (Açikgöz & Kiliç, 2021) is lacking (Akinleye & Ogunleye, 2019; Coufal, 2020; Kung'u, 2015 Utia, Dew & Sutisna, 2018). Totok, (2018) elucidates that some businesses do not budget for product marketing, believing that their contribution towards improved company profitability cannot be measured. According to the research done by (REPOA, 2020) in Tanzania, most manufacturing companies missed ways of making their products known to prospective customers regardless of the suggestions given by researchers concerning the importance of marketing the products to meet customers' demands. Therefore, this study investigated the influence of marketing expenses on profitability of the listed manufacturing companies (LMCs) in Tanzania using data extracted from the financial statements of the only six LMCs, namely Simba Cement, Twiga Cement, Tanzania Breweries LTD, TATEPA, Tanzania Cigarette and Tanzania Oxygen for fourteen years (2005 to 2018) which had 84 observations (14\*6) =84.

## **Theoretical Framework**

Gunn and Steel (2012) expresses a theory as a systematized framework that gives more understanding to the present knowledge by suggesting association, reliability and a level of likelihood and testability. This scholarly work did not anticipate formulating a theory, but to outline a connection

between marketing expenses and company profitability. Many theories could be used to explicate marketing expenses and company profitability, e.g., fact finding and analysis, physical handling, servicing, display, packaging (Borden, 1965). Instead this study has decided to consider Marketing Mix or four Ps as the relevant theory to establish focus on the study. Therefore, this study is grounded on marketing mix or 4Ps theory.

### **The Marketing Mix Theory**

The marketing mix theory was introduced to Borden (1965) from an account of a business administrative mixer known as a “mixer of ingredients” by Culliton (1948). Using Culliton’s concept, Borden (1965) came up with a marketing mix that included twelve elements known as fact finding and analysis, physical handling, servicing, display, packaging, promotion, advertising, personal selling, channels of distribution, branding, pricing and product planning. Borden’s 12 elements were refined by McCarthy (1964) to 4Ps known as place, product, promotion and price. Marketing mix known as the 4Ps was given by McCarthy (1964) as a marketing planning means which started with one P representing price (Chong, 2003). Marketing is making available the correct merchandise in the accurate locality, at the right time, and at the correct place price (McCarthy, 1964). The marketing mix or 4 Ps’ theory claims that business companies need to manufacture merchandise that a specific group of consumers want, put it on sale at some locality that the same consumers visit frequently, and put a price which is according to the value they get from the product, and do all these at a period that they need to do the purchasing (McCarthy, 1964).

The 4Ps is criticized as a framework that limits businesses to them living other three Ps suggested by Booms & Bitner (1981). Many companies try to use the 4Ps inclusively. The customers experience individual effects of each one of the four Ps on diverse occasions, places and times and other firms face difficulties in integrating these elements internally (Constantinides, 2002; Wang, Wang & Yao, 2005). Despite its limitations and may be its simplicity, this framework is still essential and many authors are still recommending it in their books (NetMBA, n.d). Despite the criticism, the 4Ps remain a principal framework of the marketing mix (Kent & Brown, 2006). Despite the preceding criticism, Ahmed and Rahman (2015) used the theory in studying the effect of marketing mix on consumer satisfaction and the finding showed a positive relationship between the four Ps and consumer satisfaction. Others studies that use the 4Ps theory with positive results include (Nuseir & Madanat, 2015; Sudari *et al*, 2019). The theory is very important in studying marketing and, in this study, it is the principal theory in learning about the influence of marketing expenses on the profitability of LMCs in Tanzania because marketing expenditures are all about manufacturing the

merchandise that a specific group of consumers want, put it on sale at some locality that the same consumers visit frequently, and put a price which is according to the value they get from the product.

### **Literature Review**

Profitability is the capacity for a business company to make a profit from its actions. Akinleye & Ogunleye (2019) and Kung'u. (2015) define profitability as the capability of a firm to earn income and, according to Utiaet al (2018) definition, profitability measures the worth of a firm and its importance to attain the company's corporate goal of profit maximization. Utiaet al (2018) indicated that profitability is not only confined to finance but also the way the firm puts together all resources to attain its desired goal. Therefore, Utia and his fellow researchers suggested that profitability is a measure of a firm's prosperity which is vital to achieving the firm's purpose of wealth maximization for its owners. On the other hand, profit is a surplus of proceeds over related expenditures for activity over a while. Terms with comparable meanings include 'income', 'earnings', and 'margin'. Lord Keynes (1936) observed that profit is the machine that motivates a business company. Each business must earn the necessary profits to continue and grow over a long period (Coufal, 2020). It is the index to economic development, better national income, and a growing standard of living.

No doubt, profit is the genuine object, but it ought not to be over-stressed. There is no doubt that the management should respond to the advice or try to earn profitability considering the community's wellbeing. For this study, the definition of Akinleye and Ogunleye (2019) enhanced with that of Sartono (2010) is adopted to define profitability as the capacity for a business company to make profit from its actions and that businesses can earn revenues associated with sales, total assets, and own capital. The researcher chose this definition because of the fact that it involves all resources together in generating profit, denoting the actual meaning of profitability, which is also measured by DuPont's sensibly holistic analysis. This study uses DuPont analysis to measure the profitability of the LMCs in Tanzania. The DuPont analysis is a model that disaggregates return on equity (ROE) into three profitability components, which are net profit margin (PM), asset turnover (AT), and financial leverage measured by equity multiplier (EM) (McGowan & Stambaugh, 2012; Teodor & Maria, 2014). In recent decades, marketing expenses has been one the subject that has taken much attention internationally due to the influence it has on day-to-day business activities of different business companies. The following reviewed literature reveals the relationship between marketing expenses and company profitability. The study of Chouliaras, Gazepis, and Kargidis (2015) indicated the importance of marketing expenses on company profitability of the Greek Enterprises

during the economic crisis. The authors used judgmental sampling due to missing some financial information for some companies and linear regression to calculate the contribution of marketing expenses to gross profit and revealed marketing as the key factor which determines business companies' profitability. Similarly, Panigyrakis, Kapareliotis, & Ventoura, (2009) attempted to find out the influence of marketing actions on profitability of the Greek firms and contended that the merchandises are made known to customers through marketing actions. Preceding authors confirm marketing expenses as an important aspect that increases sales and contributes to increasing companies' profitability. Furthermore, a research study by Mulchandani, Mulchandani, and Attri (2019) on the effectiveness of advertising of the Indian financial institutions using Koyck model and 33 banks having 462 observations confirmed the significance of advertising activities on company performance. Assessing the impact of advertising on firm performance, Mulchandani, Mulchandani, and Attri contend that positive changes are realized with increased efforts in advertising company products. Correspondingly, Al-Nimer, and Yousef (2015) studied the impact of marketing tactics on the medical corporations of Jordan employing simple linear regression analysis.

The data analyzed was taken from the financial reports of the medical companies of Jordan. The authors' findings reveal marketing expenses showing a positive relationship with medical companies in Jordan. Due to the statistical impact of marketing expenses on medical companies' profitability, Al-Nimer and Yousef's study suggest that all means should be used to make sure that the medical companies invest in marketing to improve their companies' sales and profitability. Konak, (2015) studying the effects of marketing expenditures on the performance of BIST Textiles in Turkey revealed a vital positive relationship between marketing expenses and firm performance. Similarly, the latest literature that was conducted in Saudi Arabia employing regression analysis and multiple correlation revealed an opposite relationship between marketing expenses and firm profitability (Sharma & Husain, 2015). The explanatory variables applied were wages and workers' benefits expenses ratio, salaries, marketing expenses and dealers' commission and advertising expenses, while gross operating profit was used as a response variable. Unlike the findings of the study by Sharma & Husain, (2015) which is the inverse relationship between marketing expenses and telecom firms' profitability, the study by Totok (2018) on the contribution of the marketing expense to the profitability of a Telecommunication Company in the Philippines revealed that marketing expense had a significant and positive influence on company sales which in turn increased company profit margin. This means that the efforts to increase products' marketing increases products' awareness to the customers and consumers and in turn increase

sales and profitability if product quality meets consumers' needs. The study by Hossain and Islam (2019) who examined the effect of advertising expenses and sales incentives on financial performance in Bangladesh found advertising expense to have an inverse relationship with financial performance. This implies that the more the advertisement is done, the more the company's decrease in financial performance. This can happen when the company has no competent personnel in marketing and sales of its products or when the quality of its products is too poor to be advertised or sold to improve company performance. The study on the contribution of marketing expenses to telecommunication company's profitability in Indonesia by Haryanto & Retnaningrum, (2020) using return on equity (ROE), return on assets (ROA), profit margin on sales (PM on sales), and break-even point (BEP) as proxies of profitability revealed marketing expenses as a significant factor in any Indonesian telecommunication business firm. The study by Mousa, Nosratabadi, Sagiand and Mosavi, (2021) revealed that the more the company invests in marketing, the more the firm value or firm values increase. Rehman, Shaikh and Sattar (2015) findings suggest that effective investment in marketing expenditure stabilizes company's prices in the marketplace. This means that with an advertisement, the products are made known to customers and consumers.

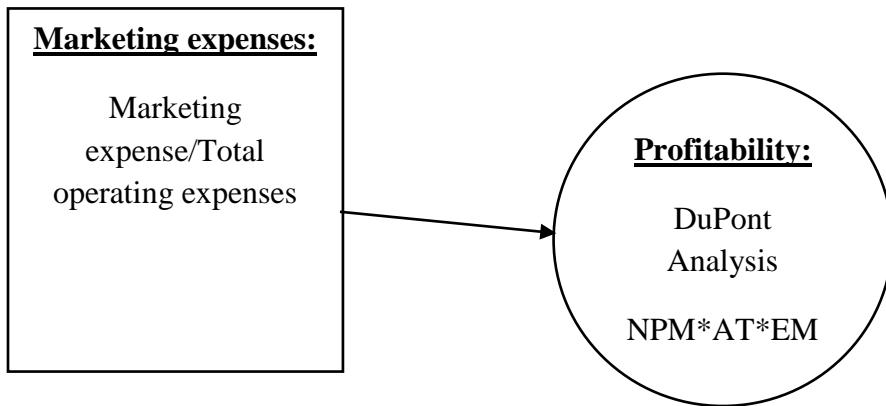
Also, while marketing the product, companies get to know their competitors' ability in the market and design marketing strategies to maintain or increase their market share. By doing so, sales and profitability are expected to increase. The study by Luo and de Jong, (2012) was later revealed by Totok (2018) indicating that reduction in advertising expense reduces company business returns. Okyere, Agyapong and Nyarku (2011) study on the effect of marketing communications on the sales performance of Vodafone in Ghana elucidates that the increase in advertisements and promotion of company products increase company sales. These results and his fellow scholars are similar to Abbas' (2012) study in Sudan on the effect of advertising on sales that found advertising activities to have a positive association with company sales. Similarly, the study of Chen (2020) on commercial banks in the US revealed that increasing marketing tasks by commercial banks increases their profitability. Rehman, Shaikh and Sattar (2015) concur with the findings of Chen by adding that increasing advertising, sales commission, and incentives can realize greater returns to the company and the study by Riaz, Furqan and Sidique (2015) add that marketing activities can attract customers and consumers' attention convincing them to buy. The reviewed literature reveals the importance of marketing expenses in improving company sales and ultimately company profitability. Weber, (2002) contends that marketing expenses include costs involved in developing products, services to the customers, public relations, advertising, sales promotion and selling and

distribution. This is what is considered in this study as marketing expenses. Study by Sehar and Ali (2022) r suggested that spending on marketing could even increase market share and increase firm profitability and that companies dealing with research and development without considering advertising of the products would not have better profitability. This implies that new brands must be marketed to the consumers to increase sales and profitability (Cavenaile, & Roldan, 2019). The issue of the influence that marketing expenses has on companies' profitability is also a subject of interest in Africa. For instance, in the research by Agbeja, Adelokun, Akinyemi, (2015) in Nigeria, marketing expenses is revealed as a necessary expenditure to increase business company profitability. The scholars used regression analysis to examine the relationship between advertising and company profitability applying SPSS. The scholars also suggest that while it is very important for every business company to advertise their goods, they should also be careful in their spending on marketing their products. Furthermore, the study by Abdullahi (2014) in Nigeria assessed the profitability and the income of the bottling firm affected by the expenses on three years' products advertisement.

The researcher used quantitative methods and correlational research design to analyse the collected data. The study recommendation was that marketing expenses should be included as one of the tactics if the bottling companies are to improve their profitability. The study by Aghara, Nwaizugbo, Oparah, and Ifeanyichukwu, (2018) recommended to the Breweries companies in Nigeria to make use of sales promotion as a strategy to increase sales and profitability. In Tanzania, Wangwe *et al.* (2014) studying the issues facing manufacturing companies in Tanzania suggest that besides making sure the manufacturing firms in Tanzania come up with outputs that meet consumers' demands, marketing them to increase market share is inevitable. Likewise, Mbura, & Sekela, (2020) study on promotional strategies and performance of commercial banks in Tanzania indicated advertising of the products as one of the vital ways of making these financial institutions flourish. Even though some studies on the influence of marketing expenses and company profitability were from the same industry, their findings were different, which could be due to their geographical, environmental, economic status and market (Sarma& Hussain, 2015; Totok, 2018). This implies that not every study can be generalized elsewhere, even if it is done in the same industry as manufacturing or finance. This is a fact that calls for further research in different geographical and economical settings, like Tanzania. The literature reviewed has revealed a very impressive impact of marketing expenses on several business performance. However, they did not look at the influence of marketing expenses on listed manufacturing companies' profitability explained by DuPont analysis, while the study by Birim *et al.* (2022) suggest

that without spending on marketing the products, companies will realize low sales and decreased profitability. For several business companies, it is marketing activities that can make the products known to the market and help the manufacturers to come up with new inventions and brands needed by consumers (Hassan, & Muniyat, 2018). However, some manufacturing companies in this study have not seen the importance of this item, while others are doing so because they did not set the budget for marketing their products for several years as indicated in their financial reports (Tanzania Tea Packers [TATEPA] 2005-2018) and Tanzania Oxygen limited [TOL] 2005-2018). Evidence show that not all business companies in Tanzania embrace marketing activities (Mwanyama, 2020). Since there is hardly a literature that examined the influence of marketing expenses on profitability of LMCs explained by DuPont analysis and in particular, Tanzania, this study therefore, aims at finding out the influence of marketing expenses on profitability of the listed manufacturing companies in Tanzania guided by marketing mix theory and therefore hypothesizes that:

*H<sub>1</sub>: Marketing expenses have a positive and significant influence on the profitability of listed manufacturing companies in Tanzania*



**Figure 1: Conceptual Framework**

Source: Author, (2018)

### **Conceptual Framework**

According to the conceptual framework, marketing expenses are indicated to have a direct relationship with company profitability. The conceptual idea is that companies will increase their sales and increase their profitability if they consider spending on marketing their products.

### **Methodology**

According to Utia *et al.* (2018) an explanatory research design is suitable where the researcher tries to explicate how the phenomenon works by finding

the primary factors that bring a change in it. In which case, there is no independent variable manipulation. This study adopted an explanatory research design to analyze the influence of marketing expenses on the profitability of LMCs in the DSE. The population was all six listed manufacturing companies. Due to the small sample size, this study used observations instead and therefore cross-sectional from the year 2005 to 2018 inclusive of each of the six listed manufacturing companies, namely; Tanzania Oxygen, Simba Cement, Twiga Cement, TATEPA, Tanzania Cigarette and Tanzania Breweries LTD, hence making a total of 84 cross-sectionals or observations (6 companies x 14 fourteen financial statements years) = 84 cross sectionals).

Because of panels, a census approach was used to incorporate all six LMCs. Data was collected from annual audited financial reports of listed manufacturing companies listed on DSE. The independent variable used in this study was marketing expenses as a percent of total operating expenses and the DuPont analysis to explain company profitability. The variables' data were extracted from the financial statements of these LMCs' websites. The data produced valid results because they were extracted from companies published audited financial statements. Since marketing expenses did influence companies' profitability, then, internal validity was verified. This study was therefore explanatory that sought to establish the relationship between marketing expenses and profitability of the LMCs in DSE, Tanzania.

## **Results**

### Descriptive statistics

**Table1: Descriptive Statistics**

<b>STATISTICS</b>	<b>DUPONT</b>	<b>MKEXP</b>
Mean	0.183452	0.387500
Median	0.265000	0.365000
Maximum	0.970000	0.840000
Minimum	-3.400000	0.000000
Std. Dev.	0.575463	0.196787
Skewness	-4.901355	0.401566
Kurtosis	29.86674	2.122172
Observations	84	84

*Source: EViews output (2022)*

Table 1 shows the summary statistics for all the variables, both dependent and independent variables. The central tendencies such as; mean, median and mode were shown. Similarly, maximum and minimum values for the data set



were also shown. The measures of dispersion were shown using standard deviation, which shows how far each of the data sets is from the average mean value of each variable. The normality of the data set was also shown such as skewness which measures the degree of asymmetry of the series. Since the acceptable value of skewness fall between -3 and +3, the data set seems to be normally skewed as the skew value nears 0 for each variable. The kurtosis for the data is also observed as 2.122 which is less than 3, which is Platykurtic type, while only one variable showed the kurtosis value of 29.86 which is greater than 3 and it is leptokurtic implying that one value was disproportionate in the sample.

**Table 2: Correlation Analysis**

Variables	Dupont	Mkexp
DUPONT	1	0.1007
MKEXP	0.1007	1

Source: EViews output (2022)

Table 2 shows the simple correlations between the variables. The results showed that marketing expenses had a positive relationship with profitability by 0.1007 units. This means that a one-unit increase in marketing expenses leads to 0.1007 increase in profitability (DuPont).

**Panel Data Analysis**

Pooled Ordinary Least Squared

The study investigated the relationship between the independent variable marketing expenses and the dependent variable DuPont.

**Table 3: Pooled OLS results**

Dependent Variable: DuPont				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	0.069291	0.139464	0.496839	0.6206
MKEXP	<b>0.294609</b>	0.321292	0.916952	0.3619

Source: EViews estimates (2022)

The derived model becomes: DuPont= f (MKEXP)

$$\text{DuPont} = 0.069291 + 0.294609 * \text{MKEXP} \dots (1)$$

From the equation (1) and Table 3, it is clearly depicted that, the model predicts that for a one unit increase in independent variable marketing expenses the dependent variable DuPont will increase by 0.294609 holdings

other factors being constant although the results showed the probability value was 0.3619 which was not statistically significant since  $p > 5\%$ .

**Fixed Effect Model**

The difference in intercept is due to difference in features of entities, the relationship can be developed for the dependent variables and independent variables. The results are as follows:

**Table 4: Fixed Effect Model**  
**Dependent Variable: DUPONT**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.070863	0.237007	-0.298991	0.7658
MKEXP	0.656298	0.593274	1.106231	0.2721

Source: EViews estimates (2022)

The derived model becomes:  $DUPONT = f(MKEXP)$

$$DUPONT = -0.0708 + 0.656298 * MKEXP \dots\dots\dots (2)$$

From equation (2) and Table 4, it is clearly observed that for a one unit decrease in independent variable marketing expenses, the dependent variable DuPont will increase by 0.656298 units holding other expenses constant. Similarly, the probability value is not statistically significant as  $p > 5\%$  confidence level, the model showed the inverse relationship between marketing expenses and DuPont.

**Likelihood Ratio Test**

To test which model to use between Pooled OLS and the fixed effect model, the fixed effect likelihood ratio test was used. The hypothesis states that  $H_0$ : Pooled OLS is appropriate/ better while  $H_1$ : the Fixed effect model is appropriate/ better. Table 5 shows the test. Note, If P value is less than 0.05 reject  $H_0$ , and conclude that fixed effect is appropriate model.

**Table 5: Likelihood Ratio Test**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.586902	(6,76)	0.0035
Cross-section Chi-square	20.944446	6	0.0019

Source: EViews estimates (2022)

Table 5 shows the cross section fixed effects; the probability value is  $0.0035 < 5\%$  significant level, which means that reject  $H_0$  is rejected in favor of  $H_1$ . Therefore, the fixed effect model is appropriate, and F.E is used for interpretation and ignore pooled OLS.

### **Random Effect Model**

For the case of Random Effect Model, the difference is done to randomness in sampling from larger universe. The relationship between the dependent and independent variables is assumed to possess randomness in its intercept.

**Table 6: Random Effect Coefficient**

**Dependent Variable: DUPONT**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000734	0.220974	-0.003321	0.9974
MKEXP	<b>0.481428</b>	<b>0.456041</b>	<b>1.055668</b>	<b>0.2942</b>

*Source: EViews estimates (2022)*

The model equation becomes:

$$\text{DUPONT} = -0.000734 + 0.481428 * \text{MKEXP} + \text{error} \dots (3)$$

From equation (3) and Table 6, it is clearly depicted that the model predicts that for a one unit decrease in independent variable marketing expenses the dependent variable DuPont will increase by 0.481428 holding other factors constant. Although the probability value is not statistically significant at 5% confidence level as indicated by  $P=0.2942$ , the model shows the negative relationship between the variables.

### **Hausman Test**

The test used to compare which model to use between fixed effect and random effect models is known as the Hausman test. The hypothesis for Hausman test is  $H_0$ : Random variable model is appropriate or better, whist  $H_1$  if the fixed effect model is appropriate or better.

**Table 7: Cross-section Random Effects**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.212356	1	0.6449

*Source: EViews estimates (2022)*

Table 7 shows the Cross-section random effects and probability value is 0.6449 > 5% significant level, the H1 is accepted and reject Ho. This means that Fixed effect model is better or appropriate than the random effect model. Therefore, the analysis is based on fixed effect model and not on the random effect model.

### **Discussion**

This study examined the influence of marketing expenses on the profitability of the listed manufacturing companies in Tanzania. The study used the percentage of marketing expenses on total operating expenses as the independent variable and DuPont analysis representing companies' profitability as the responding variable. The results of the analysis as revealed in Tables 2 to 4, marketing expenses are disclosed as having a negative relationship with company profitability. The result of this study using DuPont as a response variable concurs with the studies by Hossain & Islam (2019) who revealed advertising expenses inversely affecting profitability, and Sharma & Hussein (2015) whose results showed marketing expenses having an inverse relationship with profitability. This implies that marketing expenses can drain the liquid asset if the quality of the products is poor and are not sellable and the company keeps on increasing spending, but there is no increase in sales. Therefore, at a certain point, companies need to reduce marketing expenditures in order to increase profitability. This result may also mean that the products are high class and do not need much spending in advertising to increase sales. There are other studies that had different results from this one, like the study done by Rehman, Shaikh, and Sattar (2015) who found out that increasing advertising, sales commission, and incentives can realize greater returns to the company. Totok (2018) revealed that marketing expenses had a significant and positive influence on company sales which in turn increased company profit margin. However, the difference between the reviewed literature and this study is that this research used DuPont analysis to explain company profitability while the reviewed ones used different

variables like gross operating profit, break-even-point, and gross profit margin. Using DuPont, there is an ability to see how effective the companies are in using their assets to make sales and lastly, they can see how much leveraged their companies are, whether financed by debt or equity (Kijewska, 2016). Using the DuPont model instead of the un-disaggregated ROE helps companies to find out the strategy to be used, whether income strategy, asset turnover strategy, or leverage strategy (Kijewska, 2016). This is a different methodology that adds contribution to the stock of knowledge. The other studies did not research on how the marketing expenses influenced the LMCs' profitability but looked at bottling companies, breweries, and financial institutions to mention a few.

### **Conclusion, Implications and Recommendations**

This study adopted the explanatory research design to quantitatively examine the influence of marketing expenses on LMCs' profitability and analyzed the data with the help of EViews software. This current study concludes that while some listed manufacturing companies in Tanzania did not budget for marketing expenses but the others budgeted for the item aiming at improving their profitability. The results showed an insignificant inverse relationship. The inverse relationship implies that manufacturing companies do not need to spend much on marketing expenses to increase customers, market share and profitability but may need to keep up with the quality of their products to continue their existence in the market. However, this study was limited to LMCs, and the same study can be done incorporating all other listed companies in Tanzania meaning listed and non-listed companies.

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**Appendix:**

<b>COMPANY</b>	<b>YEAR</b>	<b>MKEX P</b>	<b>DUPONT</b>
TATEPA	2005	0.8	-0.26
TATEPA	2006	0.84	0.26
TATEPA	2007	0.44	-0.08
TATEPA	2008	0.63	0.97
TATEPA	2009	0.31	-0.11
TATEPA	2010	0.31	0
TATEPA	2011	0.31	-0.16
TATEPA	2012	0.36	0.09
TATEPA	2013	0.4	0.1
TATEPA	2014	0.41	-3
TATEPA	2015	0.4	-3.4
TATEPA	2016	0.34	0.13
TATEPA	2017	0.34	0.27
TATEPA	2018	0.37	-0.12
Tanga Cemented (SIMBA)	2005	0.26	0.3
Tanga Cemented (SIMBA)	2006	0.27	0.47
Tanga Cemented (SIMBA)	2007	0.3	0.49
Tanga Cemented (SIMBA)	2008	0.32	0.51
Tanga Cemented (SIMBA)	2009	0.25	0.33
Tanga Cemented (SIMBA)	2010	0.24	0.3
Tanga Cemented (SIMBA)	2011	0.39	0.19
Tanga Cemented (SIMBA)	2012	0.45	0.26
Tanga Cemented (SIMBA)	2013	0.47	0.18
Tanga Cemented (SIMBA)	2014	0.55	0.15
Tanga Cemented (SIMBA)	2015	0.42	0.05
Tanga Cemented (SIMBA)	2016	0.5	0.02
Tanga Cemented (SIMBA)	2017	0.14	-0.17
Tanga Cemented (SIMBA)	2018	0	-0.07
Tanzania Oxygen (TOL)	2005	0.2	-0.01
Tanzania Oxygen (TOL)	2006	0.15	0.03
Tanzania Oxygen (TOL)	2007	0.14	0.07
Tanzania Oxygen (TOL)	2008	0.15	0.09
Tanzania Oxygen (TOL)	2009	0.15	-0.16
Tanzania Oxygen (TOL)	2010	0.22	0.95

<b>COMPANY</b>	<b>YEAR</b>	<b>MKEX P</b>	<b>DUPONT</b>
Tanzania Oxygen (TOL)	2011	0.17	0.07
Tanzania Oxygen (TOL)	2012	0.2	0.36
Tanzania Oxygen (TOL)	2013	0.18	0.22
Tanzania Oxygen (TOL)	2014	0.26	0.2
Tanzania Oxygen (TOL)	2015	0.26	0.18
Tanzania Oxygen (TOL)	2016	0.25	0.17
Tanzania Oxygen (TOL)	2017	0.2	0.12
Tanzania Oxygen (TOL)	2018	0.22	0.13
Tanzania Breweries (TBL)	2005	0.63	0.46
Tanzania Breweries (TBL)	2006	0.61	0.53
Tanzania Breweries (TBL)	2007	0.66	0.54
Tanzania Breweries (TBL)	2008	0.68	0.54
Tanzania Breweries (TBL)	2009	0.69	0.49
Tanzania Breweries (TBL)	2010	0.71	0.43
Tanzania Breweries (TBL)	2011	0.67	0.37
Tanzania Breweries (TBL)	2012	0.69	0.4
Tanzania Breweries (TBL)	2013	0.72	0.35
Tanzania Breweries (TBL)	2014	0.72	0.38
Tanzania Breweries (TBL)	2015	0.75	0.34
Tanzania Breweries (TBL)	2016	0.65	0.37
Tanzania Breweries (TBL)	2017	0.63	0.25
Tanzania Breweries (TBL)	2018	0.66	0.17
Tanzania Cigarette (TCC)	2005	0.45	0.4
Tanzania Cigarette (TCC)	2006	0.48	0.33
Tanzania Cigarette (TCC)	2007	0.5	0.4
Tanzania Cigarette (TCC)	2008	0.54	0.52
Tanzania Cigarette (TCC)	2009	0.47	0.51
Tanzania Cigarette (TCC)	2010	0.48	0.29
Tanzania Cigarette (TCC)	2011	0.45	0.47
Tanzania Cigarette (TCC)	2012	0.46	0.52
Tanzania Cigarette (TCC)	2013	0.42	0.5
Tanzania Cigarette (TCC)	2014	0.47	0.35
Tanzania Cigarette (TCC)	2015	0.43	0.37
Tanzania Cigarette (TCC)	2016	0.57	0.48

<b>COMPANY</b>	<b>YEAR</b>	<b>MKEX P</b>	<b>DUPONT</b>
Tanzania Cigarette (TCC)	2017	0.52	0.25
Tanzania Cigarette (TCC)	2018	0.52	0.25
TWIGA, Cement	2005	0.2	0.42
TWIGA, Cement	2006	0.15	0.37
TWIGA, Cement	2007	0.14	0.39
TWIGA, Cement	2008	0.15	0.34
TWIGA, Cement	2009	0.15	0.35
TWIGA, Cement	2010	0.22	0.3
TWIGA, Cement	2011	0.17	0.28
TWIGA, Cement	2012	0.2	0.29
TWIGA, Cement	2013	0.18	0.17
TWIGA, Cement	2014	0.26	0.24
TWIGA, Cement	2015	0.26	0.25
TWIGA, Cement	2016	0.25	0.19
TWIGA, Cement	2017	0.2	0.19
TWIGA, Cement	2018	0.22	0.25

*Source: Listed Manufacture companies Website 2018*