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 Utia*et al* (2018) definition, profitability measures the worth of a firm and its importance to attain the company's corporate goal of profit maximization. Utia*et 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 asa 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, Adelakun, 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:

$H_{1:}$ *Marketing expenses have a positive and significant influence on the profitability of listed manufacturing companies in Tanzania*

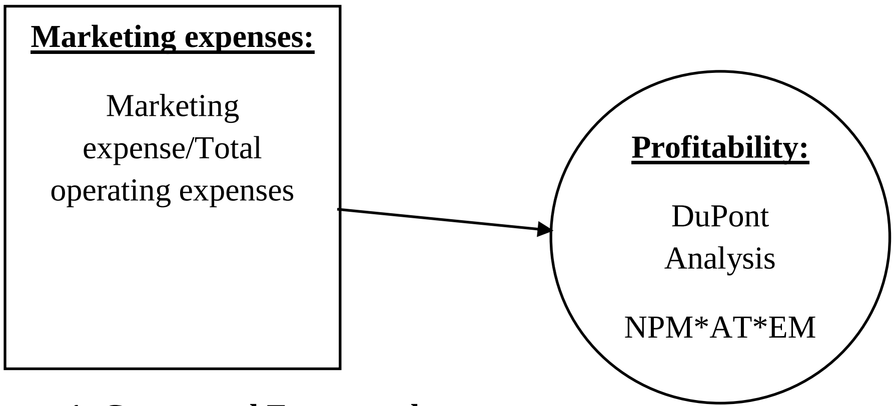

Figure 1: Conceptual Framework
Source: Author, (2018)

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

STATISTICS	DUPONT	MKEXP
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 model 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				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	0.069291	0.139464	0.496839	0.6206
MKEXP	**0.294609**	0.321292	0.916952	0.3619

Source: EViews estimates (2022)

The derived model becomes: DuPont= f (MKEXP)

DuPont= 0. 069291+ 0.294609* MKEXP …. (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 ……… (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 Ho: Pooled OLS is appropriate/ better while H1: the Fixed effect model is appropriate/ better. Table 5 shows the test. Note, If P value is less than 0.05 reject Ho, 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 Ho is rejected in favor of H1. 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	**0.481428**	**0.456041**	**1.055668**	**0.2942**

Source: EViews estimates (2022)

The model equation becomes:

DUPONT = -0. 000734 + 0. 481428* MKEXP +error… (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 Ho: Random variable model is appropriate or better, whist H1 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 markteting 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:

COMPANY	YEAR	MKEXP	DUPONT
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

COMPANY	YEAR	MKEXP	DUPONT
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

COMPANY	YEAR	MKEXP	DUPONT
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