EFFECT OF PRICE INTERVENTIONS ON FINANCIAL PERFORMANCE OF MUMIAS SUGAR COMPANY

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ABSTRACT

An economic intervention is an action taken by a government or international institution in a market economy in an effort to impact the economy beyond the basic regulation of fraud and enforcement of contracts and provision of public goods. It therefore encourages the management focus on value creation performance improvement of the organizations. Traditionally, governments have a number of times come to the aid of various organizations when they seem to hit the rock bottom. This however does not seem to be the solution to such organizations since most of them keep on nose-diving as much as the intervention is in place. This study intended to establish the relationship between price intervention and financial performance of Mumias Sugar Company. The study was guided by transaction cost theory. The study adopted a mixed research design and targeted employees working in Mumias Sugar Company and farmers (former members of defunct Mumias Out growers Company (MOCO)) in Mumias town. This included the Chief Executive Officer, the managing director, the departmental managers, the supervisors and the representatives of MOCO a total of 236 respondents. A sample of the study population was done. Questionnaires and were used as data collection instruments. To determine the validity of the questionnaire items, research experts were used to examine them and their suggestions and comments used as a basis to modify the research items. Cronbach alpha coefficient was used as a reliability test. A value of above 0.7 confirmed the reliability of the research instruments. The data was analyzed using both inferential and descriptive statistics and were presented by use of tables and figures. It was established that (β= .328, p=0.00) there exist a significant relationship between price intervention and financial performance of Mumias Sugar Company. The study recommend that the government before putting any direct injections in terms of finances to the sugar companies need to do a cost benefit analysis but more so an in-depth research on how such finance would be put to valuable use. The government should also review on the management of the Mumias Sugar Company and consider privatization of the sugar milling companies the stakeholders and more so the farmers do not feel that it is the right solution to the sugar crisis in the sugar belt areas.

Key Words: *price interventions, financial performance and social justice*

INTRODUCTION

Most governments intervene in commodities markets to achieve policy goals. These goals may be economic, such as export promotion, commodity sector protection, and price stabilization, or societal, such as hunger alleviation and equitable income distribution. Interventions in regulated futures markets can be either discretionary or automatic (often referred to as rules-based) and may be initiated by the exchange as a Self-Regulating Organization (SRO) or by the regulator charged with market oversight. Discretionary futures markets interventions usually involve

limiting, suspending, or halting trading in a particular contract market. Governments also intervene in markets in ways that broadly affect the overall cash and futures markets. These interventions may include embargoes, price controls, quotas, duties, direct purchases of buffer stocks, and other price-impacting policy measures (Chisanga, 2014).

In the early 1990s liberalization programs and market reforms swept the world economy. The international sugar industry was greatly affected, because the industry was used to a high level of state intervention, through state ownership of production facilities (factories, land) or regulation of the industry (international and domestic trade, fixing prices for cane or beet and sugar). This was, and still is, an experience present in the "centrally planned" and the "market" economies, (Kirsten et al., 2013). The liberalization and market reforms introduced processes such as privatization and deregulation, which became the cornerstone of the restructuring process, in a more globalized economic environment. A very strong ideological discourse accompanied the process of restructuring, which underlines the market forces as the main influence to determine the allocation and use of production resources (Bouwmeester et al., 2010).

Financial measures are generally accepted in assessment of the sugar industry and especially the sugar millers' business success because they are objective (Panigyrakis & Theodoridis, 2009). In financial analysis, the measures that determine a firm's financial performance are grouped into four categories namely; profitability, efficiency, leverage and liquidity. Profitability ratios measure the firm's return on its investments. Efficiency ratios measure how intensively the firm is using its assets. Leverage ratios measure the indebtedness of the firm. Liquidity ratios measure how easily the firm can obtain cash (Brealey, Myers & Allen, 2011). The sugar industry in Kenya is ailing despite its significance to the economy. Various problems like mismanagement, corruption and financial problems like payment of suppliers have hit the industry and the farmers have time and again refused to supply their cane to the millers. The sugar millers have always ended up not reporting any profits at all unless they hike their prices (Otieno, 2015). An example is the introduction of direct financial injection by the government which increased rates at which such firms get mismanaged (Oxford Business Group, 2015). Political instability and influences have also been on the rise recently which affects the operations and even the financial performance of such firms (Wanyande, 2013).

STATEMENT OF THE PROBLEM

Sugarcane is one of the industrial crops of Kenya. The sugar industry in Kenya has made a major contribution to the development of the nation. Despite its key importance to the economy, it has continued to perform dismally leading to persistent deficits in production hence government interventions (KSB, 2011). The fact of the matter is that inefficiencies in management have made cost of producing and selling sugar in Kenya prohibitively high. This has made Kenyan sugar unable to compete with cheap sugar from more efficient producers in the Common Market for East and Southern Africa (COMESA) region and the rest of the world (Okwaro, 2015). According to World Bank Report (2013), Kenyan sugar industry remains under regional and

global threat. The industry is also highly inefficient and only survives due to high tariff and non-tariff protection. The cost of producing sugar in Kenya is more than the average cost in the world. Since the inception of the sugar industry in Kenya in 1920's it has not been able compete favorably both locally and internationally, the government has been coming up with intervention measures that seek to protect the ailing industry, but there are no much improvements, (Wanyande, 2013). Despite all sorts of interventions the industry's performance keeps worsening. With the promise to improve its sugar industry, Kenya has enjoyed safeguards on sugar imports since the 2000. The government has requested for the safeguards eight times. The next two year COMESA safeguards extension ends in February, 2019. Resources have been channeled in to the sector running into billions of shillings, but the sector seems not in a position to rise above its challenges and complete favorably regionally and globally. In the long run Kenya will remain a net importer of sugar and resources and time will have been wasted pursuing a futile course (Ogolla, Njau, Mwirigi, Muui, Korir, & Mwangi, 2016). This study therefore focused on the effect of interventions in the sugar industry by examining the risks, costs, gains, and unintended consequences of specific interventionist measures. This study will focus on Mumias Sugar Company because of the recent policy actions taken by the Government of Kenya (GoK) in an effort to cushion the company from being insolvent and eventually liquidated. The company has been making losses since the financial year 2012/2013 in which it made a net loss of Kshs. 1.66 billion to a net loss of Kshs. 6.77 billion in the Financial Year 2016/2017.

OBJECTIVE OF THE STUDY

The objective of the study was to establish the effect of price interventions on financial performance of Mumias Sugar Company, Kenya.

RESEARCH HYPOTHESIS

H_{01}: There is no significant relationship between Price Intervention sand the financial performance Mumias Sugar Company

THEORETICAL REVIEW

The study was based on transaction cost theory. The fatherhood of "transaction costs theory" was attributed to Ronald Coase, who in his famous article The Nature of the Firm, in 1937, has built the judgment regarding the firm's existence without using, explicitly, the concept of "transaction costs" but that of "cost of using the price mechanism" (Coase, 1988; Demsetz, 1988). Coase substantiates his argument about the nature of the firm by emphasizing that organizing the production through the market channels (contracting by market) involves some costs. So, by creating an organization which has the responsibility for resources allocation, some expenditure can be avoided. Going forward, transaction cost theory is developed by Kenneth Arrow in 1969 and they define a transaction costs as "operating costs of the economic system." (Arrow, 1969)

Later, Williamson in 1996, founder of the transaction cost economics, believes that "the study of governance include: identifying, explaining and combating all types of risky contracts" (Wieland, 2015).

Unlike agency theory, transaction cost theory explicitly uses the concept of corporate governance (Htay & Salman (2013). This theory states that the company is a relatively efficient hierarchical structure that serves as framework to run the contractual relationships. The main concern in transaction cost theory is "to explain the transactions conducted in terms of efficiency of governance structures." (Wieland, 2015). Certainly, in addition to transaction costs, agency costs resulting from divergent relationship between manager and shareholder's interests and information asymmetry, must be taken into consideration, costs which are based on two sources the costs inherent due to an agent's use (e.g., the risk that agencies use the company's resources for their own purpose) and costs involved by protecting against the risks associated with the use of an agent (e.g., the costs of preparing the financial statements or costs consisting in the use of Stock-options techniques to align the managers and shareholders' interests) (Fulop, 2011). Therefore Htay and Salman, (2013) noticed, Transaction Cost Theory faces a complex theory incorporating interdisciplinary issues related to organizational economics and legal sciences.

Critiques of the TCT say that prescriptions drawn from this theory are likely to be not only wrong but also dangerous for corporate managers because of the assumptions and logic on which it is grounded. Organizations are not merely substitutes for structuring efficient transactions when markets fail; they possess unique advantages for governing certain kinds of economic activities through a logic that is very different from that of a market. TCT is bad for practice because it fails to recognize this difference (Liu, Sun, & Kaiser, 2012).

EMPIRICAL REVIEW

Production and trade based on free market prices maximize the welfare of individual producers as well as the national and international societies through the most efficient resource allocation. However, when market forces fail to work, governments intervene in agriculture and more so the sugar industry activities to achieve desired policy goals. Generally, governments intervene to get the market prices right in sugar industry through two types of policies. First, there are government policies that overvalue sugar products. Second, there are policies that undervalue sugar products. In Pakistan for example, government intervention in the sugar sector is a complex web of contradictory policies, particularly its support of sugar production, taxation of sugar exports and its consumer subsidy on other sugar by-products. It is generally believed that these policies have inflicted substantial social costs on economy by misallocating of resources accumulating huge budget and trade deficits (Ali & Khan, 2012).

Governments need to create the right incentives for sugar milling firms to invest. Private investment by both foreign and domestic firms contributes to the economic growth that is needed to reduce poverty in developing countries, Tyteca, (2011). Sugar firms' willingness to invest

depends on the business environment - the extent to which the laws, regulations and infrastructure within a country support or limit enterprising activities. Businesses need a degree of certainty and an acceptable level of risk. To achieve this, Clarkson, Li, Fang & Richardson, (2013) argue that countries need; a strong rule of law, enforceable property and land rights, better regulations, reduced trade barriers, proper infrastructure, a functioning tax system and an increased transparency.

Traditionally, profit maximization has been viewed as a measure of corporate performance. But accordingly, profit ought to be viewed as an all-inclusive measure of organizational relationship with the various stakeholders, (Ramanathan et al, 2012). In Barrientos, Debowicz & Woolard, (2016) study, the emphasis of price intervention is that an organization must consider the rights of the public at large, not merely the rights of the investors. Failure to comply with societal expectations may result in sanctions being imposed in the form of restrictions on the firm's operations, resources and demand for its products. This in turn affects the financial and non-financial performance of the sugar producing firms across the globe. Much empirical research has used price intervention models to study social and environmental reporting, and proposes a relationship between corporate disclosures and community expectations (Deegan, 2014).

A study on the Indonesia sugar policy to date establishes that it's characterized by often-conflicting goals, to among others: achieve self-sufficiency in sugar production, ensure the availability of sugar to consumers at affordable price; and raise government revenues by taxing sugar production. In order to achieve self-sufficiency in sugar production, the government has maintained high support prices for sugarcane and provided protection to the domestic sugar industry by imposing tariffs and other controls on the import of sugar. At the same time, the government has administered the marketing of white sugar including its rationing at fixed prices to maintain its prices low for consumers. The sugar industry has also been subjected to high taxes that over time have become an important source of the government revenue (Chatenay, 2013). These policies have achieved limited results. Price and distributional controls have basically been unsustainable over the longer run due to potentially large subsidies that would have been necessary in order to maintain consumer prices low and also because it did not encourage more sugar production. Heavy taxes on white sugar production has restricted the ability of the sugar mills sector to compete for available sugarcane supplies and led to underutilization of capacity. Despite of high support prices, sugarcane production has stagnated in recent years and yields have remained low. The result is that Indonesia today is a relatively high cost producer of sugar and large imports are still required periodically in order to meet the increasing demand for sugar. To achieving self-sufficiency in sugar production still remains an important goal of the government (Brealey, Myers & Allen, 2011).

The ministry of Agriculture in a number of sugar producing countries get involved in improving production and minimization of the cost of inputs to farmers. According to Kirsten et al (2012) governments support cane farmers with debt consolidation subsidies, crop production loans and acts as guarantors of consolidated debts. The governments also take charge of accrued payments

to the cane farmers and suppliers to various companies. All this is done to increase the productivity of farmers and output from the cane millers. Eventually, the provision of governments is to stabilize the markets for the sugar industry and ensure a consistent supply of such sugar products and byproducts in the common markets (Kassinis & Vafeas, 2011). Agricultural productivity measures the performance and provides a guide to the efficiency of the sector (Tonsor et al., 2010)

RESEARCH METHODOLOGY

Research Design

The study used descriptive survey research design. According to Sreevidya and Sunitha (2011) a research design is an outline for collection, measurement and analysis of data. It guides the entire research. Descriptive survey research design is suitable for description and measurement of phenomena at a point without manipulation. Descriptive research is undertaken to provide answers to questions of who, what, where, when and how (Sreevidya & Sunitha, 2011).

Population of the Study

Kombo and Tromp (2006) defined a population as a group of individuals, objects or items from which samples are taken for measurement. Cooper and Schindler (2011) observed that population is the total collection of elements about which one wants to make inferences. Kothari (2011) defined population as the researcher's universe. The population of this study is the entire Mumias Sugar Company workers and cane farmers. Target population refers to the entire group of objects of interest from whom the researcher seeks to obtain the relevant information for the study (Cooper & Schindler, 2011; Kothari, 2011; Oso & Onen 2011; Kombo & Tromp, 2011). These scholars argue that a population of study should possess characteristics that meet a researcher's study interests. The target population of this study therefore consisted of 200 cane farmers and 36 employees of Mumias Sugar Company. This leads to a total of 236 respondents.

Sample and Sampling Technique

Yamane's (1967) formula was used to determine the sample size. For a 95% confidence level and e = 0.05, size of the sample was determined by the formula below.

$$n = \frac{N}{1+N(e^2)} \quad \text{.....Equation 1}$$

In the above formula, n is the sample size, N is the accessible population size and e is the level of precision. Accordingly, the sample size is shown below.

$$n = \frac{236}{1 + 236(0.05^2)} = 148.4277 = 148$$

Therefore, the sample size for the study was 148 respondents.

Data Processing and Analysis

Before the actual analysis is done, the data collected was cleaned, edited, coded and stored before being analyzed. Both descriptive and inferential statistics were used for data analysis. Descriptive statistical tools included frequency tables, percentages, means, variances and standard deviations. Inferential statistics included multiple regression analysis and Pearson Product Moment Correlation. The following regression model was used:

$$Y = \alpha + \beta 1X1 + \varepsilon \quad \text{.....Equation 2}$$

In the above equation, Y is the dependent variable, α is the constant, the β_1 represent coefficient of independent variable X_1 represent independent variable, and ε is the random error term.

RESULTS AND DISCUSSION

The study results and discussion were presented using tables, charts and graphs. The analyzed data was arranged under themes that reflect the research objectives.

Price Intervention

The researcher sought to determine the effect of Price Intervention on the financial performance of Mumias Sugar Company. This helped to establish the extent to which price intervention affect financial performance of Mumias Sugar Company. The findings showed that the respondents agreed with (Mean= 4.24; Std Dev= 0.923) that our sugar company pricing practice highly follows government price interventions. The findings also revealed that the respondents agreed (Mean=4.09; Std Dev=1.138) with the statement that our company considers cost benefit analysis while evaluating its performance trends. The findings also indicated that the respondents further agreed with (Mean= 4.06; Std Dev= 1.071) that our company must eliminate all the negative externalities to ensure better performance. Again, the respondents in the study agreed with (Mean=4.00; Std Dev=1.044) that our company has a way of dealing with the price interventions in the market. Lastly, the study revealed that the respondents agreed further with (Mean= 3.65; Std Dev= 0.884) with the statement that our company has a way of controlling the market failures to establish a better performance.

These findings can be compared to the previous scholarly works. Sugar firms' willingness to invest depends on the business environment - the extent to which the laws, regulations and infrastructure within a country support or limit enterprising activities. Businesses need a degree of certainty and an acceptable level of risk. To achieve this, Clarkson, Li, Fang & Richardson, (2013) argue that countries need; a strong rule of law, enforceable property and land rights, better regulations, reduced trade barriers, proper infrastructure, a functioning tax system and an increased transparency. In Barrientos, Debowicz and Woolard, (2016) study, the emphasis of price intervention is that an organization must consider the rights of the public at large, not merely the rights of the investors.

Inferential Analysis

The correlation analysis results of the relationship between price intervention and financial performance of the Mumias Sugar Company in Mumias, Kenya was presented in Table 1.

Table 1: Price Intervention

		Financial Performance
Price Intervention	Pearson Correlation	.907**
	Sig. (2-tailed)	.001

**. Correlation is significant at the 0.05 level (2-tailed).

The study showed that there was a positively statistically significant relationship between Price Intervention and financial performance ($r = 0.907$; $p < 0.05$). This meant that price intervention has a direct influence on financial performance of the Mumias sugar company in Kenya. The findings of this study can be corroborated by other studies in the sugar milling industries. According to Kirsten et al (2012) governments support cane farmers with debt consolidation subsidies, crop production loans and acts as guarantors of consolidated debts. The governments also take charge of accrued payments to the cane farmers and suppliers to various companies. All this is done to increase the productivity of farmers and output from the cane millers.

Regression Analysis

The study established effect of price interventions on the financial performance of Mumias Sugar Company, and the results of regression analysis shown in Table 2.

Table 2: Regression Model Summary

R	R Square	Adjusted R Square	Std Error of the Estimate
.836[a]	.699	.592	.357

a. Predictors: (Constant), Price intervention
b. Dependent Variable: Financial performance

The results on model summary R= 0.836, R- square = 0.699, adjusted R- square= 0.592, and the SE= 0.357. The coefficient of determination also called the R square is 0.699. This implies that the effect of price interventions explains 69.9% ≅ 70% of the variations in financial performance of Mumias Sugar Company in Kenya. This implies that a 1 unit change in price interventions has a strong and a positive effect on financial performance of the sugar company. This study therefore assumes that the difference of 30.1% of the variations is as a result of other factors not included in this study. Regression analysis was conducted to test the influence of price intervention on financial performance of Mumias Sugar Company. The test results are shown in Table 3.

Table 3: Overall Results of ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.109	3	4.036	32.747	.001[a]
	Residual	17.008	138	0.123		
	Total	29.117	141			

a. Dependent Variable: Financial performance
b. Predictors: (Constant), Price intervention

The findings of the study in Table 4 showed that there was a statistically significant relationship between the independent variables and the dependent variable (F= 32.747; p=0.01). This therefore indicates that the multiple regression model was a good fit for the data. It also indicates that price intervention influences financial performance of the Mumias Sugar Company in Mumias, Kenya. The t-test was conducted to determine whether the individual regression coefficients of the study were statistically significant. These results were presented in Table 4.

Table 4: Individual Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	βeta		
1	(Constant)	1.557	1.303		3.195	.013
	Price intervention	.328	.083	.301	2.152	.002

a. Dependent Variable: Financial performance

Test of Hypotheses

H_{01}: There is no significant relationship between Price Intervention sand the financial performance Mumias Sugar Company

The study findings also showed that ($t = 2.152$; $\rho < 0.05$), indicating a significant relationship between price intervention and financial performance of Mumias Sugar Company. These findings meant that the null hypothesis that there is no significant relationship between price intervention and the financial performance of Mumias Sugar Company was rejected at 95% significance level. These findings concur with Tyteca, (2011) that governments need to create the right incentives for sugar milling firms to invest. Private investment by both foreign and domestic firms contributes to the economic growth that is needed to reduce poverty in developing countries. The study also agrees with Clarkson, Li, Fang & Richardson, (2013) who argue that countries need; a strong rule of law, enforceable property and land rights, better regulations, reduced trade barriers, proper infrastructure, a functioning tax system and an increased transparency. The study further agrees with Kirsten et al (2012) that governments support cane farmers with debt consolidation subsidies, crop production loans and acts as guarantors of consolidated debts. However, this study differs with Barrientos, Debowicz & Woolard, (2016) that failure to comply with societal expectations may result in sanctions being

imposed in the form of restrictions on the firm's operations, resources and demand for its products.

CONCLUSIONS

From the findings of the study, it was concluded that, there is a significant relationship between price intervention and financial performance of Mumias Sugar Company. The findings of the study indicated that every time the government policies brought any changes on the levels of prices of cane to the farmers, there would be a direct benefit to the farmers and their dependents. The ideas behind price intervention also exposes the sugar company to a lot of externalities including compensation and other market failures as people would always shy away from purchasing products whose costs are not commensurate with the benefits. The Mumias sugar company would thus lose a lot of customers as a result of negative price interventions strategies from the government agencies.

RECOMMENDATIONS

To the academia and researchers, this study has just opened up a new area that needs to be fully looked at. Since the study only looked at Mumias Sugar Company, more scholars should come up and try to see if the application of these findings can be replicated with the other sugar manufacturing companies and even to the privately managed sugar firms. The study also poses a few recommendations to the financial advisors in the country. One, that they need to rise to the occasion and do their job properly, especially in terms of financial usage and appropriations. Also, they need to advise the government on when, how and how much to be allocated to such ailing companies without encouraging misuse and proliferation of such finances by the responsible individuals.

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