

# Effects of Transfer Pricing on Tax Liability for Multinational Enterprises in Kenya's Cement Industry

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## Abstract

The purpose of this study was to examine the relationship between transfer pricing and tax liability in Kenya's cement industry. The dependent variable of tax liability was examined against independent sub-variables namely; business models, thin capitalization, tax haven utilization and intra-company payments. Using longitudinal research design, the study examined relationships between the independent and dependent variables tracked over a 10 year period starting 2005. Out of the 6 companies in the industry, the study targeted 3 companies using purposive sampling on the basis of availability of annual financial statements and affiliation to a multinational company. Quantitative data collected for this study was analyzed by both descriptive and inferential. Data presentation was then done using tables, charts and graphs. Content analysis was used for qualitative data and presentation done in prose form. Correlation and univariate linear regression analysis was done to establish existing relationships between the dependent variable and independent variables of interest. It was concluded that tax paid over the 10-year period had not been affected by business models in existence; thin capitalization practices; tax haven utilization and intracompany payments. This study therefore recommends that the tax authorities should channel resources towards studying and assessing other forms of transfer pricing abuse likely to yield better tax results than the four variables studied herein.

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## Introduction

Transfer pricing has emerged as one of the most contentious issues in international taxation (Groetzinger, Williams, & Schafer, 2011). While internally useful in performance management, its application has led to base erosion and profit shifting across borders as multinational enterprises seek to minimize overall tax liability. This study examines Kenya's cement industry within the context of transfer pricing finding that the sector has substantial investment from multinational players, a significant contribution to the country's Gross Domestic Product (GDP) and fierce competition thereby raising profit shifting concerns. Pressure on the government to grow its tax revenue has led to intense effort to preserve the local tax base by legislating and actively enforcing compliance to the existing law on transfer pricing.

At the most basic level, transfer pricing is a performance measurement and management tool useful in multi-divisional enterprises for apportioning costs and revenues to strategic business units (Atu, Ogbeide, Agbo, & Ozele, 2014; Schäfer, Petri, Gasparetto, & Mattos, 2015). Goods transferred between the different divisions should be paid for by the receiving division. By this, the manager has incentive to produce the best quality of cane possible at optimal cost. The other division on the other hand will strive to produce as efficiently as possible in order to generate a profit. The price paid by one division to another becomes the transfer price. This price can be set based on market price of similar commodities, cost and negotiating power of either division (Martini, 2011). There are many problems associated with determining the transfer price since it is income to the producing division and a cost to the division that receives input from within (Vragaleva, 2012). Sometimes, the goods passed from one division to another are intermediate products with no demand outside the company and have no market price to guide the pricing process. There also is the risk of goal incongruence within the organization as different divisions compete to achieve their objectives at the minimum cost possible while seeking to maximize revenue (Collier, 2005).

Transfer pricing for entities operating within one country is a straight forward affair but becomes complicated when the business operates in different countries with different tax laws since any cost paid from one subsidiary to another affects the taxable base in that country (Lalic & Dragicevic, 2014). Key issues that affect transfer pricing can be categorized into jurisdictional, allocation and valuation issues (Awad & Attia, 2013). Allocation problems have to do with how the multinational shares common resources and overheads between the subsidiaries within its network. Once issues of jurisdiction and allocation have been addressed, the question of valuation for the exchanged goods and services then arises as each government seeks to preserve its tax base (Pinto, 2012). Research shows that MNE's have many ways of shifting income from high tax jurisdictions to low tax ones including mispricing intragroup transactions, manipulation of capital structure, location of assets, utilization of tax havens and apportionment of

overhead costs (Janský & Kokeš, 2015). Mispricing for transactions happen when affiliates either under-invoice or over-invoice for supplies sourced within the group when tax differentials exist (Mura, Emmanuel, & Vallascas, 2013). An emerging transfer pricing concern is in the transfer of intellectual property rights or intangible assets (Gravelle, 2009b). If a patent developed and registered in a high tax country is licensed to an affiliate in a low tax country, income is shifted if the royalty and other payments are lower than the value of the license.

It can be argued that transfer pricing has existed in one form or another in Africa for as long as multinational enterprises have operated on the continent. The continent's over-reliance on financing from development partners while illicit financial flows continued denying governments the much needed tax revenue to achieve development goals. To address this concern, focusing on quantifying the illicit outflows, shedding light on how these outflows occur and making practical recommendations on ways of arresting this challenge (Hamkdok, 2012). This study acknowledges the complexity of methods through which these losses occurred including transfer pricing, tax evasion, and trade mis-invoicing and tax incentives among others. There are ongoing efforts to sign tax sharing agreements with other African countries as well as provide legal frameworks to unmask beneficiaries of anonymous nominee accounts (Andae, 2014; Irungu, 2015; Njiraini, 2014; Omondi, 2014).

Transfer pricing is primarily a performance management tool useful in decentralized organizations. Specific functions include profit allocation, coordination, cost accounting, regulatory compliance and simplification of the planning function (Schuster, 2015). A transfer price is a cost to the buying division and revenue to the selling division (Schäfer et al., 2015). This makes profit allocation the automatic outcome of any transfer prices chosen by a business. Management decisions like resource allocation and performance based rewards are informed by profits attributed to a division or subsidiary and hence affects the motivation levels for affected staff (Uyar, 2014). Challenges associated with the profit allocation function include isolation and measurement of value addition activities where processing is done in different divisions or divisions producing substitute products while sharing a common resource that is limited in supply (Schuster, 2015). The coordination function of transfer pricing comes in as a moderating force to minimize the harmful effects of a purely profit allocation based transfer pricing (Uyar, 2014). When transfer prices are set in order to allocate profits, divisional managers seek to maximize their profits sometimes at the expense of overall organizational goals or alternatively creates inefficiency in production (Dogan, Deran, & Koksall, 2013). The transfer price chosen will seek to influence the behavior of divisional managers with view to promoting goal congruence and ensure all decisions made are in harmony with the overall business objectives while minimizing conflict (Collier, 2005; Duffie, Garleanu, & Pederson, 2005). Transfer prices help simplify cost accounting by providing a basis for costing and budgeting during planning (Feinshreiber, 2004).

There are three methods of establishing transfer prices namely cost based, market based and negotiation models (Martini, 2011; Schäfer et al., 2015). Accounting literature categorizes arm's length transfer pricing methods as either traditional transaction methods or transactional profit methods. The former include Comparable Uncontrolled Pricing

(CUP), Cost Plus and Resale Price methods while the latter are Transactional Net Margin Method (TNMM) and Profit Split method (Dallosi, 2012). All the five methods are also recognized in Kenya's Income Tax Act of 2010 and allows a taxpayer to choose the most appropriate method to adopt depending on the specific transaction in question. Judgment is therefore exercised to determine the best method to use though some countries prescribe the hierarchy of preference for the methods allowed in the local legislation (Feinshreiber, 2004).

Tax liability is viewed as an obligation by a business to pay levies due to the state on account of past business transactions and revenue. Tax obligations are usually determined historically once the transactions have taken place and reported on an annual basis. While taxation based on income is a pretty straight forward matter, determination of tax liability for corporations is complicated by lack of universal concurrence on what constitutes taxable income (Jarczok-Guzy, 2017). This arises because these entities incur considerable costs in the normal course of business some of which are not tax deductible expenses. Also, the law provides for various exemptions, credits and reliefs that must be considered in determining tax liability. Another source of difficulty is the fact that it is not humanly possible to anticipate and provide for every unique tax situation that may arise in the tax law (Richardson, 2013). There continuously exists room for interpretational differences which in turn create room for differing administrative practices. Where differences of understanding occur between tax payer and tax administrator, disputes and contestations inevitably arise. Until recently, international taxation was assumed to be a non-issue and tax disputes resolved in line with different national jurisdictions (Mosteanu & Iacob, n.d.). That was until governments realized taxation's effect of redistributing income internationally through base erosion and profit shifting. The two key concepts at the heart of international taxation are residence and source (United Nations, 2016). The residency principle confers taxation rights to a country on income generated by entities regarded as residents for tax purposes regardless of where the income was made. This is unless the domestic tax laws specifically require otherwise. MNE's consequently face the risk of double taxation on the international income if considered resident in more than one jurisdiction.

While this study could have focused on any local industry with foreign ownership, the cement industry was found suitable based on the high level panel on illicit flows finding that most illicit flows from Africa occurred in the mining sector (Mbeki et al., 2011). In Kenya, cement manufacturing seems to be the most mature sector in the extractives industry with multiple multinational players and significant revenue base. Secondly, a good number of companies in the cement industry are listed at the Nairobi Securities Exchange meaning it is easier to access publicly available information on performance trends and figures for review. Thirdly, the sector is highly competitive leading to tight operating margins that could push players to use unconventional methods including abusive transfer pricing to preserve profitability. It is also notable that cement manufacturers in Kenya are more stable and established unlike peers in the region who do not produce enough for local consumption. There exists an export window to regional markets that have less stringent regulation than Kenya thereby creating an opportunity for profit shifting. The industry can be said to exhibit multi-nationality and tax haven

utilization that are key ingredients for transfer pricing aggressiveness (Taylor, Richardson, & Lanis, 2015)

### *Problem Statement*

One of the key emergent issues in taxation and international business is to satisfy national tax administrators that the performance declared by multinational enterprises has resulted in payment of its fair share of taxes locally (Kumar & Sosnoski, 2011). Globalization has led to internalization of a huge proportion of international business transactions (Matei & Pirvu, 2011) thereby increasing the need to demonstrate that transfer prices compare reasonably to market prices. This is especially considering that governments world over are under pressure to raise additional resources at a faster rate than before. This seems to have led to an antagonistic relationship between governments in pursuit of higher revenue and MNE's seeking to minimize costs including tax (Kumar & Sosnoski, 2011).

Existing literature shows that transfer pricing policies adopted by multinational entities affect tax base in the host countries through base erosion and profit shifting (Vragaleva, 2012). This theoretically points to a direct relationship between transfer pricing and tax liability. The purpose of this study is to establish whether there exists a significant relationship between thin capitalization, business models, tax haven utilization and intra-company payments on the tax liability of multinational enterprises operating in the cement industry in Kenya. As in many other emerging economies, Kenya Revenue Authority (KRA) has very limited capacity to probe, document and effectively enforce compliance to the arm's length principle of transfer pricing or negotiate favorable double taxation agreements with bilateral partners (Njiraini, 2014; Padhi & Bal, 2015).

Though there exists a large and growing body of literature on transfer pricing in general, there exists a gap around the practice and how it affects tax liability particularly in the cement production sector in Kenya. Secondly, most of the research done has been conducted in the developed countries with little attention focused on developing countries (Janský & Kokeš, 2015). It is with this in mind that this study intends to establish and attempt to measure the relationship between transfer pricing and tax liability in Kenya's cement industry.

### **Theoretical Review**

This study is guided by Analytical Models and Business Models

#### *Analytical Models in Transfer Pricing*

The Weichenrieder Alfons model is a correlation model developed in 2007 and attempts to measure effect of transfer pricing on profitability by tracking tax liability of a given entity against performance of related businesses (Matei & Pirvu, 2011). The model was employed to study MNE's operating subsidiaries in Germany with the finding that increasing tax rate in the parent country resulted in growth of profitability in the

subsidiaries. The study attributed this growth to the effect of transfer pricing by shifting profits from the high tax jurisdiction to lower tax jurisdictions

### Business Models

A business model can simply be defined as the way in which a business makes its money and comprises different factors working together (Baker, 2009). These factors include the market value proposition, business strategy, market segment, market position, cost structure and resource utilization among others. Restructuring of a business model comes into the picture when a MNE decides to centralize, reorganize and/ or relocate tasks and activities internationally (Webber, 2011). Baker (2009) correctly observes that reassigning roles to affiliated businesses and designating them as either manufacturers, distributors or service providers imposes automatic tax consequences. This is because the arm's length principle expects that transfer prices paid will be commensurate with functions performed, risks assumed and assets used.

### Empirical Review

Studies have so far established that capital structure of companies is tax sensitive (Overesch & Wamser, 2010). The above sought to explain tax planning behavior through intra-company finance and the degree of success achieved by deterrents such as thin capitalization rules employed by the German government. It was observed that a 10% tax differential between German and other countries was associated with a 1.9% increase in internal debt ratio. Similarly, when rules were introduced curbing thin capitalization in 2001, capital structures changed in response. The import of this is that businesses utilize internal borrowing for tax purposes but then governments have a considerable level of success on protecting tax base by restricting the same. The study estimates that Germany was able to earn an extra 260 million Euros in tax revenue as a result. Hsun (2012) in a study investigating the interaction between tax havens and thin capitalization for Australian firms established that strict enforcement of thin capitalization rules had a tendency of stifling investment and therefore economic growth. This however only held on the assumption that tax revenue was exclusively used for provision of public goods that improved utility and not production. Some jurisdictions interpret thin capitalization to mean excessive internal borrowing but do not penalize external borrowing. Research shows that where internal borrowing is severely restricted by statute, firms still obtain the desired tax advantage by converting internal debt to external (Wamser, 2014). This study was done in Germany where interest on external borrowing remains a tax deductible expense regardless of the capital structure thereof. Implication of this finding is that anti thin capitalization rules may not necessarily achieve desired effect if not well thought out.

Taylor, Richardson and Taplin (2015) in a research targeting 200 businesses in Australia sought to establish existence of a relationship, if any, between tax haven utilization and taxes paid. The study confirmed significant correlation between transfer pricing and tax haven utilization. It was also established that government effort to track funds transfers between Australian and tax haven affiliates yielded a net flow of funds from tax havens to Australia. This could mean that having an adequate legal framework that is enforced strictly results in increased compliance risk for MNE's forcing them to

minimize aggressive transfer pricing through tax havens. Sikka & Willmott, (2010) observed that the US Corporation, Enron, successfully employed complex corporation structures and multiple strategies to evade taxes in different jurisdictions worldwide. During the winding up inquiry, Enron was found to have formed 3,500 foreign subsidiaries and affiliates some of whom were registered in tax havens. Most of the income was thereafter channeled to the tax havens resulting in the firm's USD 1.785 billion profits recorded between 1996 and the year 2000 attracting no taxes at all. Revenue was redirected to tax havens through mispricing of services offered by the parent company. Lo, Wong and Firth (2010) in a study targeting Chinese companies based on year 2004 financial results sought to establish how conflicting corporate objectives including ownership affect transfer pricing. The major conclusion from the study was that government controlled firms manipulated transfer prices to shift profits. Intensity of the profit shifting aggressiveness was observed to have a linear relationship with the stake held by controlling shareholder. It was concluded that this could resonate with other developing economies for firms controlled by one shareholder whether government or otherwise.

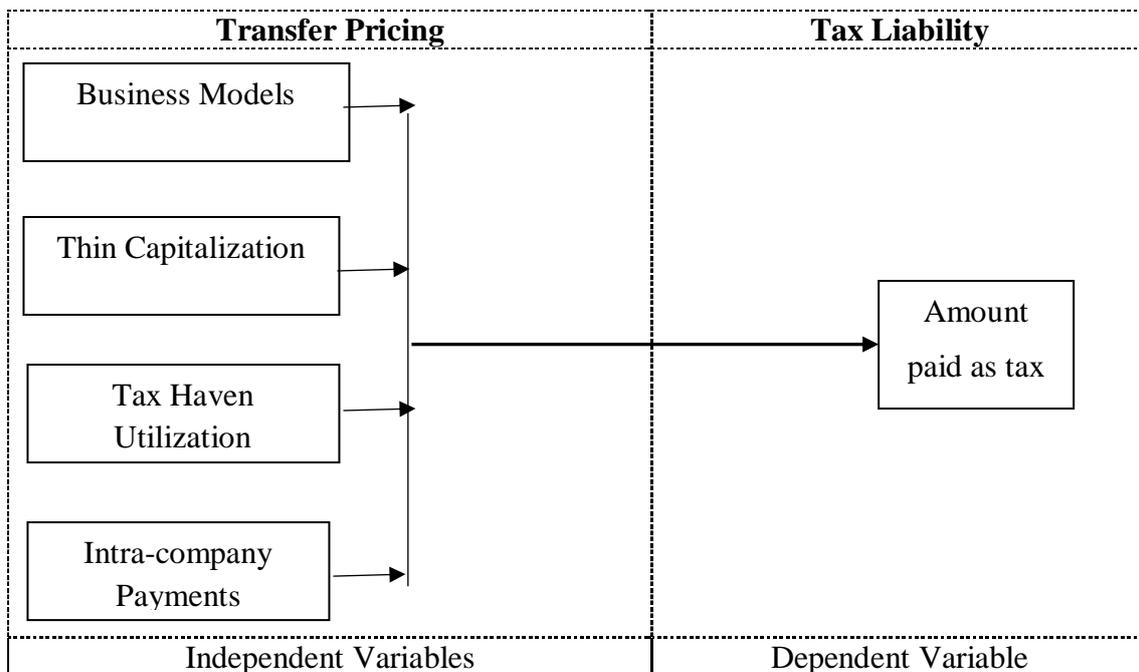


Figure 1. Formulation of Research Conceptual Framework

In a study aimed at establishing the relationship between profit shifting and tax haven utilization in the Czech Republic, Janský & Kokeš, (2015) found that companies with a tax haven link generally displayed a higher indebtedness than those without. This was interpreted as indicative of debt sharing among affiliate businesses for overall tax planning. The results were however not conclusive on how profits and taxes were affected. A study targeting 2,013 wholly owned firms in Korea sought to establish capital structure and tax characteristics unique to foreign subsidiaries, domestic subsidiaries and firms wholly owned by individuals (Kim & Lee, 2015). The study found that leverage ratio for foreign owned affiliates was not any different from domestic firms. Analyzed for

external versus internal leverage, foreign subsidiaries showed significantly higher internal debt compared to domestic subsidiaries. Significance for this findings was that internal debt had been employed by the MNE subsidiaries for its tax advantage. Janský and Prats, (2015) studied MNC's operating in India in an attempt to determine the role of tax havens in profit shifting. The main finding was that MNE's with a tax haven link reported 1.5% less profit, paid 17.4% less tax per unit asset, paid 30.3% less in tax per unit of profit and had 11.4% higher debt ratios than MNE's that had no tax haven connections.

## **Methodology**

### *Research design*

This study used longitudinal research design as the data collected was a combination of time series and cross sectional. Longitudinal research design is a research that makes use of data from more than one respondent over a span of time (Kothari, 2004). The specific approach employed was analysis of reported financial statements spanning a period of 10 years for the target sample. Longitudinal research helped to have measurements studied at different points in time for different companies to identify any relationship patterns existing and measure the strength of each such relationship. The above design was chosen because the data under study was collected from secondary sources showing actual historical performance and therefore not subject to manipulation. The design assisted the researcher determine the degree of relationship between the independent variables and the dependent variable

### *Research population and sampling*

In this study, all the six cement producing companies in Kenya constituted the population. The target population for research comprised all cement producers listed at the Nairobi Securities Exchange (NSE) namely Bamburi Cement Company, ARM Cement and East African Portland Cement Company. These were all considered accessible because they were by law required to publish their annual financial statements. This study used non-probabilistic purposive sampling. Purposive sampling employed the judgement of the researcher to choose from elements of the population without affording every element an equal chance of being selected. Purposive sampling for this study was based on availability of annual financial statements from the target population. Out of the population of six cement producers in the country, three were selected as the target population for this research. All the 3 are public companies listed on the stock exchange and consequently publish their annual financial statements. Jensen (2007) cited in Karani (2015) argues that for small populations, it is advisable to conduct a census study by collecting data from all the members of the sample size. All the 3 companies were therefore selected for study.

### *Data Collection and Processing*

The study relied on secondary data collection techniques. Published annual financial statements for the period between 2005 and 2014 from each company were downloaded from the Nairobi Securities Exchange online repository. Where gaps existed or the

information available online was considered inadequate, the information was sourced from the Capital Markets Authority library in hard copy form. A schedule was developed and used to pick out relevant data from the financial statements. It was completed by the researcher based on the secondary data from the target companies for the period from 2005 to 2014. It had 5 sections as follows: Section A had questions on general information from the target companies; section B contained questions on business model; section C asked questions on thin capitalization; section D had questions on tax haven utilization while section E asked about intracompany payments.

### Regression Analysis

The study employed a univariate regression analysis model that analyzed variance for each of the variables using the generic formula below:

$$Y = \beta_0 + \beta_1 X_1$$

Where:

Y represented tax paid;

$\beta_0$  represented the regression intercept with the value of Y when X was zero;

$\beta_1$  represented the regression coefficient; and

$X_1$  represented each of the 3 numerical independent variables i.e. thin capitalization, tax haven utilization and intracompany payments respectively.

### Correlation Analysis of Variables

To try and measure the degree of association between the different variables, a correlation analysis was done for the variables that had quantitative data. The study used a 95% confidence interval and a 0.05 level of significance. For the independent variables to have a significant influence on tax paid, the correlation value had to be less than 0.05, otherwise any association thereof would be deemed not to be significant.

### Thin Capitalization and Tax Paid

Thin capitalization was measured by proxy as the amount of money paid out to related companies in interest on borrowings. Findings are shown in the Table 1.

Table 1. Correlation between Related Party Interest Payments and Tax

		Total Tax Paid for the Year	How Much Interest was Paid Towards Internal Debt?
Total Tax Paid for the Year	Pearson Correlation	1	0.379*
	Sig. (2-tailed)		0.039
	N	30	30

The above table shows that where interest payments were made to related entities, there existed a significant relationship between those payments and tax paid given that the correlation coefficient was 0.379 with a p-value of 0.039. This means that a unit movement in interest payment resulted in a corresponding 0.379 movement in tax paid. From a transfer pricing perspective, this relationship would be expected to be negative if internal tax shield was used for tax planning purposes. It however is positive in this case and could mean that the association is only coincidental and the companies do not borrow internally for tax planning purposes.

#### *Tax Haven Utilization and Tax Paid*

Tax Haven utilization was measured by proxy using the amount of money channeled to tax havens. The correlation coefficient was found to be -0.234 with a p-value 0.214. This means that as much as there exists a relationship between the two parameters, this relationship is not significant as the p-value is greater than 0.05. The most probable explanation for this is that payments channeled through the tax haven are mostly dividends which are declared after payment of tax hence no effect on each other.

#### *Intracompany Payments and Tax Paid*

Intracompany payments were measured as the value of purchases made from related parties' year on year. The correlation coefficient was found to be 0.729 with a p-value of 0.000 meaning a significant positive relationship existed between value of intragroup purchases and tax paid. Theoretically, an inverse relationship would have been expected if there existed a tax planning motive behind the purchases done within the group. In this case however, the association could only be coincidental. This would seem to be validated by the cross ownership in the sector where LafargeHolcim group is the parent MNE with shareholding in ARM Cement, Bamburi Cement and EAPCC making them all related. The trade that occurs with related parties is in actual sense the three companies purchasing clinker and other raw materials from each other and since they all trade in the same jurisdiction, there is no obvious tax planning impact of this trade. The association would therefore be attributed to normal business growth and economic trends where higher purchases are associated with higher profitability and consequently higher tax payments.

### **Regression Analysis**

#### *Thin Capitalization and Tax Paid*

A univariate linear regression analysis was used to assess the weight of the relationship between thin capitalization and taxes paid. The regression model employed was;

$$Y = \beta_0 + \beta_1 X_1$$

Where Y was tax paid, X<sub>1</sub> was thin capitalization,  $\beta_1$  was the regression coefficient and  $\beta_0$  was the regression intercept with the value of Y when X is zero.

The findings were as summarized in the Table 2.

Table 2. Thin Capitalization and Tax Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.379a	0.143	0.113	838584011.306

From the above summary, thin capitalization would have accounted for 14.3% of the movements in tax paid as represented by the R square if this was used for tax planning purposes. For this study, it only tells us that thin capitalization has a 14.3% association with tax paid leaving the balance of 85.7% of taxes dependent on other factors. Understood together with the finding on correlation analysis, this association would seem to be only coincidental and not as a result of use of thin capitalization for tax planning purposes.

Table 3. Thin Capitalization and Tax Paid ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3293836561363770000	1	3293836561363770000	4.684	0.039b
Residual	19690248032498200000	28	703223144017794000		
Total	22984084593862000000	29			

According to Table 3., the ANOVA analysis shows a calculated F of 4.684 meaning that the model has overall significance in predicting the relationship between the two variables. The p-value was 0.039 which was less than 0.05 indicating that the model used was statistically significant in predicting the association between thin capitalization and tax paid in Kenya's cement industry.

The regression equation for the relationship between thin capitalization and tax paid was;

$$\text{Tax Paid} = 677,541,879.93 + 5.836X_1$$

The regression thus establishes existence of a significant relationship between thin capitalization and tax paid. A unit movement in interest paid on internal borrowings was associated with 5.836 movement in taxes paid. When assessed together with the direction of the relationship in the correlation analysis, the relationship would appear only coincidental and not proof of use of thin capitalization for tax planning purposes.

#### Tax Haven Utilization and Tax Paid

A univariate linear regression analysis was used to assess the weight of the relationship between tax haven utilization and taxes paid. The regression model employed was;

$$Y = \beta_0 + \beta_1X_1$$

Where Y was tax paid, X1 was tax haven utilization,  $\beta_1$  was the regression coefficient and  $\beta_0$  was the regression intercept with the value of Y when X is zero.

The findings were as summarized in the table below:

Table 4. Tax Haven Utilization and Tax Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.234a	.055	.021	880941747.932

From the Table 4., tax haven utilization would have accounted for 5.5% of the movements in tax paid as represented by the R square if this was used for tax planning purposes. For this study, only dividend payment was channeled through tax havens meaning there was no effect on tax. The degree of association is reasonable as it shows only 5.5% variation between tax paid and tax haven utilization. 94.5% of taxes paid were dependent on factors other than tax haven utilization. Since the firms domiciled in tax havens are shareholders, it follows that the higher the profitability the higher the dividends paid. The association therefore does not establish use of tax havens for tax planning purposes but rather the linear relationship between profit and dividends.

Table 5. Tax Haven Utilization and Tax paid ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1254450422886720000	1	1254450422886720000	1.616	0.214b
	Residual	21729634170975300000	28	776058363249117000		
	Total	22984084593862000000	29			

The ANOVA analysis shows a calculated F of 1.616 meaning that the model has weak overall significance in predicting the relationship between the two variables. The p-value was 0.214 which was way higher than 0.05 indicating that the model used was not statistically significant in predicting the association between tax haven utilization and tax paid in Kenya's cement industry.

The regression equation for the relationship between thin capitalization and tax paid was;

$$\text{Tax Paid} = 858,727,154.30 - 9.85X_1$$

The regression thus establishes existence of a relationship between tax haven utilization and tax paid. A unit movement in payments channeled through tax havens was associated with -9.85 movement in taxes paid. However, the p-value of 0.214 means any such relationship was not significant.

*Intracompany Payments and Tax paid*

A univariate linear regression analysis was used to assess the weight of the relationship between intracompany payments and taxes paid. The regression model employed was;

$$Y = \beta_0 + \beta_1 X_1$$

Where Y was tax paid, X<sub>1</sub> was intracompany payments, β<sub>1</sub> was the regression coefficient and β<sub>0</sub> was the regression intercept with the value of Y when X is zero.

The findings were as summarized in the Table 6.

Table 6. Intracompany Payments and Tax Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.729a	0.532	0.515	619943737.696

From the above summary, intracompany payments account for 53.2% of the movements in tax paid as represented by the R square. The degree of association is significant as it shows 53.2% variation between tax paid and intracompany payments. 46.8% of taxes paid were dependent on factors other than intracompany payments. This means that of all the factors analyzed, intracompany payments had the greatest association with taxes paid and potentially the greatest impact on tax liability if used for tax planning purposes.

Table 7. Intracompany Payments and Tax ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12222837932435000000	1	12222837932435000000	31.803	0.000b
	Residual	10761246661427000000	28	384330237908107000		
	Total	22984084593862000000	29			

The ANOVA analysis in Table 7. shows a calculated F of 31.803 meaning that the model was significant in predicting the relationship between the two variables. The p-value of 0.000 was less than 0.05 indicating that the model used was statistically significant in predicting the association between intracompany payments and tax paid in Kenya's cement industry.

The regression equation for the relationship between intracompany payments and tax paid was;

$$\text{Tax Paid} = 375,301,485.11 + 0.465X_1$$

The regression thus establishes existence of a relationship between intracompany payments and tax paid. A unit movement in intracompany payments was associated with 0.465 movement in taxes paid. The p-value of 0.000 means the relationship was significant. This relationship however would seem to be only coincidental as it negates

the very essence of using intracompany payments for tax planning purposes in the sense that the theoretical relationship is inversely linear while the finding here is for direct proportion.

## **Conclusions**

The study sought to determine the relationship between each of the company's business model and tax paid in Kenya's cement industry. It was established that business models in use had no bearing on the tax paid.

It also sought to assess the relationship between thin capitalization and tax liability with the finding that debt existing within the capital structure had no effect on tax paid. While significant correlation was established between the two variables, it was not enough to conclude existence of a cause and effect relationship between the two. This is because the relationship found was the opposite of what would have been expected from a transfer pricing point of view. Key finding was that while key shareholders operated from a known tax haven, there was no influence on the tax paid. This is due to the fact that the only payments directed to the tax haven entity was dividends which comes after tax liability has been assessed and possibly paid. The value of intracompany payments was evaluated against tax liability in order to gauge any existing relationship. It was found that while the two variables were correlated, the relationship did not confirm any effect of the payments made to related entities on tax liability. As found in the other variables discussed, the direct linear relationship exhibited was at variance with the theoretical expectation that where higher payments were made to related entities, tax paid would tend to be lower. Therefore, any association found could only be coincidental

## **Recommendations**

The Kenya Revenue Authority need not spend resources auditing transfer pricing abuse for tax purposes in the cement industry along the variables studied. It is unlikely that significant additional taxes would be generated that way. Instead the authority should focus on other forms of transfer pricing likely to yield better results. The government should continually improve the country's business environment to ensure that MNE's operating locally have no incentive to shift core production functions and operations to other tax jurisdictions. This will help promote economic stability while making tax administration easier by eliminating need for tedious and costly transfer pricing tax audits. Kenya's government in general and the tax man specifically should remain vigilant to asses for emerging transfer pricing practices for tax planning. This should then lead to more effective laws and better informed tax assessors and higher voluntary compliance on the part of tax payers.

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