Tax Planning and Firm Value: An Empirical Analysis of Consumer Goods Manufacturing Companies in Cyprus

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Abstract

The study identifies the impact of tax planning on the firm value of consumer goods manufacturing companies in Cyprus. The specific objectives are to determine the impact of firm and leverage on firm value of Cypriot consumer goods manufacturing companies. The data included in the study were collected from the annual reports and accounts of consumer goods of the manufacturing companies in Cyprus and formulated hypotheses were tested with multiple regression analysis. The result had a positive effect on our leverage dependent variable. Based on the findings of the study, the application of the study with more samples may be recommended for future studies.

Keywords: Tax Planning, Firm Size, Leverage And Firm Value

Introduction

Tax planning has been a vital weapon to alleviate the effect of tax on liquidity and profitability of firms. Effective Tax Rate (ETR) measures the firm’s tax burden and can also look through the performance of a firm. Increase in the profitability level of a firm will signals investors that the firm value is good and will attract more investors to invest. This is because the investors might know the firm has higher profitability by paying lower tax rate and able to provide higher return for their shareholders. Tax planning represents a firm’s conscious efforts geared towards reducing its tax liabilities, using means or strategies which could either be legal or illegal (Brian-Lee, Dobiyanski & Minton, 2015). This definition captures the very slim boundary between legal and illegal acts, which are not clear and explicit. Therefore, the legality of a firm’s tax reduction decision or strategy is determined by the authoritative bodies after the fact, that is, the tax authority relying on the Judiciary. Thus, there is no clear ex ante distinction between legal tax avoidance and illegal tax evasion.

Tax planning practices among firms are carried out by corporate managers. Managers, who are agents of Shareholders, ought to act in the interest of the principals (Jensen & Meckling, 1976). The burden of the tax paid by the company is eventually borne by shareholders since it brings about a reduction in the profit which is the basis for dividend payment (Amiram, Bauer, & Frank, 2013). The interest of shareholders in a company is measured in terms of the market value of their shareholdings, which is a reflection of their stake in that company (Ilaboya, Izevbekhai, Ohiokha, 2016). The aftermaths of management actions are usually reflected in the Stock returns which is the value gained or lost (whether realized or unrealized) on an investment in stock. The impulsive nature of stock returns in most sub-Saharan Africa countries calls for concerns and researches (Ogege, 2016).

With the separation of ownership from management, tax planning actions could become possible opportunities for managers to pursue self-interests (Desai & Dharmapala 2006). Would the effect of agency costs be significant enough to become disadvantageous to shareholders? Under the agency framework, relevant efforts must be made to mitigate such effect of managerial diversion. Following Desai and Dharmapala (2009) submission that the benefits of tax avoidance activities in saving tax charges are possibly offset by the potential managerial rent extraction for firms with poor governance structure, the benefits and the net effect of corporate tax avoidance are likely to be greater for firms with measures in place to mitigate...
agency cost. Complex tax planning practices can provide management with the tools, masks, and justifications for opportunistic managerial behaviors, such as earnings manipulations, related party transactions, and other resource-diverting activities. Thus, tax savings from tax planning may not eventually bring about an increase in firm value. Firm value is generally taken to mean an economic measure reflecting the market value of a whole business. It is a summation of the claims of all contributors to the assets of a firm namely: creditors (secured and unsecured) and equity holders. In finance literature, firm value is the sum of the market value of equity and the market value of debt (Nwaaobia, Kwarbai and Ajibade, 2015). Firm value is enhanced when shareholders’ wealth is increased through profits and improved cash flow; hence the importance of tax planning as an integral part of the financial planning programme of any entity.

The study by Desai and Dharmapala (2007) examined the link between tax planning, corporate governance and firm performance. In their study, Firms’ performance is measured using Tobin’s q and governance quality is proxied by the level of institutional ownership. Tax planning is measured by inferring the difference between the income reported to capital markets and tax authorities (the book-tax-gap). Results of analyses revealed that the average effect of tax planning on corporate performance is not significantly different from zero. In other words, there is no relationship between tax planning and firm performance. The study however reports a positive association between tax planning savings and performance for well-governed firms. The study concluded that corporate governance mediates the tax planning-firm performance relationship. Corporate tax avoidance could be detrimental to firm value when the manager-shareholder goals are not aligned due to agency problem of lack of goal congruence (Desai & Dharmapala, 2006). This suggests the likely effects of agency problem on the nexus which prompts us to examine the moderating effects of corporate governance monitoring and goal congruence (all are managerial entrenchment mechanisms for mitigating agency costs associated with the separation of ownership from control) on the effect of corporate tax avoidance practices on the firm value of non-financial quoted firms in Cyprus.

Tax planning in the study was measured by firm’s tax saving. At times, certain firms are not good in making tax planning. Therefore, the management of the firm will then employ tax experts in handling the tax planning for that firm. This will increase the firm’s cost because they need to pay them more than ordinary employee’s salary. There is therefore need to verify the tax planning firm value nexus using firms quoted in the Cyprus stock exchange, and possible medium for improving the impact for shareholders’ benefit.

The study determines the effect of Tax Planning on firm value of consumer goods manufacturing companies in Cyprus. The specific objectives are to:

1. Determine the effect of firm size on firm value of Cyprus consumer goods manufacturing companies.
2. Examine the effect of leverage on firm value of Cyprus consumer goods manufacturing companies.

Review of Related Literature

Conceptual Framework

Tax Planning

In my study ‘Tax planning and firm value: evidence from European companies’ using Regression analysis model (Generalized Least Squares (GLS) regression). Tobin's q model was adopted by the study to examine the relationship between firms’ value and tax planning with firm size, leverage, capital intensity, Dividend and Earnings management.

As control variables, the study found that tax planning can be considered as steps taken by taxpayers so as to reduce tax liability in obtaining the tax saving benefits. The correlation analysis reveals that the correlation coefficients between various independent and control variables are significant.
Tax planning represents a firm’s conscious efforts directed at reducing its tax liabilities by adopting approaches which could either be legal or illegal (Brian-Lee, Dobiyanski & Minton, 2015). The legality of a firm’s tax reduction decision or strategy is determined by the judicial interpretation of the relevant tax code as there is no clear ex ante distinction between the legal tax avoidance and the illegal tax evasion. A firm’s tax avoidance strategy can be placed anywhere on the continuum depending upon the degree of aggressiveness the firm pursues in the course of reducing its tax liabilities (Hanlon & Heitzman, 2010).

This weakness of not accurately capturing non-conforming tax planning prompted Dyreng, Hanlon and Maydew (2008) to introduce an alternative tax planning measure, the cash Effective Tax Rate. It is the ratio of cash tax paid to adjusted pretax income, where both the numerator and denominator are summed over a multi-year time period, usually three to five years, to ensure a smooth transition shock to cash tax paid as well as pre-tax income. Significantly, tax such as changes to tax reserve or the valuation allowance does not affect cash tax paid (Badertscher, Katz, Rego & Wilson, 2015).

Other book tax difference measures used in measuring non-conforming tax avoidance include the total book tax difference, calculated as the difference between pretax income and estimated taxable income (Mills, 1998; Desai, 2003). The permanent book tax difference is another measure which is believed to capture tax planning strategies (Weisbach, 2002; Macgill & Outslay, 2004). Researchers have also used the discretionary permanent book tax difference, which excludes permanent difference over which management has little control (Frank, Lynch, Rego, 2009). Badertscher, Katz, Rego and Wilson (2015) gave obvious reasons why researchers mainly focus on corporate tax avoidance measures that captures non-conforming tax strategies only. First, public limited companies usually prefer non-conforming tax strategies in reducing taxable income without reducing book income. The second reason is the lack of a generally accepted measure of conforming tax planning in the accounting literature.

The decision to enter into an aggressive tax planning scheme involves balancing the costs and benefits involved. The main benefits of corporate tax aggressiveness are increased cash and liquidity, increased after-tax profits represented in a firm’s performance metrics such as earnings per share, a reduced tax liability, a reduced effective tax rate that can send a positive signal to investors, thereby reducing the cost of equity capital (Hanlon & Slemrod, 2009).

Value of Firm

Modigliani and Miller (1961) opined that firm value is determined by company’s asset earnings power. It implies therefore that, when the impact of asset earnings power is positive, the company is doing well, and its asset turnover will be more efficient, and this results in high profit. Firm value may be measured from two perspectives: from the point of view of accounting measure of profitability: return on assets (ROA), return on equity (ROE), Tobin’s Q, net profit margin; and from the stock market perspective, using the share prices from the Stock Exchange market.

Firm value Scholars have widely employed Tobins Q as a proxy for firm value, particularly in valuing publicly traded companies (Nwaobia, Kwarbai & Ajibade, 2015; Tahir and Razali, 2011; Smithson & Simkins 2005). This study used approximate Tobin’s Q as introduced by Pruitt (1994) and used in Nwaobia, Kwarbai & Ajibade, (2015). It is calculated thus: Approximate Tobins Q = MVE+PS+DEBT/TA

Where: MVE: market value of equity PS: The liquidating value of the firm's outstanding preferred stock DEBT: The value of firms’ short term liabilities net of its short term asset, PLUS the book value of the firm's long term debt TA: The book value of the total assets of the firm Price Book Value (PBV) is ratio showing whether stock price is above or below book value price of the shares. The higher this ratio is, the higher market trust towards prospect of the company is. Dividend Yield Ratio is ratio that shows the current rate of income earned from stock Investments Dividend Payout Ratio (DPR) is ratio that shows the amount of profit paid to shareholders in the form of dividends.
Company value in this study will be measured by (PBV) to show the company's ability to create a relative value of capital. Price book value (PBV) is a ratio that indicates whether the stock price (market price) is traded above or below the book value of the shares (Brigham, 2012). The ratio of stock price to the book value of the company or PBV shows the level of ability of the company creates a value relative to the amount of capital invested. Harmono (2009) explains that high PBV reflects the high stock price compared to the book value of the stock. The higher the stock price, the more successful the company creates value for shareholders. The success of the company creates that value of course gives hope to shareholders in the form of bigger profit. Simply stated that price book value (PBV) is the market ratio used to measure the performance of the stock market price against the value of the book. The higher the PBV means the market believes in the prospect of the company. The researchers use PBV as a measure of the company value with the following reasons:

**Leverage**

Leverage is the result of using borrowed capital as a source of funding when investing to expand the firm’s asset base and generate returns on risk capital. Leverage is an investment strategy of using borrowed money: specifically, the use of various financial instruments or borrowed capital to increase the potential return of an investment. Leverage can also refer to the amount of debt used to finance assets. When one refers to something (a company, a property or an investment) as “highly leveraged,” it means that, the item has more debt than equity (Towery (2012).

In finance, leverage (sometimes referred to, as gearing in the United Kingdom and Australia) is any technique involving the use of borrowed funds in the purchase of an asset, with the expectation that the after tax income from the asset and asset price appreciation will exceed the borrowing cost. Leveraging enables gains and losses to be multiplied. On the other hand, there is a risk that leveraging will result in a loss — i.e., when actually it turns out that financing costs exceed the income from the asset, or because the value of the asset has fallen.

While leverage magnifies profits when the returns from the asset is more to offset the costs of borrowing, leverage may also magnify losses. A corporation that borrows too much money might face bankruptcy or default during a business downturn, while a less-leveraged corporation might survive. An investor who buys a stock on 50% margin will lose 40% if the stock declines 20 % (Leory & Babra 2008).

Risk may be attributed to a loss in value of collateral assets. Brokers may require the addition of funds when the value of securities holds declines. Banks may fail to renew mortgages when the value of real estate declines below the debt's principal. Even if cash flows and profits are sufficient to maintain the ongoing borrowing costs, loans may be called. This may happen exactly when there is little market liquidity and sales by others at depressing prices. It means that as things get bad, leverage goes up, multiplying losses as things continue to go down. This can lead to rapid ruin, even if the underlying asset value decline is mild or temporary. Leory and Babra (2008) noted that the risk can be mitigated by negotiating the terms of leverage, by maintaining unused room for additional borrowing, and by leveraging only liquid assets Heitzman,( 2010).

**Size of Firm**

Corporate tax planning is a professional activity that demands the requisite resources and skills for its effective execution. It follows therefore that Firm size and capacity in terms of resources available to the firm is believed to directly correlate with the extent of a firm's tax planning activities (Nwaobia, 2014). To design and execute a robust tax planning scheme requires the employment of tax experts to man the tax department. Where the company decides to outsource, enormous outflow of resources goes with the payment of the attendant professional fees. Based on this reality, Md Noor, Fadzillah and Mastuki (2010) submit that not all companies have the same opportunities to carry out tax planning. It is therefore imperative to control for the effect of the size of the firm on tax planning studies. Khaoula, Amor & Ayed (2013) and Rego (2003)
observe that larger firms can achieve economies of scale via tax planning and have the resources and incentives to decrease group tax. Large firms are reported to have sufficient resources and better opportunities to undertake tax planning strategies, for example, by utilizing the tax incentives provided to them.

**Review of Empirical Studies**

Previous studies have investigated the relationship between book-tax differences and earnings growth. However, these studies provide mix results pertaining to the relationship between these two constructs. For instance, Lev and Nissim (2004) examine the relationship between temporary book-tax differences and earnings growth. In this perspective, the authors find that temporary book-tax differences and earnings growth are not related.

Hanlon (2005) examined the relationship involving temporary book-tax differences and earnings growth, and finds a negative relationship between book-tax differences and earnings growth. In other words, firms with large temporary book-tax differences exhibit less earnings persistence. Dhalwale Gleason, and Mills (2004) investigated whether income tax expense is regularly used to achieve earnings targets and concluded that aggressive tax expense provides a final opportunity to meet earnings targets after the firm has agreed to any pre-tax adjusting entries required by the independent auditors. The study by Desai and Dharmapala (2007) examined the link between tax planning, corporate governance and firm performance. In their study, Firms' performance is measured using Tobin's q and governance quality is proxied by the level of institutional ownership. The study reported that the average effect of tax planning on corporate performance is not significantly different from zero. In other words, there is no relationship between tax planning and firm performance. The study however reports a positive association between tax planning savings and performance for well-governed firms. The study noted that as tax planning activities increase, the tax costs and risks outweigh the benefits.

The study of Desai and Dharmapala (2009) ascertained the relationship between tax planning, corporate governance and firm's performance. In their study, they used Tobin's Q, governance quality and book tax gap as their proxy. However, there is a positive relationship between tax planning savings and value of well-governed firms. So, in the end they conclude it as corporate governance is needed to assist the performance of firm that adopts tax planning. Guenther, Matsunaga and Williams (2013) distinguish between the concepts of tax avoidance, tax aggressiveness, and tax risk and examine which, if any, of those concepts is related to overall firm risk. Prior research has argued that aggressive corporate tax avoidance, as measured by low cash effective tax rates or high reserves for unrecognized tax benefits, increases firm risk, thereby requiring firms to provide risk-taking incentives to managers.

Antonio and Giliard (2014) investigates whether family firms are more aggressive in terms of tax planning than non-family firms in Brazil, based on a sample of firms listed on the BMF and Bovespa from 2001 to 2012. Of the sample of companies, 23% are considered to be family firms. They found a significant relationship between classification as a family firm and tax aggressiveness, based on two metrics. The family firms in the sample were more tax aggressive than the non-family firms. For the variable BTD, family firms presented a positive sign, indicating a tendency for higher BTD. In turn, ETR had a negative sign, identifying a tendency for family firms to pay lower taxes.

Ohnuma (2014) analyzed corporate tax avoidance as a determinant of executive compensation based on equity risk incentives using correlation and a multivariate regression analyses. He finds a negative association between tax aggressiveness and the adoption of stock options. Also he reports a significant relationship existing between equity risk incentives and tax aggressiveness.
Saidu, and Ibrahim (2015) assess the effect of corporate taxation on dividend policy of listed consumer goods companies in Cyprus over the periods 2009 to 2013. Data for the study was collected from the annual reports and accounts of the companies. A panel data methodology was employed specifically using pooled OLS, fixed effect and random effect regression methods in analyzing the data. The paper demonstrated that corporate taxation and board structure have no effect on dividend policy of firms. The results also imply that performance of companies is an important determinant of dividend policy. Galica (2015) determined the complexities of corporate tax planning, with a focus on tax deferral strategies employed by United States multinational corporations, providing a financial and ethical analysis of corporate tax entities. The focus will be on multinational corporations, primarily Fortune five hundred companies.

The study reported that foundational background on corporate tax havens, the benefits of deferred taxation, and an outsider’s perspective on the subject matter – namely, the difference in perception of the general public versus that of a shareholder. Antônio and Tatiana (2015) provided evidence regarding the relationship between book-tax differences (BTD), persistence of earnings and accruals and tax planning in the Brazilian scenario.

The sample corresponds to all industrial and commercial firms listed on the BMF&Bovespa that disclosed consolidated financial statements between 2003 and 2012, obtained from the Economática database. The sample period was chosen to straddle the year when the use of International Financial Reporting Standards (IFRS) became mandatory in Brazil (2009). The study found that there is impacts of temporary large positive BTDs on the persistence of earnings through aggressive tax planning, before and after adoption of international financial reporting standards in Brazil.

Maria, Ina and Katharina (2016) conducted a meta-analysis aimed at identifying the sources of heterogeneity in primary studies and at providing a consensus estimate with respect to the sign and the statistical significance level for the examined association. Their meta-regression results show that BTD are indeed indicative of opportunistic reporting behavior, and even more so of EM. These results are, however, weaker for studies that determine BTD only roughly as the difference between book and estimated taxable income instead of using more specific BTD proxies. Moreover, examining actual BTD computed from tax returns instead of only approximating these from financial statements strongly increases the effects. Hence, efforts taken to accurately determine BTD seem to be worth while when it comes to the explanatory power for opportunistic reporting.

Salawu, Ogundipe and Yeye (2017) examined the causal relationship between corporate tax planning and firm value of non-financial quoted companies in same country between 2004 and 2014. A panel data of financial characteristic of 50 non-financial quoted firms spreading over ten sectors were collected from the audited annual financial reports of the sampled firms and the Nigeria Stock Exchange fact books. The result indicates that causality do not runs in any direction between Tax Planning (ETR) to Firm Value (Tobin Q).

Sathaya and Thatphong (2019) examined the association of tax planning (hereafter called TP) on financial performance (hereafter called FP) in the Stock Exchange of Thailand during the year 2014-2016. The sample size, which excludes the financial sector, consists of 873 firm-years. The TP is measured by effective tax rate (hereafter called ETR) and the ratio of tax expenses to total assets (hereafter called TAX/ASSET), while the FP is measured by return on equity.

This paper found that the TP has both effects on the FP. The effect is positive when measured by ETR, while it is negative if measurement is TAX/ASSET. Regarding to control variables, the BIG4 auditors have positive effects on the FP. The results further indicate that the relationship between the FP and TP (measured by TAX/ASSET) is significantly negative for non-BIG4 auditors. It is evident from the review of related literature, that researches on tax planning and firm value have received too little attention in developing countries. This neglect is even more in Cyprus.
This study provides insight to ensuring that benefits from tax planning practices are targeted at improving shareholders value.

Methodology

Research Design

This study adopted an *ex post-facto* research design within a panel data framework. It is a combination of both time series and cross sectional properties. This is appropriate because the study aims at measuring the effect between one variable and another, in which the variables involved are not manipulated by the researcher.

Population and Sample of the Study

The population of the study comprised quoted consumer goods manufacturing firms on the Cyprus Stock Exchange (CSE) as at end of 2018 financial year. The population included firms. This quoted consumer goods manufacturing firms are twenty one (21).

Method of Data Analyses

Being a panel data study, the study involve a series of analyses like the descriptive statistics, Breusch-Godfrey Serial Correlation test, Multi-collinearity test, test for the fixed effect and the random effect as well as the Hausman specification test. However multiple regression analysis was used in testing the formulated hypotheses using E-View 9.0 statistical software.

Model Specification

In testing for the value relevance of corporate tax avoidance and in testing for the moderating effect of agency cost mitigating variables on the nexus, we adapt a firm-value model originally derived from Ohlson (1995). Their model centered on Tax Planning, is given as:

\[
FMV = \beta_0 + \beta_1 BVEit + \beta_2 CTAit-1 + \beta_3 COGit + \beta_4 PFTit + \beta_5 CAPINTit + \beta_6 LEVit + \beta_7 EXGit + \beta_8 CTAit-1 \times COGit + \beta_8 MVEit \times DIV + AGE + \epsilon it
\]

The model was modifies thus:

\[
TOBINS Q_{it} = \beta_0 + \beta_1 FRMSIZ_{it} + \beta_2 LEV_{it} + \mu_{it} - \text{Ho}_3
\]

\[
TOBINS Q_{it} = \beta_0 + \beta_1 LEV_{it} + \beta_2 LEV_{it} + \mu_{it} - \text{Ho}_4
\]

Where:

TOBINS Q = proxied for Firm Value

SIZE is Firm size

LEV is leverage

Tobins Q

E is error term.
Data Presentation And Analysis

Data analysis

Table 1: Descriptive statistics of the sampled companies

<table>
<thead>
<tr>
<th></th>
<th>TOBINS</th>
<th>FRMSIZ</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>9.003000</td>
<td>1985414.</td>
<td>0.675000</td>
</tr>
<tr>
<td>Median</td>
<td>8.845000</td>
<td>1978403.</td>
<td>0.595000</td>
</tr>
<tr>
<td>Maximum</td>
<td>10.450000</td>
<td>3531654.</td>
<td>1.210000</td>
</tr>
<tr>
<td>Minimum</td>
<td>7.250000</td>
<td>700992.0</td>
<td>0.160000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.982073</td>
<td>997311.0</td>
<td>0.349770</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.027449</td>
<td>0.103440</td>
<td>0.245419</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.342903</td>
<td>1.666202</td>
<td>1.810452</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>0.181163</td>
<td>0.759090</td>
<td>0.689978</td>
</tr>
<tr>
<td>Probability</td>
<td>0.913400</td>
<td>0.684173</td>
<td>0.708228</td>
</tr>
<tr>
<td>Sum</td>
<td>90.03000</td>
<td>19854135</td>
<td>6.750000</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>8.680210</td>
<td>8.95E+12</td>
<td>1.101050</td>
</tr>
<tr>
<td>Observations</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: By Dr. Esra SIPAHI computation (2019)

Table 1 shows the mean (average) for each of the variables, their maximum values, minimum values, standard deviation and Jarque-Bera (JB) Statistics (normality test). The results in Table 1 provided some insight into the nature of the selected Cyprus quoted consumer goods companies that were used in this study. Firstly, it was observed that on the average over the ten (10) years periods (2009-2018), the sampled quoted consumer goods companies in Cyprus were characterized by positive Firm value (TOBINS’Q = 9.003000). Lastly, in Table 1, the Jarque-Bera (JB) which test for normality or the existence of outliers or extreme values among the variables, shows that most of the variables are normally distributed at 5% level of significance. This means that any variables with outlier are not likely to distort our conclusion and are therefore reliable for drawing generalization. This also implies that the least square estimate can be used to estimate the pooled regression model.

Correlation Analysis

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix)

Table 2: Correlation Analysis Matrix

<table>
<thead>
<tr>
<th></th>
<th>TOBINS</th>
<th>FRMSIZ</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOBINS</td>
<td>1</td>
<td>0.83478652665</td>
<td>0.20428623420</td>
</tr>
<tr>
<td>FRMSIZ</td>
<td>0.83478652665</td>
<td>1</td>
<td>0.00033926979</td>
</tr>
<tr>
<td>LEV</td>
<td>0.20428623420</td>
<td>0.00033926979</td>
<td>1</td>
</tr>
</tbody>
</table>
The use of correlation matrix in most regression analysis is to check for multi-collinearity and to explore the association between each explanatory variable (FRMSIZ and LEV) and the dependent variable (Firm Value) proxy as TOBINS Q. Table 2 focused on the correlation between Firm Value measured as Tobins Q and the independent variables (FRMSIZ and LEV). Finding from the correlation matrix table shows that all our independent variables, (FRMSIZ =0.83 and LEV= 0.20) were observed to be positively associated with Firm Value. In checking for multi-collinearity, we noticed that no two explanatory variables were perfectly correlated. This means that there is no problem of multi-collinearity between the explanatory variables. Multi-collinearity may result to wrong signs or implausible magnitudes in the estimated model coefficients, and the bias of the standard errors of the coefficients.

**Testing of Hypotheses formulated**

In order to examine the impact relationships between the dependent variable TOBINS Q and the independent variables (FRMSIZ and LEV) and to also test our formulated hypotheses, we used a pooled multiple regression analysis since the data had both time series (2009-2018) and cross sectional properties (21 consumer goods quoted companies). The pooled interaction based multiple regression results are presented and discussed in Table 3 below.

**Table 3: TOBINS Q Pooled Regression Results**

Dependent Variable: TOBINS

Method: Least Squares

Date: 11/15/19  Time: 08:38

Sample: 2009 2018

Included observations: 10

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>8.950282</td>
<td>0.890992</td>
<td>10.04530</td>
<td>0.0002</td>
</tr>
<tr>
<td>FRMSIZ</td>
<td>1.32E-07</td>
<td>3.18E-07</td>
<td>0.416042</td>
<td>0.6946</td>
</tr>
<tr>
<td>LEV</td>
<td>0.948093</td>
<td>0.606771</td>
<td>1.562523</td>
<td>0.1789</td>
</tr>
</tbody>
</table>

R-squared 0.885524  Mean dependent var 9.003000
Adjusted R-squared 0.793944  S.D. dependent var 0.982073
S.E. of regression 0.445796  Akaike info criterion 1.528944
Sum squared resid 0.993672  Schwarz criterion 1.680237
Log likelihood -2.644721  Hannan-Quinn criter. 1.362977
F-statistic 9.669356  Durbin-Watson stat 2.350885
Prob(F-statistic) 0.014250
In Table 3, R-squared and adjusted Squared values were (0.88) and (0.79) respectively. The indicates that all the independent variables jointly explain about 88% of the systematic variations in Firm Value (TOBINS Q) of our samples companies over the ten years periods (2009-2018). The F-statistics (9.67) and its P-value (0.01) show that the firm value regression model is well specified.

Test of Autocorrelation: using Durbin-Waston (DW) statistics which we obtained from our regression result in table 4.3, it is observed that DW statistics is 1.86 and an Akika Info Criterion and Schwarz Criterion which are 1.52 and 1.68 respectively also further confirms that our model is well specified. In addition to the above, the specific findings from each explanatory variable are provided as follows:

Hypothesis One

H03: Firm size has no significant effect on affect firm value of Cyprus consumer goods manufacturing companies.

Firm Size (FRMSIZ), based on the t-value of 0.42 and p-value of 0.70 was found to have a positive influence on our sampled quoted company's firm value and this influence is not statistically significant at 5% level since its p-value is higher than 0.05 values. This result therefore suggests that we should reject our alternative hypothesis three (Ho3) which states that Firm size has no significant effect on affect firm value of Cyprus consumer goods manufacturing companies.

Hypothesis Two

H03: Leverage (LEV) has no significant effect on affect firm value of Cyprus consumer goods manufacturing companies.

Leverage (LEV), based on the t-value of 1.56 and p-value of 0.18 was found to have a positive influence on our sampled quoted company's firm value and this influence is not statistically significant at 5% level since its p-value is higher than 0.05 alpha value. This result therefore suggests that we should reject our alternative hypothesis three (Ho3) which states that Leverage (LEV) has no significant effect on affect firm value of Cyprus consumer goods manufacturing companies.

Discussion of Findings

Firm Size (FRMSIZ) based on findings, was found to influence positively on our dependent variable, Firm value. This impact was not statistically significant. This finding therefore supports our aprori expectation and the findings of Desai and Dharmapala 2007; Audrey (2012) Mosota (2014) and negates the view of Ohnuma (2014).

Leverage (LEV) based on findings, was found to influence positive on our dependent variable, Firm Value, but this influence was not statistically significant. This finding therefore supports the finding of Mohd Razali, Ghazali, Lunyai and Tan Hwang (2018) and negates our aprori expectation and the view of Maria, Ina and Katharina (2016).

Conclusions and Recommendations

Conclusions

This study found that leverage and firm size impact positively on firm value, but this impact was not statistically significant. In order to maximize the value of the firm, company’s owners would like to minimize corporate tax payments net of the private costs of doing so; in other words they want the company to be
optimally plan diligently. There has been little rigorous empirical analysis of the benefits and costs to corporations of being tax planning. In this study, we attempted to fill this void, at least in part, by investigating the market reaction to an initial press mention that a firm was involved in a corporate tax shelter.

As discussed in the result obtained from the regression reflects that tax planning or ETR has significant and negative relationship with firm value, while BTDs has insignificant positive relationship with firm value. Therefore, firms with less tax planning may signal to investors the firms have better corporate governance compare than firms that engage aggressive tax planning. Based on the findings of the study recommended that since the influence of firm size and leverage are not statistically significant and so, the basis of efficient use of tax planning for firm value should be encouraged.

References


39. *Program on policy, Conflict & Strategic studies International Journal series* 2(1).


