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Factors Influencing the Tax Payment in Developing Countries: A Comprehensive Study from the Listed Companies in Bangladesh

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Abstract
Corporate taxes are an imperative source of revenue generation for the Bangladesh government. The research has been commenced with the prime intention of identifying the factors that has an impact on corporate tax payment in eleven industries consisting of ninety-four (94) companies in Bangladesh. This is a quantitative work based on a structure used on prior literature and studies crucial for the examination of corporate tax payment determinants that is cash flow from operations. And also the study scrutinized a list of research hypothesis on the basis of the framework and quantitative data. A three year data has been accumulated from the annual reports of the companies and ensured a sample of 280. The systematic random sampling method has been applied for the selection of the following industries Textile, Cement, Engineering, Ceramics, Fuel & Power, Tannery, Pharmaceutical, Food, Jute, Miscellaneous and Paper to confine the study towards the whole country. The Pearson Correlation and Multiple Regression analysis has been applied to understand the correlation of the key factors affecting corporate tax payments. Cash flow from operations has been found to be responsible for the variations in corporate tax collection. It endeavors to augment the literature by including illustrative image and a perception of corporate tax payment behavior in developing countries. This is done to enlighten policy tax administrators about the variables affecting corporate tax revenue and so steps can be taken to enhance tax revenues.
Keywords: Current tax payment, Audit fees, Leverage, Cash flow from Operations

1. Introductory Remarks

A tax is a compulsory contribution imposed by a public authority irrespective of the exact amount of service ren dered to the tax payer in return and not imposed as penalty for any legal offence (Dalton). Leroy Beaulieu descri bed it as a contribution, whether direct or masked which the public authorities impose upon the inhabitants or go ods for the purpose of defraying government expenditure.
The taxes that are central in Bangladesh are customs, duties, value-added (vat), supplementary duty and personal income taxes. The standard rate of vat on most of the imports and supplies of goods and services is 15% and is l evied on transaction value. The income tax rate for individuals is 30 per cent. The corporate tax rate was 45% for the tax year (July 1, 2014-June 30, 2015).
On the contrary, the tax rate is 27.5%, public traded companies registered in Bangladesh. Banks, financial institu tions and insurance companies are levied at the rate of 45%. All other companies have a tax rate at 37.5% effecti ve on 1July, 2011.

The tax system of Bangladesh is a blend of a variety of taxes which are as follows:
1) Taxes on Income and Profit includes a)Income Tax- Company and b)Income Tax-Other than company. 2)Tax es on Property & Capital Transfer involves a)Estate duty b)Narcotics Duty, c)Stamp Duty-non judicial , d)Gift T ax, e)Land Revenue f)Registration 3) Taxes on Goods and Services includes a)Customs Duties, b)Excise Duties , c)Value Added Tax ,d)Supplementary Duty usually levied on luxury goods in addition to VAT ,e)Taxes on vehi cles ,f)Electricity Duty and g)Other Taxes and Duties (travel tax, turnover tax, and so on) as described by income tax authors (Nikhil Chandra; Mohammad Zakaria Masud and Mohammad Faridul Alam)

The central authority for administration of tax in Bangladesh is NBR. It is under Internal Resource Division (IR D) of the ministry of finance (MOF). There are four divisions, namely the Finance Division, the Internal Resourc e division, and Economic Relations Division (ERD). Each division is divided by a secretary to the government. Secretary, IRD is the ex-officer chairman of NBR. The critical duties of NBR includes mobilization of domestic resources by .means of important duties, taxes, Vat and other types of taxes.

According to the budget analysis of Bangladesh (ICMAB), the contents of budget 2016-17 seems to be more inc

onsiderate on the lower income group as the limit of investment allowance decreased from 30 per cent to 20 perc ent. Salaried employees have to pay full taxes, since the companies deduct taxes at source from salary. These peo ple may have to bear more tax burden, since general people don't have the extravagance to get professional assist ance to evade or lower taxes. And for government employees having minimum salary up to Tk.16000 is not taxa ble under monthly payment under (MPO). The target revenue for 2016-17 is 37 per cent higher than the revised t arget for 2015-16. But this is done by raising taxes and offering additional products and services instead of bringi ng all taxable persons under it. The target for 7.2 per cent GDP growth in the next fiscal year requires private inv estment to be 1.5 percentage higher than the current level however no source of such money has been mentioned. On the contrary, the GDP of Bangladesh has fallen in the current fiscal due to unstable business environment. B ased on the data by International Monetary fund (IMF), the essential factors affecting investment in private secto r and economic growth are collapses in the finance industry and infrastructure deficit. Low quality public invest ments and poor preservation of infrastructure are major obstacles hindering economic growth in Bangladesh.

The tax structure of Bangladesh composes of both direct (income tax, gift tax, land development tax, non-judici al stamp, registration, immovable property, etc) and indirect (customs duty, excise duty, motor vehicle tax, narco tics and liquor, VAT,SD, foreign travel tax, TT electricity duty, advertisement tax, etc) taxes. Tax revenue consis ts of NBR and Non-NBR portion, The NBR portion includes taxes on income and profit, value added tax (VAT), import duty, excise duty, supplementary duty and other taxes and duties. The Non-NBR portion includes Narcot ics and Liquor Duty, taxes on vehicles, land revenue and stamp duty (Non-Judicial).

Moreover, the tax structure in Bangladesh is considered to be regressive due to its heavy reliance on indirect tax which was about 64% in 2014.However, this gap has been slumping from 2005 due to towering portion of direct taxes. With regards to Mohammad Shahid Ullah, the NBR Annual Report 2012-13 and Bangladesh Economic R eview 2015, it shows the following figures of the significant factors in current tax structure. It can be observed cl early from the table that VAT at import level makes a significant portion of total tax , followed by Vat consistin g the second most important factor in tax structure. Conversely, Excise tax and Supplementary duty makes a tiny impact in the total tax of the country.

	2008	2009	2010
Total Tax	47435.66	52527.25	62042.16
Vat % of total tax	37.25	38.36	39.44
Excise Tax % of to tal tax	0.45	0.45	0.56
Import duty% of to tal tax	30.48%	25.92%	39.37%
VAT at import leve l% of total tax	63.95%	67.67%	46.61%
Supplementary dut y at import level% of total tax	5.57%	5.57%	6.41%

Table 1: Significant Portions of Tax Structure

2. Objectives of the study:

The main objective of the research was to identify the key factors that influence current tax payment of the liste d companies in eleven industries in Bangladesh. The current tax payment may vary according to its industry. As,

a number of factors may have a significant impact on current tax payment , the paper focuses on identifying suc h variables like Leverage, Cash flow from operations and Audit fees

2.1 Specific objectives

To be precise, the study was conducted to:

- Investigates the correlations, if any, between tax payment and the Leverage
- Examine the correlations, if any, among tax payment and the Audit fees
- Determine the correlations, if any, among tax payment and the Cash flow from operations
- Identify the variables that has the most influence on tax payment

From the abovementioned research objectives, following hypothesis were made and are stated as follows:

H:1: There is a negative significant relationship between current tax payment and Leverage
H:2: There is a negative significant relationship between current tax payment and Audit fees
H:3: There is a positive significant relationship between current tax payment and Cash flow from operations

3. Literature review:

3.1 Current Tax Payment

Corporate Tax plays a significant role in tax revenue generation, which varies on the nature of industry. As managerial accounting practices intend to minimize current tax payment, it is critical to identify the factors motivating such behavior. Previous studies by T.J Atwood, Michael S.Drake, James N.Myers and Linda A.Myers have proved characteristics of tax system influence tax payment. Scott Dyreng, Michelle Hamlin and Edward L.Maydew have made verified relationships between tax system characteristics (book tax conformity) with earning persistence and future cash flows. Armstrong,C.,J.Blouin and D.Larckar ,2012 have further studied the relationship between tax director's incentive and tax characteristics. Moreover, numerous studies have been conducted to investigate the determinants of tax payments through relevant perspectives.

3.2 Leverage

Leverage is an important factor as debt interest is tax deductible and should lead to lower taxes.
It can be used as an alternate for the firm's capital structure. The study by Koon Hung CHAN,Zhenpin, Kenny LIN and Feng TANG 2013 found that, firms with incentives to account elevated book income pay notably higher income tax (per dollar of sales) in a full book-tax conformity system than do firms without the similar incentives. Furthermore, it is used to confine the level of the tax shield of debt and Mills, Erickson and Maydew (1998) investigated that greater the investment in tax planning results in higher leverage with lowering firm's effective tax rate (Scott D. Dyreng,Michelle Hanlon and Edward L. Maydew 2005). Following literature (Graham and Tucker 2006; Joulfaian 2010; Lisowsky 2010) observed substantial cross-sectional differences in tax avoidance. The findings by T .J. Atwood, Michael S. Drake James N. Myers and Linda A. Myers were consistent with prior investigation that located a positive relationship between tax avoidance and leverage (Dyreng et al. 2008). Audit fees is an important factor as the study by Christopher S. Armstrong, Jennifer L. Blouin and David F. Larc ker 2011 suggests that greater fees for auditor compared to a firm's size is an indicator of firm's contract with a uditor for tax planning objectives applied a proprietary set of facts with comprehensive information about execut ive compensation to observe the correlation between the incentives of the tax director and GAAP and cash effec tive tax rates, the book-tax gap, and extent of tax aggressiveness. The outcome showed that tax directors are giv en incentives to lessen the intensity of tax expense presented in the financial statements Moreover, the study sug gests that when a high tax burden is observed by firms, then there is a possibility that external tax consultants c ould be involved to assist the tax director.

3.3 Cash flow from Operations

Cash flow from operations is a firm-specific factor that will help to understand the book tax differences. As it is possible that insiders do have the power to cover firm's performance like they may raise the reporting of prospective revenues or postpone the reporting of existing costs to veil poor financial performance. On the other

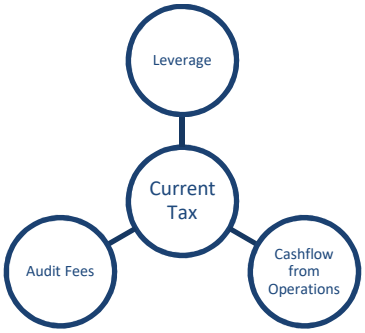
hand, insiders can control these procedures to understate good financial performance and hide reserves for the future.(Christian Leuz,Dhananjay Nanda and Peter D. Wysocki 2002)
T. J Atwood, Michael S.Drake and Linda A.Myers examines the relationship between a tax system characteristic (book tax conformity) with earnings persistence. The proponents argue that increasing required book-tax conformity will confine opportunistic behavior by management, hence tax authorities can also scrutinizes reported profits, and let shareholders to monitor taxes paid, hence increasing transparency (Desai 2005)

4. Methodology

4.1 Sample Design

A systematic random sampling technique has been used to sample ninety-four (94) listed companies for three ye ars in Bangladesh. The data was accumulated from eleven sectors such as, textile, engineering, pharmaceutical, t annery, cement, ceramic, paper, jute, power, food, and miscellaneous.

4.2 Variable Design



The factors are firm level factors that have been examined to determine variation in current tax payments are ind ependent variables like (1) audit fees, (2) cash flow from operations, and (3) leverage. These variables have been acquired from prior effectual research. Hence, research by Ali, A., and L. Hwang. 2000 computed audit fees of a country's ten largest accounting firms as a percentage of the country's gross domestic product for 1990. Howeve r, this paper uses the measurement by Armstrong, C., J. Blouin, and D. Larcker. 2012 that is total annual audit fe es paid by the firm.

Also, cash flow from operations has been derived from the annual reports of the companies while it has been me asured in the following way by previous researchers(Atwood, T. J., M. S. Drake, and L. A. Myers. 2010; Zimme rman, J. 1983; Leuz, C., D. Nanda, and P. Wysocki. 2003; Armstrong, C., J. Blouin, and D. Larcker. 2012). Such measurement has been taken because the cash flow from operations vary across different industries, therefore, d erivation from financial reports helps to maintain consistency.

Atwood, T. J., M. S. Drake, and L. A. Myers. 2010 computed Cash flow from operations is EARN less the chan ge in noncash current assets plus the change in current liabilities less the change in the current portion of long-te rm debt plus depreciation and EARN is net income before extraordinary items deflated by average total assets. Zimmerman, J. 1983 applied the measurement of Operating cash flows by the difference between sales and cost of goods sold.

Cash flow from operations by Leuz, C., D. Nanda. is equal to operating income minus accruals, where accruals a re calculated as: (Δtotal current assets - Δcash) -(Δtotal current liabilities- Δshort-term debt - Δtaxes payable) - d epreciation expense. The source of cash flow operations for the research by Armstrong, C., J. Blouin, and D. Lar cker. 2012 was Compustat OANCF.

Previous researchers (Kung Hung Chan, Zhenpin, Kenny LIN and Feng TANG 2013; Scott D. Dyreng, Michell e Hanlon and Edward L. Maydew 2010; Scott Dyreng, Michelle Hanlon and Edward L. Maydew 2005; Christop her S. Armstrong, Jennifer L. Blouin and David F. Larcker, 2011;T. J. Atwood, Michael S. Drake, James N. Mye rs and Linda A. Myers 2012) have computed leverage in terms of total long-term liabilities divided by total ass ets and the same procedure has been adopted to find the leverage.

4.3 Research Design

After collecting data from the annual reports and organizing them in MS Excel, it was analyzed using Statistical Package for Social Science (SPSS).As a result, these are the tools used to derive the statistical conclusion:

- Multiple Regression Analysis
  Multiple Regressions is an extension of linear regression. It is used in order to forecast the value of a variable based on the value of two or more variables. Hence, through the use of this model, an attempt has been made to predict the amount of taxes paid by the listed companies in Bangladesh.
- Pearson correlations
  The most common measure of correlation is the Pearson Correlation. It shows the linear relationship between two sets of data. The results will be between -1 and 1. The closer the value of r gets closer to zero, that means there is a greater variation in the data points.

A strong correlation exists when the value is either between 0.5 to 1 or -0.5 to 1
A moderate correlation exists when the value is either between 0.3 to 0.5 or -0.3 to 0.5
A weak correlation exists when the value is either between 0.3 to 0.5 or -0.3 to 0.5

4.4 Data Design
For this study, data from annual reports is the main source of data. The secondary data has been given preference that has been gathered from annual reports of three years.

4.5 Model Specification
Pearson correlation was applied to determine the relationship between the dependent current taxes paid against i ndependent variables like audit fees, leverage, and cash flow from operations. The multiple regression model tha t have been generated by using regression analysis that predicts current taxes paid using the other independent variables such as leverage, , cash flow from operations and audit fees.
The Regression Model:
$CTP = \alpha + \beta 1\ LEVi + \beta 2\ Auditi + \beta 3\ CFOi + \varepsilon i$

Where:
CTP = Current Taxes Paid
Lev = leverage
Audit= Audit Fees
CFO= Cash flow from operations

5. Findings
The outcomes of the study have been comprehended for the ninety-four companies (94) companies comprising o f eleven industries.

5.1 Analysis of Correlation of Dependent Variable (CTP) with other variables
The table-2 presents that Pearson Correlation has been used to measure the strength of the association between th e dependent variables current taxes paid (CTP) and independent variables such as total leverage, cash flow from operations and audit fees. A positive significant correlation has been found with current taxes paid as opposed to cash flow from operations (0.802). However, current taxes paid shares a poor negative relationship with leverage (r=-0.052), whereas, it has a weak positive relationship with audit fees (r=0.048).

		CTP	LEV	AUDIT	CFO
Pearson Correlation	CTP	1.000	-.052	.048	.802
	LEV	-.052	1.000	-.048	-.050
	AUDIT	.048	-.048	1.000	.068
	CFO	.802	-.050	.068	1.000
Sig. (1-tailed)	CTP	.	.192	.213	.000
	LEV	.192	.	.210	.202
	AUDIT	.213	.210	.	.127
	CFO	.000	.202	.127	.
N	CTP	281	281	281	281
	LEV	281	281	281	281
	AUDIT	281	281	281	281
	CFO	281	281	281	281

Table-2: The Pearson Correlation between independent and dependent variables

The R value from the table-3 which is 0.802 indicates a multiple correlation coefficient between current taxes paid and leverage, cash flow from operations and audit fees. The R square in table is 0.643, this means that, approximately 64% of the variance in current taxes paid is explained by the predictor variables (leverage, audit fees ,and cash flow from operations) in the model.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.802(a)	.643	.639	326963022.228248

Table-3: Robustness of the model

From the Table-4, it is clear that the F value is 166.266 and the P- value is 0.000. It can be concluded that the P-value of the F test is statistically significant which is indicated by P value of Zero decimal places. The p- value related with the F value is little (0.000) and when compared with alpha level of 0-01 it can said that independent variables consistently predict the dependent variable. If the p value were greater than 0.05, it can be referred to the group of independent variables (leverage ,audit fees and cash flow from operations) do not illustrate a considerable relationship with the dependent variable (Current Taxes Paid), or that the group of independent variables do not reliably forecast the dependent variable.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53323908462771000000.000	3	17774636154257010000.000	166.266	.000(a)
	Residual	29612634559582470000.000	277	106904817904629800.000		
	Total	82936543022353500000.000	280			

Table-4: Representation of the F-value

5.2 Results of the Hypothesis Tests

The table-5 enumerates that the following independent variables such as leverage and audit fees don't affect the current taxes paid by firms in Bangladesh. Since, the beta value of leverage is (--28729227.649) and the P-value is (0.730) which is more than the standard (α =0.05), so there is no considerable negative relationship between leverage and current taxes paid. Hence, Hypothesis 1 is rejected stating that there is a negative significant between leverage and current taxes paid. Interest is a tax deductible expense which should explain the negative relationship between the leverage and taxes (Koon Hung CHAN, Zhenpin, Kenny LIN and Feng TANG 2013).

And the beta value of audit fees is (-0.808) and the P-value is (0.835) which is also more than the standard (α =0.05), consequently there is no substantial negative relationship between audit fees and current taxes paid. Thus, Hypothesis 2 is rejected declaring that there is a negative significant between audit fees and current taxes

paid. Although, Bedard and Johnstone (2004), Krishnan and Visvanathan (2008) and (Hanlon et al., 2012) advocated that soaring audit fees indicates reduction in tax payment as auditors work towards manipulation of earnings. Nevertheless, as the study by Antonio Lopo Martinez andRubem Cardoso Lessa (2014) suggests effective corporate governance practice lessens this association and thus weak positive association could explain the outcome.

However, the table also illustrates that coefficient of the independent variable cash flow from operations shares a material relationship with current taxes paid by firms in Bangladesh. As the results, indicates beta value of cash flow from operations is (0.341) and the P-value is (0.000) which is less than the standard (α =0.05), so it can be concluded that cash flow from operations has a significant association among cash flow from operations and current taxes payments made by firms of different industries in Bangladesh. . Thus, Hypothesis 3 is accepted declaring that there is a positive significant between cash flow from operations and current taxes paid.
The anticipated regression model is stated as such:

$CTP = \alpha + \beta 4CFO + + \varepsilon i$
$CTP = 11427983.115 + 0.341CFO + \varepsilon i$

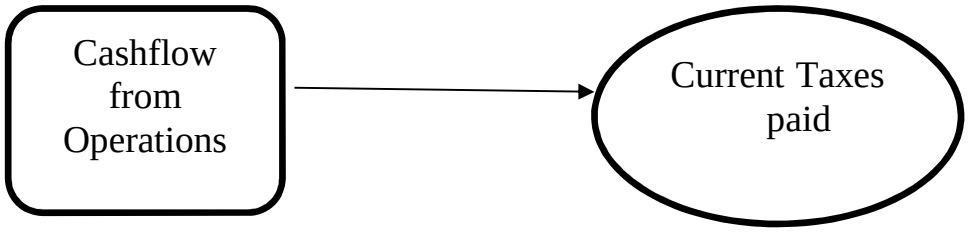


Figure 1. The coefficient Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11427983.115	24287328.722		.471	.638
	LEV	-28729227.649	83209201.186	-.012	-.345	.730
	AUDIT	-.808	3.864	-.008	-.209	.835
	CFO	.341	.015	.802	22.251	.000

Table-5: Regression Model

6.Conclusion and Recommendation

The research was carried out to examine the key factors determining the current tax payment made by firms in eleven different industries (Textile, Cement, Engineering, Ceramics, Fuel & Power, Tannery, Pharmaceutical, Food, Jute, Miscellaneous and Paper) from Bangladesh. The vital tool of data collection was survey through annual reports with the sample size of 288. The Pearson correlation indicates a significant positive relationship with current taxes paid and factors (cash flow from operations). Furthermore, the multiple regression analysis confirms a strong association of Cash flow from operations with current taxes paid in Bangladesh. However¸ it has been found that no material relationship exists among the remaining variables (leverage and audit fees) in relation to corporate tax payers. So, the evidence suggests that climbing cash flow from operations shows that government should provide incentives to firms to operate efficiently and ensure higher profitability. And also there is scope for further research in this area.

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