

CORPORATE TAX BURDEN: A REVIEW

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1.1 Introduction

Tax is neither a voluntary payment by the tax payer nor like a donation. Rather it is an enforced payment to the government. On nonpayment of it, the tax payer will be punishable by law (Aamir et al. 2011). Similarly, a corporate is also required by law to pay tax on its profit. But due to tax provisions and incentives, the tax burden may be reduced to some extents. “When a benefit is given to farmers or to the poor, experts and government officers normally call it a subsidy. However, I find that if a benefit is given to industry or commerce, it is usually an ‘incentive’ or a ‘subvention’.” –Prime Minister NarendraModi, February 15, 2016, Delhi” (Parakh, 2016). Here the tax burden meant to define the actual tax paid by corporates. The corporates which reduce their tax burden are called to be involved in tax planning in general view and some time involved in tax avoidance. The difference between tax planning and tax avoidance is that the tax planning is legal and tax avoidance is not morally right but even legal. Tax planning is allowed within the tax laws as it is considered as a legal tax avoidance scheme (Noor et al, 2010). Hence, the reduction of the tax is percept as Tax burden; Tax planning, Tax avoidance. The present paper aims to reviews the literature conceptualizing the tax burden on corporates along with tax planning and tax avoidance and reviewing the possible factors.

The present review of literature provides the insight regarding effective tax burden and possible causes that may explain the effective tax burden, tax planning and avoidance by corporates. Lietz (2013) conducted comprehensive surveys on literature having focused on determinants of corporate effective tax avoidance providing an updated overview of empirical studies on efforts made by corporates for reducing their tax burden and found that effective tax burden is affected by firm’s associating determinants. Misu (2011) also surveyed the various researches conducted by researchers to assess the variables affecting the tax compliance and found that tax compliance is affected by many economic and non-economic factors. An attempt is made in the present paper to review the existing literature so on to identify the research gap for providing platform for conducting research in the specified field as well as providing a comprehensive survey of literature for incorporating the emerging issue of corporates taxation in tax provisions by tax policy makers.

The Chapter is divided into 5 sections: The section 1 provides the introduction. The section 2 contains comprehensive literature enlightening the concept and measurement of effective tax burden, tax planning and tax avoidance by corporates. The section 3 highlights the comprehensive literature enlightening the studies related to determinants affecting effective tax burden and tax planning and tax avoidance among corporates in different sectors and in different

countries. The section 4 provides review of literature determinants wise association on above aspects. The section 5 provides the surveys of literature which link the corporate governance and tax planning and avoidance among corporates. Section 6 categories research model wise review of literatures in above aspect. The section 7 gives insight into research gap. The section 7 provides conclusion and future scope of research in the area of study.

1.2 Review of Literature enlightening the concept and measurement of effective tax burden, tax planning and tax avoidance by corporates

Previous literature highlighted studies conducted for defining and measurement of effective tax burden and effective tax planning and avoidance by corporates. Substantial amount of prior research have examined corporate effective tax rate (ETR) as a measure of corporate actual tax burden (Noor et al, 2008). In general, firms that avoid income taxes by reducing their taxable income while maintaining or enhancing their financial income will have lower ETRs making ETRs a reasonable measure of effective tax planning (Rego, 2003). Ariffin (2013) used log (ETR) to measure the tax burden and proxy of tax avoidance. Thus this review of literature highlighted that the effective tax burden, effective tax planning and tax avoidance all these aspects can be conceptualized by a single term that is Effective tax rate (ETR). ETR refers to actual tax paid by corporates on their income.

Mascagni and Mengistu (2016); Chiou et al (2014); Zarai (2013), Nicodeme (2007); Vandebussche et al (2004); Derashid and Zang (2003); Hulzinga and Nicodeme (2003); Nicodeme (2002); Janssen & Buijink (2000); Harris & Feeny (1999) Kim and Limpaphayom (1998); Holland (1997); Hsieh (2011) used ETR for measuring the tax reduction activities by corporates. Collins and Shackelford (2003); used ATR for measuring tax burden on U.S Multinationals. Oyeyemi and Babatunde (2016); Salihu et al (2014); Zarai (2013); Noor et al (2010); Albertazi and Gambacorta (2007); Rego (2003) used ETR for measuring the corporate tax planning. Dyreng et al (2010) measured corporate tax avoidance through using GAAP ETR and Cash ETR. A large number of domestic scholars adopt the effective tax rate index as measurement of tax planning for listed companies (Yuan and Xu 2015). Ariffin (2013) used log (ETR) to determine the tax burden and proxy of tax avoidance. Zimmerman (1983) conceptualized the effective tax burden of corporates by ETR

Harris and Feeny (2000) find ETR as the major instrument which is used by tax policy makers to analyze the neutrality of tax system and to carry the reforms in tax legislations. In general, firms that avoid income taxes by reducing their taxable income while maintaining or enhancing their financial income will have lower ETRs making ETRs a reasonable measure of effective tax planning (Rego, 2003).

(Airgeadais, 2014) provided different approaches for measuring effective tax burden on corporates in Ireland through ETR. Nicodeme (2001) provide different methodology for computation of corporate effective tax burden indicated by effective tax rate. The one is macro backward looking approach and second is Micro backward looking approach and third is Micro forward looking approach for calculating effective tax burden. He provides the evidence in favour of micro backward looking approach to compute effective tax burden on corporate level which is also based on ETR. But present study reviews the individual level corporate level tax

burden. Hence backward looking approach is used for defining ETR in present survey of literature. For defining ETR different authors used different definitions. (Harris & Feeny, 2000) defined ETR as Tax expenses/ Profit before tax. (Taylor and Richardson, 2014) also used two approaches for defining the ETR. ETR can also be defined as tax paid/ profit before interest and tax (Noor et al., 2008). And Tax expenses-deferred tax/ Profit before interest and tax (Zang, 2010)

1.3 Review of Literature in respect of determinants of corporate tax burden, tax planning and tax avoidance in different sectors and in different countries

The review of literature provides the insight regarding possible causes that May explain the effective tax burden and tax planning by corporates. An attempt is made in this section to review the existing literature so on to identify the research gap for setting-up to appropriate objective of this proposed study:

Salaudeen and Akano (2018) conducted the study on covariates of Effective tax burden in Non-financial sector in Nigeria and found the significant effect of covariates on effective tax burden. Salaudeen (2017) attempted to study the determinants of corporate effective tax burden in financial service sector and suggested to increase the tax incentives for banking and insurance sector. Oyeyemi and Babatunde (2016) highlighted that the tax laws loopholes and incentives were not fully utilized by firms of Nigeria. Hasan et al (2016) found that firm associating factors favour in decline the corporate tax avoidance. Mourikis (2016) examined the determinants of effective tax rate of Greek firms from different industries and found that more profitable and larger firms have higher tax burden. Parisi (2016) in his empirical result provided that the firm's variables are significant determinants of corporates ETR. PwC's (2016) suggested that corporate drivers are important determinant of corporate tax policy. Stamatopoulos et al. (2016) found the decreasing ETR after beginning of financial crisis in Greece. Thornton and Jaafar (2015) tried to examine the impact of tax haven operations on effective tax burden on public and private listed firms in Europe. It was found that tax haven operations are associated with lower effective tax rates for both public and private firms. Airgeadais (2014) found the economic effect of corporate taxation with major consideration to impact on growth. Chiou et al (2014) attempted to determine the factors affecting the effective tax rate for firms in China. It was found that more observations along with firm's association could be added in model to get better result. Delgado et al. (2014) used a different approach for analyzing the tax burden and concluded that different sectors pattern should be further analyzed for effective tax rate. Edward et al. (2013) found that firms facing microeconomic financial constraints have lower ETR. Kraft (2014) found the evidence of negative effect of reforms on effective tax burden of corporates in German firms. Salihu et al (2014) suggested so more transparency is required in GLC companies in regards to tax matter in Malaysia. Svitlik (2014) observed the heterogeneity in tax burden was less in economic sector in comparison to geographical regions in Czech Republic. Taylor & Richardson (2014) found that firm's tax position, tax expertise and performance based remuneration incentives increase the tax avoidance by corporates in Australia. Wang et al. (2014) observed that agriculture sector had significantly lower ETR. It was also evident that real estate sector had higher ETR which provided a valuable information to investors to be aware while investing in

real estate. Choi & Lee (2013) provided the result that firms managed their book tax accruals and book only accruals in response to change in statutory tax rate in Korea. Izadinia et al. (2013) found the significant impact of industry on Corporate Effective Tax Rate in Taiwan. Janickova (2013) evaluated the effective corporate tax rate in the Moravian Silesian region in Czech Republic and observed that corporate tax quota provides the same level of tax burden in regions of country. Suzuki (2013) concluded in his study small Asian countries with little rent in domestic markets set their effective tax rate at zero and large countries maintain much higher effective rates. Wu et al. (2013) attempted to study the impact of ownership type and institutional environment on firm taxation in non-financial sector in China. Tax policies were an effective tool of local government to attract the private investment. Delgado et al (2012) found the significant effect of size and other possible factors on corporate effective tax burden. Hsieh (2012) attempted to detect the variation in sensitivity of firm's ETR to its determinants in China and found that all the large firms might not enjoy the political power and sensitivity of firms' ETR can be detected to various firms' specific features. Hansson et al (2012) provided the evidence that different economic and political factors affect the level of incentives which affect the level of tax rates in over 19 countries. Irina & Vintila (2012) provided the evidence in favour of significant association of firm's associates with tax burden on the corporates in Romania. Wu et al (2012) provided that for non-preferential tax firms and for preferential tax firm, no such significant association could be observed in China. Bansadja (2011) in his research project concluded the significant impact of firms' characteristics on ETR in Nairobi. Chen et al (2011) observed the significant impact of firms' characteristics on ETR in Taiwan. Hsieh (2011) attempted to examine the relationship between firm size and effective tax rates under PIUA Act (Promotion Industrial Upgrading Act). Firms with moderate high ETR get the largest tax reduction from PIUA when firm size increase. Martani et al (2011) attempted to see the factors affecting the book tax gap in Indonesia and found that the bigger the size of company, lower the book tax gap. Noor et al (2010) investigated the relationship corporate effective tax rates and their attributes in nine sectors in Malaysia. The finding of paper was that effective tax rate within and between sectors was different. Zeng (2010) conducted study on long term tax liability of companies of China. The specific point of attraction of this research was that the author used total effective tax paid by corporates rather than individual year tax paid by corporate to compute the effective tax burden. The study found that effective tax rate paid by corporation is less than statutory tax rate. Elschner & Vanbarren (2009) found that reduction in corporate effective average tax rate was getting lower than for statutory tax rate in European countries and there was less dispersion in effective tax levels than new member states. Markle & Shackelfore (2009) provided that Japan faced more ETR than other countries. Worldwide ETR fell over last two decades. Simovic (2009) highlighted the fact in his study that Croatia provided a lot of tax holidays to its corporates. Dyreng et al (2008) attempted to develop a new measure for determining the long run tax avoidance in U.S and found that effective tax rate for one year is not a good predictor for determining long run tax avoider. Noor et al. (2008) found that corporate effective tax rate was different within and between attributes among large Malaysian listed companies during new tax regime. Guha (2007) concluded that large companies have more favorable tax exemptions than medium and small corporates of Indian private manufacturing companies. Loretz (2007) attempted to study the relevant determinants of companies' effective

tax burden in OECD countries through bilateral aspects. It was found that larger countries were more likely to reduce tax burden and geographically remote countries imposed higher taxes. Nicodeme (2007) found that large companies have less tax burden in E.U. Richardson & Lanis (2007) provided the evidence of significant association of tax reforms and firms specific variables affecting the effective tax rate. Adhikari et al (2006) found that political connection was significant determinant of ETR in developing economies. Crabbe & Leuven (2006) found the Competition between regions for corporate effective tax was found between regions. Janssen (2005) provided the evidence of neutrality in the corporates in Netherland. Langli & Saudgaran (2004) attempted to study the taxable income differences between domestic controlled companies and foreign controlled companies in Norway. It was found that foreign controlled corporations in wholesale and retail industry had lower taxable income than domestic controlled corporation except in the case of manufacturing industry. Vandenbussche et al (2004) analyzed the regional heterogeneity of effective tax rate in firms of Belgian and found the evidence of regional heterogeneity in firms of Belgium. Derashid and Zhang (2003) investigated the Effective tax rates and the "industrial policy" hypothesis in Malaysia. The result highlighted the evidence in favour of political power hypothesis. Hulzinga and Nicodeme (2003) found the corporate having higher foreign ownership have more tax on corporate tax burden in Europe. Rego (2003) in his study found the evidence that MNCs had lower effective tax rate than domestic companies in U.S. According to Nicodeme (2002), some sector and size have more favorable tax burden with in the country in E.U. Harris and Feeny (2000) investigated in his only paper which introduces the variable habit persistence to pay the tax by corporates to analyze the determinants of corporates' tax burden. The author found ETR as the major instrument which is used by tax policy makers to analyze the neutrality of tax system and to carry the reforms in tax legislations. Janssen & Buijink (2000) found that taxation of corporate profits in Netherland was fairly neutral. Buijink et al (1999) found the tax to be neutral in E.U. Gupta and Newberry (1997) suggested the effect of TRA86 is doubtful to impact the equity of tax. Holland (1997) attempted to examine the relationship between firm size and corporate tax burden from 1968-1993 and observed that over the period of 1968-79 there is significant relationship between firm size and effective tax rate but less significant relationship afterward. Smith et al (1997) attempted to comparative analyze the effective tax rate in banking and oil gas industry over the period of two major tax reforms. It was found that reforms do not have similar impact on all the sectors. Limpaphayam & Rhee (1996) found that keiretsu firms have lower effective tax rates than independent firms in Japan. Zimmerman (1983) found the stronger association between size and effective tax rate in oil industry. Gupta (1981) found the evidence that India had many provisions that helped the growing companies to reduce their tax liabilities. Halleux and Valenduc (2007) concluded that Tax burden was different between different sectors of Belgium. Len et al (2012) suggested that more tax preference can be used **for model. Chen et al (2001) found the significant impact of stock and land capital gains significant impact on corporate ETR for reducing the tax burden. Liu et al (2001) highlighted the fact in his study that he 1986 tax reforms had increased the tax burden on corporates. Bloom et al (2000) found that corporates made efforts to change their R&D expenditure to get the tax benefit. Lazar and Filip (2011) provided the evidence that Labour intensive sector bear more tax burden than capital intensive tax burden in Romania. Quinn and Shapiro (1991) conducted study on the forms and mechanisms of business**

power in U.S. politics regarding taxation on manufacturing and service sector corporations in U.S. The author found that for both type of firms, taxation and redistribution of tax on firms, election and politics matters.

1.4 Review of Literature enlightening the firm specific characteristics as determinants of varying effective tax burden

Size as determinant of ETR

For highlighting the impact of size on effective tax rate of corporates, there are two argumenting theories: one is political power theory and second is political cost theory.

Rojas et al (2017); Mourikis (2016); Stamatopoulos et al (2016); Ribeiro et al. (2015); Amoghina et al. (2014); Delgado et al (2012); Len et al (2012); Noor et al. (2008); Vandenbussche et al. (2004); Derashid and Zhang (2003); Rego (2003); Harris and Feeny (2000); Wang et al (2014) concluded in their study the size of a corporates have positive significant impact on ETR of corporates while Saaludeen and Akano (2018); Andreas and Savitri (2017); Sartaji&Hassanzodeh (2014); Hsieh (2012); Richardson and Lanis (2007); Guha (2007); Crabbe and; Leuven (2006); Derashid and Zhang (2003) found the negative significant impact of size on ETR and Inua (2018); Salaudeen (2017); Kerr et al (2016); Halleux and Valenduc (2007); Janssen and Buijink (2000) found no association between size and ETR.

Leverage as determinant of ETR

Andreas and Savitri (2017); Delgado et al (2012); Wang et al(2014); Hsieh (2012); Irina &Vintila (2012); Zeng (2010); Crabbe and Leuven (2006)found that leverage have positive significant impact on ETR. Inua (2018); Rojas et al (2017); Salaudeen (2017); Mourikis (2016); Stamatopoulos et al (2016); Ribeiro et al. (2015); Len et al (2012); Crabbe (2010); Noor et al. (2008); Richardson and Lanis (2007); Derashid and Zhang (2003); Janssen and Buijink (2000) concluded in their study that leverage have negative significant impact on ETR. Saaludeen and Akano (2018); Kerr et al (2016) found no significant impact on ETR.

Profitability as determinant of ETR

Mourikis (2016); Stamatopoulos et al (2016); Ribeiro et al. (2015); Rojas et al (2017); Len et al (2012); Delgado et al (2012); Hsieh (2012); Derashid (2003); Janssen and Buijink (2000) found that profitability have positive significant impact on ETR. Andreas and Savitri (2017) Salaudeen (2017); Saaludeen and Akano (2018); Khaoula and Ali (2012); Irina &Vintila (2012); Noor et al. (2008); Zeng (2010); Rego (2003); Derashid and Zhang (2003) found the negative association between profitability and ETR.

Capital Intensity as determinant of ETR

Andreas and Savitri (2017); Salaudeen (2017); Mourikis (2016); Stamatopoulos et al (2016);

Ribeiro et al. (2015); Irina & Vintila (2012); Hsieh (2012); Noor et al. (2008); Guha (2007); Crabbe and Leuven (2006); Derashid and Zhang (2003); Harris and Feeny (2000); Janssen and Buijink (2000); Buijink et al. (1999) concluded that capital intensity have a negative significant impact on ETR. Wang et al (2014); Delgado et al (2012); Vandenbussche et al. (2004) found the positive association between capital intensity and ETR. Saaludeen and Akano (2018); Rojas et al (2017); Len et al (2012); Irina & Vintila (2012) concluded no association between capital intensity and ETR.

R&D Intensity as determinant of ETR

Ribeiro et al. (2015); Richardson and Lanis (2007); Crabbe and Leuven (2006); Vandenbussche et al. (2004); Buijink et al. (1999) found negative association between R&D intensity and ETR.

Inventory Intensity as determinant of ETR

Derashid and Zhang (2003); Saaludeen and Akano (2018); Mourikis (2016) found no association between inventory intensity and ETR. Ribeiro et al. (2015); Delgado et al (2012); Len et al (2012); Hsieh (2012); Richardson and Lanis (2007) found positive association between inventory intensity and ETR. Andreas and Savitri (2017); Stamatopoulos et al (2016) found negative association between inventory intensity and ETR.

1.5 Review of literature linking corporate governance and tax planning and avoidance

Rani et al (2018) found the significant impact of corporate governance on corporate tax avoidance in manufacturing sector in Indonesian manufacturing firms. Inua (2018) Kerr et al (2016) attempted to study the relationship between strength of corporate governance and tax avoidance and found the significant association between corporate governance and tax avoidance. There was huge increase in effective tax rate after implementing the reforms of corporate governance in Mexico. Kiswanto et al (2016) also concluded that corporate governance has significant link with tax payment efficiency. But in this study, very less time period was taken which may not be much beneficial for concluding the result. Armstrong et al (2015) examined the link between corporate governance, managerial incentives and corporate tax avoidance and observed the financial sophistication for low level of tax avoidance but negative relation for high level of tax avoidance. Boussaidi and Hamed (2015) found no association between corporate governance and effective tax planning among Tunisian firms which controverse the result of Khaoula & Ali (2012) which found that the board of directors may have substantial effect on corporate tax planning among Tunisian firms. Gomes (2015) investigate whether the corporates use the corporate governance mechanisms to manage the tax and found that corporate governance have significant effect on effective tax rate. Matinez et al (2015) in his paper could not significant evidence of link between corporate governance and tax planning activities of Brazilian firms. The strength of the research paper was to use the information beyond the financial reporting. Mulyadi and Anwar (2015) conducted the study to investigate the link of corporate governance with corporate earning management which is used by corporates to

control its income for impacting the tax on income of corporates and found that corporate governance has significant effect on earning and tax management and independence of board and board compensation has consistently significant relationship with effective tax rate or tax management. Ribeiro (2015) also found the significant impact of corporate governance characteristics on effective tax rates for London non-financial firms. Amoghina et al (2014) attempted could not find the significant link between corporate governance mechanisms and tax violation in Tehran while Sartaji & Hassanzodeh (2014) concluded varying result of association between corporate governance variables and tax planning in Tehran. Annuar et al (2014) also concluded the significant association between corporate governance and aggressiveness of tax planning among Malaysian firms. With continuing similar trend, Mulyadi et al. (2014) found significant link of corporate governance with tax management. Zarai (2013) suggested that it was fertile to use the corporate governance variable for finding association with tax planning by corporates in regards to American firms. Zemzem and Ftouhi (2013) found that size of board decrease the activity of tax aggressiveness in French firms. Armstrong et al (2012) also observed the significant impact of corporate governance on tax avoidance. Crabbe (2010) attempted to study the effect of tax advice expenses and auditor on effective tax rate for large Belgian firms after the implementation of corporate governance code. The author found that expenses on tax advice did not have the significant effect to reduce effective tax rate while the hiring of big four auditors affect the ETR but less than the time before reforms. Dyreng et al (2010) found that executives have significant effect on corporate tax avoidance. Sari and Martani (2010) suggested that corporate governance was influential to tax management by Indonesian corporates. Boussaidi and Hamed (2015) tried to examine the impact of corporate governance on tax aggressiveness in Tunisia. The study is based on sample of 39 Tunisian listed corporates taken for the period of 2006-2012. For analysis, random effect econometric model is used. The result of study shows that diversity in gender on corporate board, managerial and concentration ownership has significant impact on effective tax rate proxy for tax aggressiveness. But no significant evidence is found for impact of corporate board size and external auditor' profile on ETR.

1.6 Review of Literature defining new research models taken for analysis of effective tax rate

From table it is observed that Hsieh (2011) attempted to examine the relationship between firm size and effective tax rates under PIUA Act (Promotion Industrial Upgrading Act) in Taiwan firms. For analysis, he used a new model which is Quantile regression. Again, Hsieh (2012) explained the different levels of effective tax rate and detected the variation in sensitivity of firm's ETR to its determinants through Quantile regression on China firms. Armstrong et al (2012) used the Quantile regression to analyze the link between corporate governance, Management incentives and tax avoidance. Delgado et al. (2014) used this obvious new model for analyzing the covariates of Effective tax burden. Armstrong et al (2015) also used Quantile regression to examine the link between corporate governance, managerial incentives and corporate tax avoidance. Parisi (2016) examined the determinants of effective corporate tax rates in Italy using the Quantile regression. Salaudeen and Akano (2018) used a new approach for

analyzing the covariates of Effective tax burden in Non-financial sector in Nigeria. The table 1.1 highlights the survey of literature using different research model for analysis of etc.

Author	Year of publication	Statistical tool
Salaudeen and Akano	2018	Quantile Regression
Inua	2018	F.E Regression Model
Rani et al	2018	R.E Regression Model
Andreas and Savitri	2017	Model Regression
Rojas et al	2017	GMM (Generalised Method of Moments)
Salaudeen	2017	Pooled OLS Regression and Random Effect model of Regression
Zeng	2017	OLS Regression Model
Hasan et al.	2016	OLS, Pooled OLS and 2 SLS
Kerr et al.	2016	OLS with fixed Effect
Kiswanto et al	2016	SOBEL Test
Oyeyemi and Babatunde	2016	GLS Regression Model
Parisi	2016	F.E panel regression and Quantile regression
Stamatopoulos et al	2016	R.E Regression
Armstrong et al	2015	OLS and Quantile regression
Alkemade	2015	OLS regression
Dyreng et al	2015	OLS regression
Boussaidi and Hamed	2015	Random Effect Regression
Thornton and Jaafar	2015	OLS regression
Ribeiro et al	2015	GLS Regression
Mulyadi and Anwar	2015	Panel regression
Martinez et al	2015	OLS Regression
Amoghina et al	2014	OLS Regression
Salihu et al.	2014	GMM
Sartaji & Hassanzodeh	2014	K-S Test, OLS, fixed effect and Random Effect
Chiou et al.	2014	Panel Data model with two sides censoring
Delgado et al.	2014	OLS and quartile Regression
Edward et al	2013	Regression
Zarai	2013	Regression
Zemzem and Ftouhi	2013	OLS Regression
Kraft	2014	F.E Regression
Svitlik	2015	Time series and Cross sectional analysis
Taylor & Richardson	2014	OLS Regression
Wang et al.	2014	OLS Regression
Choi & Lee	2013	General Regression
Izadinia et al.	2013	Multiple Regression
Len et al	2012	Panel model with two sided censors
Armstrong et al	2012	OLS and Quantile regression
Costa et al	2012	EGLS Regression
Delgado et al	2012	OLS Regression and F.E Regression
Hsieh	2012	OLS Regression and Quantile regression
Hansson et al	2012	OLS Regression
Irina & Vintila	2012	F.E and Random Effect Regression

Khaoula& Ali	2012	Regression
Wu et al	2012	Regression
Bansadja	2011	OLS Regression
Chen et al	2011	Fixed effect panel model with two side censoring and without two side censoring,
Hsieh	2011	OLS and Quantile Regression
Lazar	2015	F.E Regression
Boussaidi and Hamed	2015	Random Effect econometric Model
Tatu et al	2010	Dispersion and chi- square
Noor et al	2010	Multivariate Model
Zeng	2010	OLS Regression
Crabbe	2010	Regression model based on Vandenbussche et al. (2005)
Sari and Martani	2010	ANOVA and panel regression
Markle&Shackelfore	2009	Regression
Dyrenge et al	2008	Descriptive Statistics and Regression
Noor et al.	2008	OLS Regression, F.E and R.E model
Minnick and Noga	2008	F.E Regression
Guha	2007	Multivariate Regression
Halleux and Valenduc	2007	Logit Regression Model
Loretz	2007	Regression
Nicodeme	2007	OLS Regression, F.E and Random Effect Regression
Richardson & Lanis	2007	Regression
Adhikari et al	2006	Regression
Crabbe & Leuven	2006	Regression
Janssen	2005	OLS and Rank Regression
Langli&Saudgaran	2004	Multiple Regression
Vandenbussche et al	2004	OLS Regression
Collins and Shackelford	2003	Pooled and cross sectional regression
Derashid and Zhang	2003	Multi-Regression
Hulzinga and Nicodeme	2003	Regression and 2 SLS
Rego	2003	OLS Regression
Nicodeme	2002	OLS Regression
Harris and Feeny	2000	OLS Regression
Janssen & Buijink	2000	OLS Regression
Kumar & Sudheesh	2007	Regression
Buijink et al	1999	Regression
Harris & Feeny	1999	OLS Regression
Gupta and Newberry	1997	OLS Regression

2.5 Research Gap

1. Few researches have been found from the perspective of reforms and determinants of corporate effective tax rates.
3. Few researches have been found from the perspective of using effective tax rate for determining fairness of sectorial tax burden in India.
4. Few researches have been conducted from the perspective of corporate governance and effective tax rates in India.
5. Few researches have been conducted from the perspective of tax avoidance through effective tax rates in India.

6. Few research has been found from the perspective of aggressiveness of corporate tax planning in India.

7. No research has been found with a new approach for analysis in the area in India.

2.6 Future Scope

The present study attempts to fulfill the gap of determining the sectorial significant impact on effective corporate tax rates and determining the inequity in sectorial tax burden on corporates in India and how much the reforms taken in Indian taxation system leads to the equity in corporate tax system in India. The future scope in this area is to conduct:

1. To conduct study on Determining the significant impact of corporate governance on corporate effective tax rate in India.
 2. To conduct study on Long Run Corporate tax avoidance in India.
 3. To conduct study on reforms and corporate tax avoidance in India.
4. To conduct study on aggressiveness of tax planning in the corporates in India

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