

Determinants of Business Taxpayers' Return Filing Compliance: An Empirical Study of Malaysian Firms

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ABSTRACT

The purpose of this study is twofold. It investigates the relationship between business taxpayers' return filing compliance (TRFC) and three important variables: taxable sales, tax penalty, and licensing experience. It also seeks to present new insight into the association between licensing experience and TRFC. The study sample consists of 150 business firms with service tax adjustment. Data are sourced from tax audit reports and a supporting database over the period of 2010 to 2012. The hypotheses are tested using multiple regression and ANOVA analysis. The results show that taxable sales and licensing experience are positively related to TRFC, whereas proportional penalty is significantly negative. There is a significant difference among the tax experience groups. The highest mean of tax returns is reached at 12 - 15 years of experience. The findings of this paper indicate that business TRFC is likely to improve with higher penalties and longer tax experience. Some taxpayers who file returns regularly and 'on time' may fail to file correct taxable sales. The study contributes to knowledge of tax research and would ultimately assist tax administration to enhance taxpayers' filing compliance and audit planning.

1. INTRODUCTION

Taxable persons or business entities are required to be licensed (or registered) and file accurate tax returns in accordance with their respective country's tax laws and regulations. In order to ensure the correct amount of tax is declared or reported in the returns and all taxes due are paid, revenue authorities need to conduct tax audit. Selecting tax returns based on predetermined criteria can be computer generated using software application, and/or performed manually through explicit knowledge, work experience and expertise in risk-based audits. Generally, important issues or inconsistent items on tax returns could trigger an audit. In the case of the US Internal Revenue Service (IRS), the audit triggers for small businesses are: (i) business owners with high cash income; (ii) filing returns with

mathematical errors; (iii) returns with several claims or deductions; (iv) filing incomplete returns or non-filing; and (v) huge increases or decreases in profit from year to year (Americans for Community Co-operation in Other Nations (ACCION), 2020). In general, the IRS targets for field audit are: (i) taxpayers with abusive issues related to offshore accounts or international issues, had audit rate at 5.2% in 2017; (ii) businesses with specific domestic abusive transactions and tax shelter activity; (iii) taxpayers with earnings of more than \$1,000,000 a year, had audit rate at 4.4% ; (iv) cash business, online sales or crypto-currency; (v) fraud or illegal income cases; (vi) computer selected based on taxpayer's DIF (Discriminant Function) scores, had audit rates at 12%; and lastly (vii) ongoing legacy projects (US TIGTA Department of the Treasury, 2019, p.2, cited Buttonow, 2019).

As far as we know, most empirical research conducted were related to various demographic, cultural, behavioural, regulatory, and economic factors of tax evasion (Kirchler, 2007; Dell'Anno, 2009; Khelif & Achek, 2015). However, there seems to be a lack of research into the key variables affecting business taxpayers' return filing (TRF) compliance. Although there are a few economic or demographic characteristics that can affect business TRF compliance, nevertheless this research will focus on exploring three major characteristics of business TRF compliance for assessing risk of filing non-compliance as well as under-reporting of taxable sales on tax return. Moreover, existing research in Malaysia are mostly related to direct taxes, particularly income tax; whilst there are not many indirect tax compliance studies on business firms or service tax collection agents.

Since year 2003, IRS had been using tax returns data for research and selection of medium-high risk cases for audit examination. In 2018, the IRS rate of collection had been reported in TAS (Taxpayer Advocate Service) 2018 Annual Report as dependent on both the type of audit conducted and the outcome of the examination (Erard *et al.*, 2018, p.79). Similarly, tax authority in Malaysia has also used tax return data (with particular attention to nil returns) for audit examination; however there have been few research studies carried out using tax return data or actual audit data. Therefore, it is important to examine the determinants of business taxpayers' return filing compliance and understand how it could help improve audit selection effectiveness and efficiency. To ensure the best data analysis, data quality and accurate findings in the study, audit data are utilised and verified by a supporting database to avoid errors and maintain data accuracy. Hence, this study will contribute to the knowledge on business TRFC, assist researchers close the gap and, ultimately help tax administration to enhance filing compliance and strategic audit planning.

The purpose of this study is twofold. It investigates the relationship between business taxpayers' return filing compliance (TRFC) and three important variables - taxable sales, tax penalty, and licensing experience, and proceeds to further analyse and better understand the relationship between licensing experience and business TRFC. It in fact seeks to present new insight into the influence of licensing experience on TRFC.

2. HYPOTHESIS DEVELOPMENT AND LITERATURE

2.1. Hypothesis development

In 1972, Allingham and Sandmo developed a model of tax evasion based on four main economic factors: tax rate, audit probability, income, and penalty. The model explained how much income the taxpayer would report and evade. If evasion is not detected by tax authority, the net income of the taxpayer (Y) would be

$$Y = W - t(W - E) = (1 - t)W + tE$$

Whereby W denotes the taxpayer's gross income; t is the tax rate; E is the amount of underreporting or evaded amount; and the reported income is $W - E$.

On the contrary, if evasion is detected by tax authority, he will pay a penalty rate of tax on the evaded amount, such that the net income of the taxpayer (Z) would be

$$Z = (1 - t)W + t(E) - ?E = (1 - t)W - (? - t)E$$

Therefore, any increase in either penalty rate or probability of detection may reduce the Z net income of the rational expected utility maximizer and tend to deter evasion.

Further development of this neoclassical model or paradigm has shown that: (i) as the tax rate increases, the income evaded decreases, if penalty is imposed on the evaded tax (Yitzhaki, 1974); (ii) an increase in tax rate may reduce compliance rate, only if taxpayers can determine their desired level of compliance (Lin & Yang, 2001); (iii) a lower tax rate is not likely to reduce business tax evasion (Nur-Tegin, 2008); and (iv) higher tax rates would encourage compliance assuming that higher tax rates lead to higher penalty payments (on evaded tax) at the initial optimum when caught (Gahramanov, 2009).

Several additional studies have found that: (i) the compliance rate will increase if taxpayers are informed of audit certainty and amount of unreported income (Alm & McKee, 2006); (ii) behaviour predictions are

obtainable using the tax compliance demand curve *i.e.*, a graphical representation of the optimum condition (Yaniv, 2009); (iii) the taxpayer decisions (to evade or comply) are affected by the time and average burden from all kinds of taxes (Dalamagas, 2011); and (iv) tax uncertainty seems likely to have a greater influence on business decision in developing countries than in other member countries (OECD, 2019).

In this study, the original model of basic tax evasion (Allingham & Sandmo, 1972) is chosen as the framework and basis for understanding the phenomenon of: (a) what are the variables influencing business taxpayers' return filing compliance level; (b) why people comply or do not comply with tax laws and regulations; and (c) how to improve taxpayer filing compliance.

2.2. TRFC studies using tax return data or audit data

A brief review of previous tax compliance studies on determinants of tax return filing compliance (TRFC) that utilised tax return data is as follows. Using county and state level data on non-filing rates for the tax year 2000 that is obtained directly from Internal Revenue Service (IRS), Alm *et al.* (2016) examined the role of socio-economic diversity on tax compliance and they found that (a) non-filing is increasing with heterogeneity by race; (b) non-filing is decreasing with heterogeneity by religious membership; (c) non-filing rates tend to fall with the enforcement index. In particular, Small and Brown (2019) revealed that when enforcement (of taxpayer services) is relatively weak, there is null 'filing and payment compliance' effect for the corporate income tax; but when such enforcement is relatively stronger, there is positive effect for the general consumption tax. Similarly, Santoro and Mdluli (2019) used Eswatini administrative data for the period 2013- 2017 to analyse nil returns and they estimated that (a) nil filing rises to 40% per year in certain specific sectors such as construction, ICT and services; (b) nil filing is more common for SMEs (30%) than large firms (5-7%); (c) nil filing is more frequent in newly registered firms (46%) than older firms (26%); and lastly (d) the percentage of nil returns per year *i.e.* submitted over the 5-year period is as high as 29%.

In addition, a brief outline of the related studies using audit data is as follows. Using past Internal Revenue Service (IRS) operational audits up to 2002 and appeal data merged with confidential tax return data from the 'Voluntary Compliance Baseline Management', Hanlon *et al.* (2007) examined the extent and nature of corporate tax non-compliance. In general, they found that foreign controlled firms have a smaller deficiency than their domestic counterpart; larger firms were more compliant; and that multinational firms have a greater tax deficiency than non-multinational

firms. They also found there is no relation between governance quality and the proposed deficiency; and there is little evidence that lower effective tax rates are related to deficiencies.

2.3. Related studies on the determinants of TRFC

Indeed, there seems to be a lack of research into the direct relationship between 'taxable sales or income, tax penalty, licensing experience' and business taxpayers' return filing compliance (which could be considered as proxy for tax non-compliance). This could be due to the confidentiality of tax returns and return information such as audits, appeals, and any effort to collect unpaid 'back taxes'.

Early studies of tax compliance have found that an increase in the probability of audit or audit rate have resulted in significantly higher levels of taxable income being reported (Coltfelder, 1983; Dublin & Wilde, 1988; Beck *et al.*, 1991). Different level of income may also affect tax non-compliance as taxpayers may feel it is acceptable to under-report small amount of income (Worsham, 1996). Tax evasion increases with income (Giese & Hoffman, 1999). In a later study using IRS data for the tax year 2001, it was found that for reported income adjusted for under-reporting, the ratio of aggregated misreported income to true income generally increases with income while the ratio of under-reported tax to true tax is highest for lower-income taxpayers (Johns & Slemrod, 2010).

Brink and White (2015) conducted an experiment using 147 taxpayers with audit experience and found that shared interest in tax savings and penalties reduce the subjects' voluntary decision to evade taxes. Besides, a persistent regret salience from an unfavourable audit also decreases tax evasion behaviour. Choo *et al.* (2016) found that higher fines increase compliance.

It has long been known that licensing experience is associated with working experience, knowledge, information, human mistakes, taking risks and learning things¹. Nkwe (2013) examined small businesses in Botswana and found that the number of years of working experience in the same occupation does influence the taxpayers' compliance level of paying taxes. As to whether, the business firm would pay taxes correctly or not, this may depend on its cost-benefit analysis, social norms, or other influences. Awunyo-Vitor and Mbawuni (2015) utilised survey data from a sample of 244 retail traders in Ghana to examine the determinants of the VAT Flat Rate Scheme (VFRS) compliance. The regression results showed that education level, 'years of experience' as the business owner, and knowledge of penalty for non-compliance significantly influence taxpayers' decision to comply with the law.

Finally, an economic and political explanation for business tax return filing compliance is proposed by referring to the Expected Utility Theory (since the 1940's) and Rawl's Ideal Theory (1999). In brief, the Expected Utility (EU) theory assumes that individuals are EU maximizers. They may be risk-neutral, risk-averse or risk-seeking having utility functions that are linear (with constant marginal utility), concave (with diminishing marginal utility) or convex (with increasing marginal utility) respectively. Whereas Ideal theory assumes there is full compliance with ideal moral principles under favourable circumstances such as economic, social, political and historical conditions.

3. METHODOLOGY

The sample consists of 150 Malaysian business firms that were audited in year 2012 and have 'tax dues' over the period of 2010 to 2012. This sample size is larger than 30, hence 150 can be regarded as an appropriate sample size for research (Sekaran, 2003). Data are obtained from accounts inspection reports completed in 2012 on the 2010-2012 tax returns and cross-checked for accuracy by using database information. The statistical analysis is performed using IBM SPSS. Descriptive statistics are used to describe the tax return data; and a simple graphics analysis is added to explain the licensing experience (LE) variable compliance curve. The hypotheses are tested using multiple linear regression (MLR) and ANOVA analysis.

Although the data are about 8 to 10 years old, however, it is still relevant for explaining or predicting current business behaviour due to the following reasons: (i) there are no other database² available to support this research, that is to verify or cross-check the audited data for accuracy; (ii) quantitative data quality is good for generating reliable results; (iii) taxpayers are basically rational expected utility maximizers, thus their motivation to pay or evade tax is dependent on tax rate and maximum penalty rate which did not change much over the time - tax rate on services³ has been fixed at 6 percent from 2011 to 2020, and maximum failure-to-pay penalty rate has been fixed at 40 to 50 percent.

3.1. Explanation of data and variables

There are two types of data: direct type and interfaced data used in the study. The interfaced data are chosen to estimate the filing compliance function, depending on the type of model and the statistical methods used in the analysis. It is derived from multiplication and addition of two sets of data from reports and tax returns source. A new value for a specific variable is computed based on a common criterion, basis or a point of reference that have the same dimension (e.g., audit period) and according to the prescribed formula or calculation method. The computed variable is then

used in this research to overcome data analysis problem such as multicollinearity and homoscedasticity issues (Saw, 2016).

For this reason, the quantitative data used in the study are defined as follows. Data for the proportional taxable sales variable is computed based on a time period of twelve (12) months or 6 taxable periods, whereas data for the proportional penalty variable is calculated based on a time period of 36 months or 18 taxable periods relating to year 2010, 2011 and 2012.

In addition, data on the number of years a taxable person has been registered as a service tax licence holder (STLH) ranges from 1 to 21 years in relation to the database registration information in the CIS (Customs Information System) that was implemented in 1991. Hence, all prior STLHs are deemed as registered in the CIS in 1991 with the aim of ensuring a coherent approach for analysis of business TRFC variables and improving data quality and performance. Last of all, data on the dependent variable - tax return filing - is defined as the number of tax return submission for a time period of 36 months, ranging from 1 to 18 tax returns, during the audit work conducted in year 2012.

An initial log-transformation on two independent variables (IVs) (*i.e.*, proportional taxable sales and licensing experience) are performed to improve the normal distribution of these variables. Interval and ratio measurement with two computed variables are used in the MLR analysis, while ratio and ordinal variables are included in the ANOVA analysis. The levels of measurement and ranking of variables are as shown in Table I.

Table I
Level of measurement and ranking of variables

<i>Variable name (units)</i>	<i>Value</i>	<i>Scale type</i>	<i>Calculation method for data sample size N = 150 (cases with tax audit adjustment)</i>
1 Proportional Penalty (percentage)	Range from 0-1	Ratio	$\frac{\text{Penalty Amount}}{\text{Audit Period}} * 18 = \text{Pen_Prd (3 years)}$ Proportional Penalty = $\frac{\text{Pen_Prd (3 years)}}{1.5 * \text{Total Tax Paid for 3 years (2010-2012)}}$
2 Proportional Taxable Sales (RM)	Transform to Log 10. Range: 4.337-8.6277	Interval	$\frac{[\text{Claim Amount} * 6 \text{ (tax periods)}]}{[\text{Audit Period}]} * \frac{100}{6}$
3a Licensing Experience (years)	Transform to Log 10. Range from 0-1.33	Interval	1-21 years of experience For MLR analysis
3b Licensing Experience (years)	Range from 1- 7 level	Ordinal	Convert into 7 categories to compare means For ANOVA test
4 Tax Return Filing (number of tax return submission)	Range from 0-18	Ratio	Refers to 0-18 tax periods The dependent variable for statistical analysis

Using Daniel Soper's A-priori sample size calculator for MLR, the anticipated effect size is 0.80 (large) with 3 predictors when probability level is 0.01, power level is excellent (0.999) at a minimum required sample size of 55. It is thus highly possible to obtain the highest statistical power level in this MLR analysis.

3.2. Multiple regression analysis

The multiple regression analysis is first conducted to examine the influence of the three explanatory variables on tax return filing compliance. Both the independent and dependent variables are of interval and ratio scale respectively and all variables are normally distributed.

The research model⁴ consists of three (3) observed independent variable *i.e.*, proportional taxable sales (hereinafter referred to as 'taxable sales'), proportional penalty, and licensing experience. The dependent variable is tax return filing compliance (TRFC). Therefore, the hypothesis is constructed as follows:

H₁: There is a significant relationship between "Proportional penalty, Taxable sales, Licensing experience" and TRF compliance.

The multiple regression equation used is:

$$\text{TRFC} = b_0 + b_1 \text{Penalty} + b_2 \text{Tax sales} + b_3 \text{Lic experience}$$

Where b_1 , b_2 , and b_3 are the coefficients for each variable and b_0 is the constant.

3.3. Analysis of variance (ANOVA)

The second statistical method - ANOVA - is performed to test differences between groups in TR filing compliance behaviour. The licensing experience variable has been converted into a categorical or ranked, ordinal scale variable that works best for ANOVA analysis. The test result is then used to describe in more depth the relationship between licensing experience and TRF compliance. The second hypothesis is thus constructed as follows:

H₂: There is a significant difference among the licensing experience groups in TRF compliance.

The post-hoc Tukey HSD test is then performed to analyse the difference further.

3.4. Descriptive analysis

Statistical description provides useful summaries and helps to find patterns in the data, while inference helps to identify meaningful patterns and make

prediction. Hence, a table and a mean plot graph are presented to explain on the business firm's filing compliance tendency in terms of 'years of experience'.

4. RESULTS AND ANALYSIS

4.1. Descriptive analysis

Prior to the e-filing, tax returns for audits could be selected based on both the number of returns filed by the business firms and nil returns. To give a better understanding of this issue, descriptive statistics are used to analyse and interpret the data of two main variables.

Firstly, the tax return filing data reveal that 13.3% of the audited taxpayers with 'notice of deficiency' do not submit tax returns; however there are not much percentage differences among these audited taxpayers who have submitted 3 to 15 returns for the past three years prior to year 2012; whilst about 40% of them have submitted '16-18 returns'⁵. This infers that it would be of high priority to audit the taxpayers who have up-to-date tax return submission to authority, but at the same time, have filed nil tax returns even though business operations is ongoing or active. On the other hand, the reasons for irregular filing of returns may possibly be due to business closure, dormant company status, employee's negligence, or mere human errors, irrespective of whether the act of failure to pay was intentional or not. Generally, it is essential to highlight further some other important issues on filing non-compliance in planning an audit, so as to ensure that auditors can focus on areas of higher risk and perform their audits efficiently.

Secondly, the variable - licensing experience (LE) - refers to the number of years the taxpayer has been licensed as a service tax licence holder. Testing of null hypothesis in ANOVA requires the assumption of normality. According to Chua (2013), the distribution of data are normal for all categories or independent groups when both the skewness and kurtosis values are within the normal distribution range of -1.96 and +1.96. The test results in Table II show that the dependent variable TRFC is normally distributed in each independent group of licensing experience that is being compared.

Table II also shows the mean scores of the seven groups being compared. It is observed that '3 years or less' subgroup has the lowest mean score ($M=6.91$, $SD=7.37$) and 'more than 12-15 years' subgroup has the highest mean score ($M=13.73$, $SD=6.75$). The findings suggest that the companies with '3 years or less' licensing experience is the least compliant whereas

Table II
Licensing experience and Tax return filing compliance

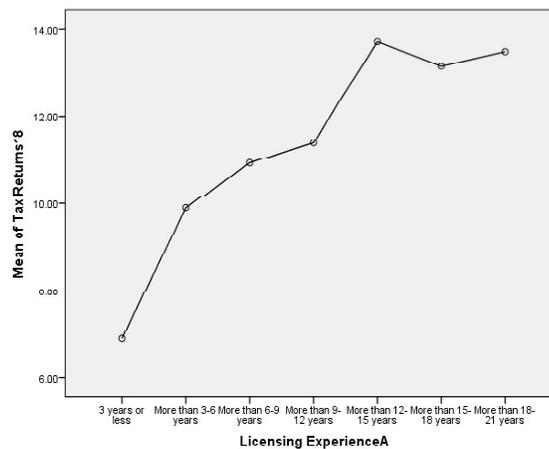
Licensing experience group	N	Mean	Std. deviation	Skewness	Kurtosis
3 years or less	22	6.91	7.37	0.61	-1.39
More than 3-6 years	51	9.90	6.64	-0.19	-1.31
More than 6-9 years	16	10.94	7.15	-0.24	-1.90
More than 9-12 years	30	11.40	6.46	-0.54	-1.26
More than 12-15 years	11	13.73	6.75	-1.15	-0.72
More than 15-18 years	6	13.17	7.11	-1.32	0.42
More than 18-21 years	14	13.50	6.76	-1.11	-0.55
Total	150	10.62	6.97	-0.29	-1.53

*Statistically significant at 0.05 level

the companies with 'more than 12-15 years' licensing experience is the most compliant among the seven LE subgroups.

Figure I represents the mean plot graph for Table II. It shows there is an increase in filing compliance with increasing number of years of licensing experience until it reaches the highest mean point corresponding to the 'more than 12-15 years' group. Subsequently, there is a slight decrease (0.56 mean points) in filing compliance for the 'more than 15-18 years' group, which is followed by a slight increase (0.33 mean points) in TRFC for the 'more than 18-21 years' group. Therefore, TRFC fluctuation begins when the licensed business firms have more than 15 years of experience, assuming equilibrium TRFC mean point will be reached after a few fluctuations in the mean (average) of tax return filing compliance.

Figure I: The Mean Plot (Licensing experience)



This infers that audits on newly registered service tax payers are equally important to monitor and enforce filing and tax compliance behaviour. Further to this, audits on highly experienced business taxpayers should focus on identifying areas of high deficiencies either due to tax avoidance or other high-risk factors relevant to the audit, so as to minimise revenue loss and curb tax evasion.

4.2. Multiple linear regression model

In this study, 'proportional sales' refers to the total undeclared or unreported taxable sales divided by the actual audit period and then multiply by 6 taxable periods that is equivalent to a one-year (12 months) period. Proportional penalty is the percentage of total penalty to total tax paid for a 3-year period. Testing of null hypothesis in regression analysis requires the assumption of linearity, normality, homoscedascity, multicollinearity and independence. If all these assumptions are satisfied for a given model, then the prediction yielded by a regression model is efficient and unbiased. Because of this, the data have been screened prior to regression analysis and none of the assumptions have been violated. The following summary table presents the results from a MLR analysis, with a sample of $n = 150$ business taxpayers.

Table III
Summary results from the regression analysis^a

Independent variables	Coefficient			<i>t</i>
	<i>b</i>	Std. Err.	β	
Prop. Penalty	8.825**	1.342	-0.438	6.576
Tax Sales	2.249**	0.584	0.257	3.854
Lic. Experience	5.038*	1.574	0.208	3.200
R square	0.407	F-statistic	33.433	
Adjusted R square	0.395	Sig. (F-stat)	0.000	
S.E. of the estimate	5.383	Durbin-Watson	2.139	

a. Dependent Variable: Tax return filing compliance

** $p < 0.001$, * $p < 0.01$

The results show that the variables: proportional penalty, taxable sales and licensing experience are significant predictors of tax return filing compliance where the value of $F(3, 146) = 33.433$, $p = 0.000$. This means the linear regression's F -test is highly significant and there is a linear relationship between the independent and dependent variables in our model. Therefore, the null hypothesis can be rejected. The relationship is specified with standardized coefficients as follows:

$$\text{TRFC} = 0 - 0.438(\text{Penalty}) + 0.257(\text{Tax Sales}) + 0.208(\text{Lic Experience})$$

Taxable sales and licensing experience were found to be significantly positively associated with tax return filing (TRF) compliance, whereas penalty is significantly negative.

The adjusted R square of the model is 0.395, and the R^2 is equal to 0.407; this means the linear regression explains 40.7 per cent of the variance in the data. Using Cohen's f^2 effect size measure for multiple regressions, the effect size for this MLR model is large (since it is higher than 0.35) and it is calculated as follows:

$$f^2 = \frac{R^2}{1 - R^2} = \frac{0.407}{1 - 0.407} = \frac{0.407}{0.593} = 0.686$$

where R^2 is the squared multiple correlation

The Durbin-Watson $d = 2.139$, which is between the two critical values of $1.5 < d < 2.5$ and therefore it is assumed that there is no linear auto-correction in the multiple linear regression data. The magnitude of the t statistics provides a mean to judge relative importance of the independent variable. In this case, proportional penalty ($t = -6.576$) is the most significant variable, followed by taxable sales ($t = 3.8254$) and licensing experience ($t = 3.200$).

4.3. One-way ANOVA (Licensing experience)

Table IV shows that the one-way ANOVA test (between licensing experience and TRFC) results is significant where the value of $F(6, 143) = 2.195, p=0.047$.

Table IV
Results of One-way ANOVA between Licensing experience and TRF compliance

	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Between Groups	610.36	6	101.73	2.195	0.047
Within Groups	6626.98	143	46.34		
Total	7237.34	149			

This means that there is a significant difference among the licensing experience groups in tax return filing compliance behaviour. To probe a little further, the post-hoc Tukey HSD test was performed; however, the homogeneous subset results show that the set of means appearing in Subset 1 comprises the 7 subgroups of licensing experience; this indicates all the 7 subgroups are not significantly different from each other (p-value is insignificant, $p=0.112$).

5. DISCUSSION AND CONCLUSION

In this paper, two theories are used to explain business tax return filing compliance. Ideal theory as established by John Rawls (1999) who believed in justice as fairness, "assumes strict or full compliance by all relevant agents in a well-ordered society under favourable circumstances". On the contrary, non-ideal theory corresponds to partial compliance where conditions are not as perfect as assumed in ideal theory. In a realistic situation, tax evasion, fraud, or non-compliance may occur due to partial compliance (especially on filing true returns and paying taxes correctly) by taxpayers (or agents) who are acting unfairly in an unjust society.

On the other hand, the Expected Utility Theory (EUT) "assumes that individuals may be risk-neutral, risk-averse or risk-seeking, who is motivated by utility maximization".

The Allingham-Sandmo model of tax evasion explained how much income the taxpayer would report and evade, based on four main economic factors: tax rate, audit probability, income, and penalty. If business firms seek profit-maximisation options to pay the minimum amount of tax *i.e.*, legally possible or pay less than the actual amount due when taxable sales and level of experience is high; then the motivation to comply with filing and payment requirements would be low and taxable sales declared would be lower. In contrast, firms may perceive that a certain tax avoidance practice would not provide the highest utility value or satisfaction and decide to pay the correct amount of taxes, when audit probability is high, penalty is high while tax rate remains the same; hence the motivation to comply with filing and payment requirements would be high. In addition, assuming the existing social and political 'circumstances or conditions' are perceived as additional risk (with diminishing marginal utility), then the taxpayer may comply fully with filing and payment requirements; thereby improving voluntary compliance and total tax revenue from indirect taxes.

The ANOVA test results show that there is a slight fluctuation in the mean scores, starting from the mean point of 'more than 15-18 years' of experience. Indeed, the more experienced taxpayers should be more compliant as they are relatively more knowledgeable about tax matters, tax audit requirements and penalties; have a better sense of moral obligation; more abiding to tax laws and regulations and financially more stable. However, a taxpayer's filing compliance behaviour may change and adjust over time due to several reasons such as changes in economic, political, legal, social, psychological, or financial conditions. When circumstances are highly favourable, the fluctuations in tax-return filing compliance may diminish and reach a self-fulfilling equilibrium level at a

favourable point of time. Supposing an equilibrium TRFC point will be reached after a few fluctuations in the mean scores, it is probably not the full or 100% compliance scores unless all ideal circumstances and conditions exist as stated in the Ideal Theory (Rawl, 1999).

To sum up, the results show that taxable sales and licensing experience (LE) are positively related to TRFC, whereas proportional penalty is significantly negative. There is a significant difference among the LE groups. On the whole, the findings of this paper indicate that business TRFC is likely to improve with higher penalties and longer tax experience. Some taxpayers who file returns regularly and 'on time' may fail to file accurate and correct taxable sales.

At the country level, tax authority may take the initiative to enhance taxpayer compliance through tax education, awareness or collaboration programmes by: (i) helping taxpayers to solve tax issues more effectively and at minimum cost; (ii) understanding taxpayer behaviour in response to existing tax system and collection procedures and recommending appropriate methods and procedures to resolve the mechanical, technical or operational issues; (iii) ensuring or enforcing true declaration of tax return and full payment of tax declared and payable; and lastly (iv) conducting low-cost research to resolve relevant, current or controversial tax issues.

Further research is suggested to establish a model with higher coefficient of variation for greater accuracy and wider analysis. Future research could analyse complex prediction model that can successfully improve audit outcomes and tax compliance. However, it may be too costly or not feasible for some countries to use big data analytics, predictive algorithms, or pattern recognition algorithms to detect fraud or to identify potential tax offenders, due to data privacy, infrastructure, or other pertinent issues.

Last but not least, in line with emerging trends in managing tax compliance risks, governments and authorities have started to develop audit policies that create sustainable taxpayer compliance, not just temporary compliance after the tax audit process. Continuous compliance, however, can only be seen a few years or more after the policies have been carried out.

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Notes

1. The supporting wise quotes on 'experience and knowledge' are as follows. The only source of knowledge is experience (Albert Einstein); experience is simply the name we give our mistakes (Oscar Wilde); be brave, take risks, nothing can substitute experience (Paulo Coelho); experience is the teacher of all things (Julius Caesar); it is costly wisdom that is bought by experience (Roger Ascham); and information's pretty thin stiff unless mixed with experience (Clarence Day).
2. The Customs Information System (CIS) was replaced by: (i) the myGST (TAP & GenTax) system with effect from 1 April 2015; and (ii) the mySST system with effect from 1 September 2018.
3. Service tax was first introduced on 1st March 1975. It is an ad valorem tax.
4. see Appendix I for legal notes on the variables.
5. Calculation for the number of returns submitted by those 'with less than 3 years old service tax licence' is based on a pro-rata basis. For example, if a company has been licensed for 2 years and has submitted 8 returns, then the pro-rata rate of returns submission for 3 years will be $8/2 * 3 = 12$ returns. This will fall under the '10-12 returns' category.

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APPENDIX I
Legal Notes on the Independent and Dependent Variables

a. Taxable sales

Under Section 14 of the Service Tax Act (STA) 1975, the service tax chargeable shall be due either at the time when payment is received for the taxable service provided to the customer by the taxable period or after a period of twelve calendar months from the date of the invoice for the taxable service provided. Therefore, the term 'taxable sales' refers to the value of sales that a business entity is required to charge and collect the service tax from customers and subsequently pay the correct service tax amount to the proper authority or tax agency.

b. Proportional penalty

Under section 16 of the STA 1975, penalty will be imposed for late payment of tax or late filing of a return. The penalty rate ranges from ten percent to a maximum of fifty percent of the tax due but unpaid by the due date of the return.

c. Licensing experience

Under section 8 of the STA 1975, every taxable person who carries on a business of providing taxable services is required to apply for a service tax licence to carry on such a business, when the registration threshold is reached. The term 'licensing experience' is related to the licence period or the 'period of 'years' from the effective date of the service tax licence.

d. Tax return filing – the dependent variable

Under section 12 of the STA 1975, every taxable person shall within 28 days after the end of each taxable period, submit a return in the prescribed form to the authority and declare the aggregate amount of the proceeds received during that taxable period.