Moderating Role of Personality Traits Between Tax Audit, Tax Rate, Tax Penalty and Sales Tax Compliance In Pakistan

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Abstract

The landscape of Finance in the modern day has become dynamic- with the introduction of behavioural finance, and the possibilities are endless. The study aims to demonstrate the impact of tax audits, tax rates, and tax penalties on sales tax compliance in light of personality traits. To this stage, the effect of personality traits and behavioural trends on sales tax compliance has not been explored thoroughly in Pakistan. In this study, 340 questionnaires were distributed through convenience sampling to the owners-managers of manufacturing and service sector representatives of SMEs operational in Faisalabad, Pakistan. After this, the data collected through the questionnaire were categorically analyzed using SPSS to validate the measurement model and structure. The findings demonstrated the direct positive relationship between tax audit, tax rates, tax penalty, and sales tax compliance. Further, the personality trends of neuroticism reflect a significant impact as a moderator towards tax-compliant behaviour. Policymakers may deploy these findings to enhance sales tax collection by making individualized systems catering to specific behaviours and personality traits to ensure maximum tax compliance. Tax administration authorities should deploy strict policies to deal with the non-compliant behaviour of taxpayers. It will help enhance the tax-to-GDP ratio of Pakistan and will generate more funds for public expenditures.

Keywords*: Sales tax, non-compliance, personality traits, deterrence tool (tax audit, tax rate, and tax penalty)*

Introduction

The sales tax amended ordinance 2019 is a compulsory law for people and businesses making a profit from their companies up to a certain level here in Pakistan. Taxation is the most significant source of generating capital for the government to carry out its activities (Ilzetzki & Lagakos, 2017). It impacts the fiscal policy of every country (Alshira & Jabbar, 2020; Khalil & Sidani, 2022). The taxpayer enjoys complete autonomy in declaring his assets and liabilities (Hassan, Naeem & Gulzar, 2021). It is estimated that tax rebelliousness has resulted in millions worth of losses in tax revenues and weighs heavily on existing taxpayers via illegal transactions (Wang, Xu, Sun, & Cullinan, 2020; Abdu & Adem, 2023). The tax rate is crucial in developing a tax compliance attitude and behaviour. The "Deterrence Theory" proposed by (Allingham & Sandmo, 1972) gave much weightage to the tax rate in the tax compliance system.

Tax Penalty is the likelihood that the concerned departments will extract the actual liability of taxpayers from their returns and charge fines for concealment of facts (Alshira et al., 2020). According to the World Bank Project Information Document (PID), presented in April 2019, the total number of sales tax registered persons in Pakistan is 220,042, and only 43,355 paid sales tax and filled their returns. Allingham and Sandmo (1972) empirically tested that tax fines and penalties have a significant positive relationship with tax compliance. Other studies also empirically proven that the penalty charges increase compliance (Murphy, 2005; Sinnasamy & Bidin, 2017). A tax audit is considered the most influential variable in enforced tax compliance (Harelimana, 2018; Akinadewo et al., 2023). It is defined as a regular inspection of financial records reported by the taxpayer in his tax return. The tax authorities examine taxpayers' financial records to ascertain their tax liability and compliance in the context of prevailing laws. The fundamental goal of such inspections is to preserve the faith of self-assessment schemes.

Personality is an individual's natural characteristics or proclivity that reflects his attitude and behaviour (McCrae & Costa, 1987). Namely, there are five big personality traits. The extrovert personality states that people usually have a vibrant approach toward community and family (Pervin, 1999). Humans are gregarious, convivial, and active (Alalehto, 2003). Agreeableness can be best described as a good-natured, genial, and loving personality (Pervin, 1999). People with a high agreeableness score were found to be condoling, thoughtful, concerned, and warm. Unlike them, disagreeable individuals display more cynical, critical, and supercilious

personalities. They are unenthusiastic and indignant and deploy aggression in every matter (Alalehto, 2003). Conscientiousness is warranted as an individual's propensity to follow the rules, policies, and laid down procedures (MaCrae et al., 1992). Conscientious persons manifest essential traits of effective organization, planning, and attention to kindness, responsibility, and ethical decision-making (Lu, Ge, & Qu, 2023). Conversely, less conscientious people show hedonistic behaviour and are less bothered by social and moral principles (Huels, 2017). Pervin best narrates openness to experience as "The depth, breadth, novelty, and convolution of human's intrinsic and experiential life." People who score high on this spectrum have strong imagination power, listen to their inner voice, and have curious minds. Such individuals are risk-takers and love challenges and complexities (Alderotti, Rapallini, & Traverso, 2023). Contrary to these, individuals are found to be conventional and conservative.

Contribution and Significance of the study

This study's contribution is to analyze the moderating role of personality traits between tax audits, tax rates, tax penalties, and sales tax compliance in Pakistan. Based on the Deterrence Theory, it has been proposed that the tax audit, tax penalty, and tax rate can significantly affect Pakistan's sales tax compliance behaviour. No study has been conducted in Pakistan regarding sales tax compliance and personality traits. Hence, this is another contribution to developing sales tax compliance in Pakistan. This study aims to determine the impact of deterrence tools, tax audits, tax rates, and tax compliance on sales tax compliance directly or via observing the moderating role of personality traits in Pakistan.

Literature Review

Theoretical Background

Following Becker's (1968) model of crime, Allinghom and Sandmo (1972) introduced the deterrence theory to observe tax evasion. The theory suggests that the higher use of deterrence tools is the best way to discourage the legitimate behaviour of taxpayers (Allingham & Sandmo, 1972; Muhwa & Omboi, 2023). The model has been adopted widely to deal with tax non-compliance behaviour in the context of only income tax payments, even in developed countries. Alshira et al. (2020) utilized a similar model to test the impact of deterrence tools in Jorden society in the context of sales tax compliance.

Hypotheses Development

Tax Audit and Sales Tax Compliance

The focus of this study is to observe specifically the sales tax compliance in Pakistan. Sales tax compliance is well-defined as compliance with all processes and principles, together with accurate recording of actual sales tax levied, paid, and recovered, well-timed payment of full sales tax dues, and accurate reporting of sales/revenue (Al-Rahamneh, Al Zobi, & Bidin, 2023). Tax audits are also used as a deterrence tool to influence taxpayers' intentions. Brewer, Saez, and Shephard (2010) empirically tested the behaviour of 40,000 taxpayers by using SKAT's Business Object Database. The finding suggests that income reported by the third part is subject to less involvement of evasion in comparison to self-reporting. Tax audits positively impact non-compliance behaviour in the context of excise duty surcharges (Akinadewo et al., 2023). On the contrary, many researchers have found a negative relationship between tax non-compliance behaviour and tax audits (Feld & Frey, 2007). Based on the discussion, we propose the following hypothesis

H_1: there is a significant relationship between tax audits and sales tax compliance in Pakistan.

Tax Rate and Sales Tax Compliance

The sales tax is an indirect tax deducted from the prices of goods and services imported or manufactured locally. The "Deterrence Theory" proposed by Allingham and Sandmo (1972) gave much weightage to the tax rate in the tax compliance system. A higher tax rate will force taxpayers to conceal their liability to avoid income tax payments (Meita & Nurdiniah, 2023). Munir and Sultan (2018) studied the relationship between tax rates and the economic growth of Pakistan in the short and long run. The direct tax positively impacts GDP in the long run, whereas the higher sales tax rates might cause a hike in GDP in the short run but harm a country's GDP in the long run. Some studies support a positive relationship between tax rate and compliance intention (Cobham et al., 2022).

H_2: Tax rate is significantly associated with sales tax compliance in Pakistan.

Tax Penalty and Sales Tax Compliance

The tax penalty is another tax structure deterrence tool (Wang, Cheng, Chen, & Yao, 2023). It is considered an effective but costly method to ensure tax compliance (Boddupalli & Maag, 2023). Alshira et al. (2020) defined it as a positive factor toward sales tax compliance in the SME sector. Major studies are conducted to observe the relationship between fines and compliance (Allingham

& Sandmo, 1972). Razak and Badin (2019) studied Malaysia's voluntary tax compliance concept by observing sole proprietorship businesses. According to her, the fear of tax audits and tax penalties reduces voluntary non-compliance in Malaysia. Kamal (2019) stated that the causes of tax evasion in Pakistan are tax morale, lack of satisfaction, and low penalty charges. However, there is limited research on the effect of tax penalties in the context of sales tax compliance, especially in developing countries (Shafi et al., 2023). Based on the above observations, we create a hypothesis to test the impact of tax penalties on sales tax compliance in Pakistan.

*H₃: A significant relationship exists between tax penalties and sales tax compliance in Pakistan.*

Moderating Role of Personality Traits

Personality has been observed as a critical factor in shaping individual behaviours. It has been studied as an essential antecedent in decision-making, investment behaviour, job performance, social media usage, and consumer brand choices (Manzoor et al., 2023). Although tax compliance behaviour has been studied over the last decades, and the antecedents of non-compliant behaviour and tax evasion have been discussed along with multiple variables like tax morale, professional conduct, risk propensity, customs, and subjective norms (Owusu, Bart, koomson, & Arthur, 2021) but less attention has been paid towards personality traits. The five-factor model has been applied by Owusu et al. (2021) to establish the relationship between personality traits and tax evasion intentions. People with high scores on agreeableness are compliant taxpayers (Owusu et al., 2021). Their sympathetic behaviour makes them conscious about making total payments as they are concerned about the need and use of money collected in taxes (Turner, 2014).

Individuals with higher scores on the openness to experience scale were suggested to account for higher white-collar crimes than conventional and conservative individuals. In line with these iterations of taxpayer compliance, a person who is morally sound and has a strong sense of ethical decision-making is considered a tax-compliant citizen. In contrast, people with low scores in openness to experience are more prone to non-compliant attitudes and intentions (Turner, 2014). The behaviour of such people who have an active imagination and a higher curiosity is also found to endorse the electronic filing system of tax returns (Santhanamery & Ramayah, 2015). Based on these discussions, the hypothesis is developed as:

H₄: the personality traits moderate the relationship between tax audit, tax penalty, tax rate, and sales tax compliance in Pakistan.

Figure 1
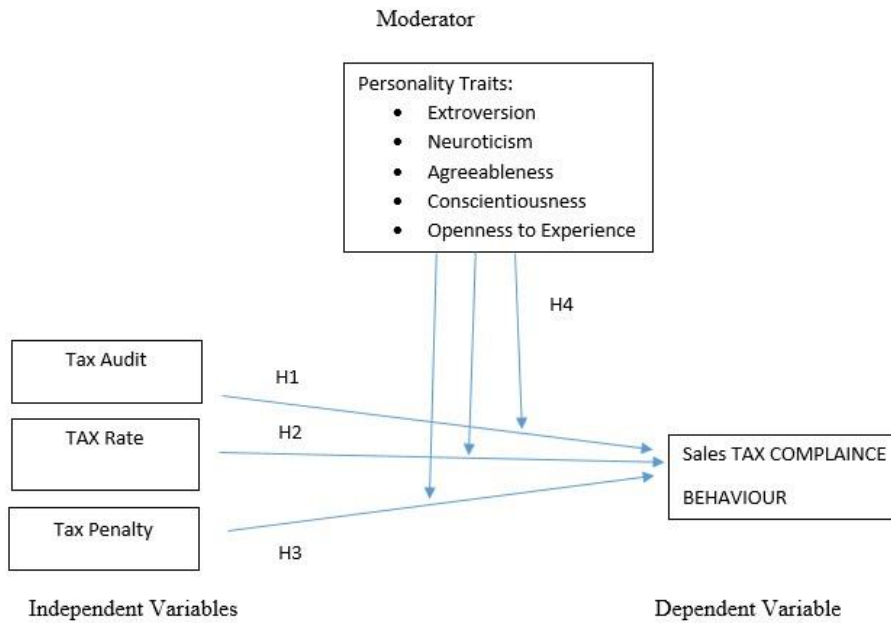
Research Methodology

Target Population and Sample Size

The respondents of this study are the small and medium enterprises of Faisalabad, Pakistan. The SME sector of Pakistan is enormously productive and deliberated as a catalyst for economic development and prosperity (Mahar, Malik, Qadir, Ahmad, & Khan, 2007). "SMEs account for 99 percent of over 3.2 million business initiatives in Pakistan and have a 35 percent share in value addition. This study has a sample-to-item ratio of ten respondents against one item (Heir, Hult, Ringle, & Sarstedt, 2014). A total of 31 articles were recorded, resulting in a minimum of 310 respondents.

Data Collection

This study is conducted at an organizational level, which owners and managers represent. They are responsible for making financial decisions and play a substantial role in tax decisions. The questionnaire consists of two languages, Urdu and English, to get the maximum correct responses and avoid bias. For this purpose, an Urdu-based items survey form was drafted to run a pilot survey. Two experts in Urdu languages evaluated the language of the questionnaire, two experts from the FBR department, and three managers from the SME sector evaluated each item.

This pilot testing evaluated the usefulness and appropriateness of each item for the research purpose. It ensures each construct's internal capacity and reliability rather than sufficient representation for each research question. The group suggested language change for TR2 and 3, ST5 and ST9. The suggestions were implemented, and errors were rectified. The survey was piloted until the team of experts suggested no further changes. The final version of the questionnaire was distributed for response collection.

The data was collected from 340 respondents using a 10 to 1 ratio (Heir et al., 2014). 135 responses are received from Google-based e-forms, whereas 205 forms are collected by meeting the respondent physically. Of these 205 forms, the respondents did not return 40, and 11 were partially filled; hence, they were not included in the statistical analysis. The final sample size was 289 responses. These 289 responses were further utilized for testing in SPSS.

Table 1

Breakdown of Sample Size

Particulars	No of Questionnaire Distributed
Forms Distributed through wts app numbers	135
Forms handed over through face to face meetings	205
Forms received through wts app number	135
Forms not included for analysis	51
Survey questionnaire recorded in SPSS	289

Measurement

All variables are adopted from previous literature. Fariday et al. (2014) assumed the three items for a tax audit. Christensen et al. (1994) adopted the three tax rate items. A similar scale has been utilized by Alshira et al. (2020) to observe the impact of tax rates on sales tax compliance in Jordan. The tax penalty comprises four items adapted from Braithwaite et al. (2001). Alshira et al. (2020) studied the similar effects of a tax rate, tax audit, and tax penalty for Jordanian taxpayers. Further, eleven measurement items for sales tax compliance are adopted from Woodward & Tan (2015). The items for personality traits are adopted from Gosling & Rentfrow (2003).

Demographic Variable

Table 2 shows the percentage of demographic characteristics such as age, business and gender of the respondents. 30.5 percent (highest) were 26-30 years. Business experience of fewer than five years is 35 percent. There are 66.8 percent male participants and 33.2 percent female participants reported. The data collected reflect that more young people of the age group 26-30 years are dealing with tax matters instead as an owner of the managers' business. They usually have business experience of less than ten years on average. The Pakistani Industry is more male-dominated; hence, there are more male respondents than female. It also reflects that businesses prefer hiring a male tax advisor over a females.

Table 2
Demographic Characteristics as a Percentage of the Sample (N=289)

Serial #	Demographic Variables	Categories	N	Percentage
1.	Age	20-25	70	24.5
		26-30	89	30.5
		31-35	67	23.2
		36-40	30	10.4
		41 and above	33	11.4
2.	Business	less than 5	101	34.9
		6-10	85	29.6
		11-15	60	20.8
		16-20	24	8.3
		20 and above	19	6.6
3.	Gender	Male	193	66.8
		Female	96	33.2

Statistical and Sampling Technique

We use the process macro analysis method in SPSS to assess the model's validity. The reason for selecting this software is that it is easy to use. The relationship among variables is measured through correlation, and the effect is tested by running a regression analysis in SPSS. The convenience sampling technique is used to collect a sample from 340 respondents representing 340 organizations in Faisalabad, Pakistan. The reason for using this technique is to conveniently

access the maximum number of people from a sample population at a specific point in time (Cheng & Dornyei, 2007).

Regression Analysis

Regression analysis has been done with different sets of variables. It discusses how the value of Y dependent variable changes along with the change in independent variables x. The higher value will reflect the strength of the relationship and is always desirable (Cohen et al., 2013). Initially, the predictive power of only lagged returns has been assessed towards tax audit, tax rate, tax penalty and sales tax compliance.

Table 3 describes the direct relationship between tax audits, tax rates, tax penalties and sales tax compliance in Pakistan. The values of R define the direct relationship between tax audit and sales tax compliance in Pakistan. The coefficient value of tax audit elaborates on the positive association between tax audit and sales tax compliance. Whenever the Govt authorities conduct higher tax audits, the taxpayer's compliance toward sales tax payments will increase. The value of R2 elaborates the fraction of variance in sales tax compliance due to independent variable tax audit. The table accepts the relationship between tax audit and sales tax compliance. The previous researcher has conducted similar studies. According to Biber (2010) the, efficient tax audit programs will encourage taxpayers to report their liabilities accurately.

Further, table 3 describes the relationship between tax rate and sales tax compliance in Pakistan. The R-value of 0.50 defines a direct association between tax rate and tax sales tax compliance. The coefficient value defines a positive link between tax audits and sales tax compliance in Pakistan. Whenever there are positive tax rate trends measured, the sales tax compliance will appreciate in Pakistan. The sig value is statistically found significant, which supports the hypothesis empirically. The Hypothesis H2 is accepted. It has been empirically tested and proved that tax rates impact sales tax compliance in Pakistan, hence considered an important tool to measure compliance in Pakistani society. Another recent study by Hassan et al. (2021) reflected a positive relationship between tax rate and voluntary tax compliance behaviour in Pakistan. Some other studies support a positive relationship between tax rate and tax compliance intention.

The third hypothesis describes the relationship between tax penalty and sales tax compliance. The research assumes taxpayers calculate their tax liabilities more accurately whenever a higher surcharge is charged. The results empirically support the claim of the research model. The value

of R defines that there will be a 56% relationship between tax penalties and sales tax compliance in Pakistan. The sig value statistically proves the relationship as accepted. The coefficient value confirms a positive association between tax penalties and sales tax compliance in Pakistan. The sales tax surcharges improve the compliance of Pakistani taxpayers. As per Kamal (2019), the causes of tax evasion in Pakistan are tax morale, lack of satisfaction with Govt policies and large taxpayers, and low penalty charges. The study conducted by Alshira et al. (2020) also empirically proved the vital role of tax penalties in developing a sales tax-compliant society in Jorden.

Table 3
Regression between Tax Audit, Tax Rate, Tax Penalty and Sales Tax Compliance

Model	R	R^2	Coefficient	Sig	Accept/Reject
TA→ SC	0.50	0.25	0.42	.000	Accept
TR→ SC	0.50	0.25	0.32	.000	Accept
TP→ SC	0.56	0.256	0.44	.000	Accept

Moderation Results

The model proposes that the personality traits of taxpayers moderate the relationship between tax audits, tax rates, tax penalties and sales tax compliance in Pakistan. The model is tested using the Process Macro (Preacher & Hayes, 2008; Hayes, 2017). The significance level of path variables is measured through the bootstrapping function with 5000 re-samples.

Table 4
Moderation Effect of Personality Traits

Effect	Coefficient	P	LLCI	ULCI
TA→ SC	.7359	.0000	.4943	.9774
PT→ TA	.8019	.0000	.5296	1.0743
TA*PT	.1316	.0001	.1987	.0646
TR→ SC	.4651	.0004	.2085	.7218
PT→ TR	.9182	.0000	.6558	1.1807
TR*PT	.0864	.0148	.1558	.0170
TP→SC	.6278	.0000	.3444	.9112
PT→TP	.9453	.0000	.6638	1.2268
PT*TP	.1061	.0063	.1820	.0302

TA=Tax Audit, SC= Sales tax compliance, PT=Personality Traits, TR=Tax rate, TP=Tax Penalty

International Journal of Social Science and Entrepreneurship (IJSSE)
ISSN (Online): 2790-7716 , ISSN (Print): 2790-7724

Vol 3 , Issue 3
July to September 2023

Figure 2

Moderating Role of Personality Traits Neuroticism between Tax Audit and sales Tax
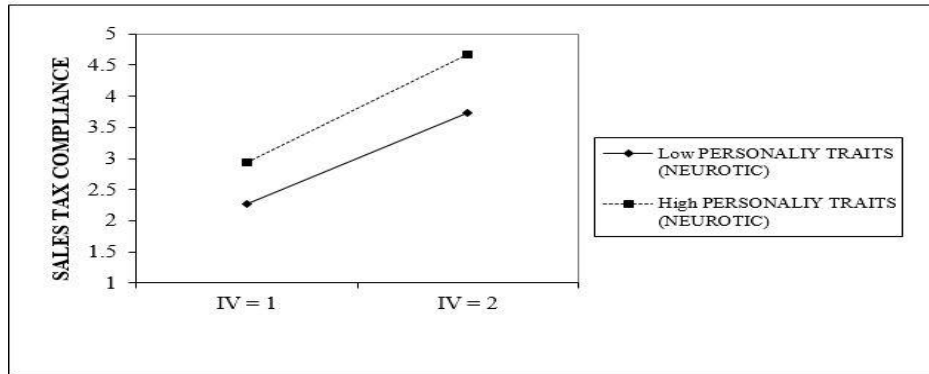

Figure 2: *Moderating Role of Personality Traits Neuroticism between Tax Audit and Sales Tax Compliance*

Table 4 and Figure 2 predict the moderating effect of personality traits between tax audit and sales tax compliance. Hypothesis H4 predicts that the personality traits of taxpayers moderate the relationship between tax audit and sales tax compliance. The results of Table 4 support the hypothesis (coeff = 0.131, $p < 0.05$). The results are found to be significant for the neurotic type of personality only. The results for other personality traits were insignificant. The findings align with previous research (Ishfaq, Nazir, Qamar, & Usman, 2020). The upper and lower limits are also in range, and the index value is less than 5 percent. A significant relationship exists between tax audits and sales tax compliance in Pakistan. The interaction between personality neuroticism and tax audit further improves the relationship between tax audit and sales tax compliance.
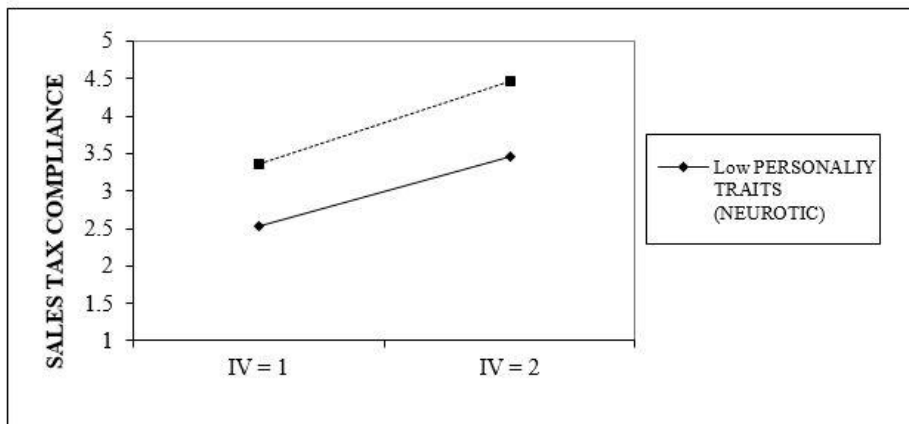
Figure 3

Figure 3: *Moderating Role of Personality Traits Neuroticism between Tax Rate and Sales Tax Compliance*

Regarding the moderating role of Tax rates, Table 4 and Figure 3 describe the results of the interaction between tax rates and personality traits. Hypothesis 4 is supported and in line with previous studies. The impact of personality traits and type neuroticism is found to be supported only. The other types of characteristics do not support the model and are hence not considered significant moderators. In his research, Ishfaq et al. (2020) observed similar findings to observe the moderating role of personality traits on cognitive bias and investor behaviour. The tax rates significantly impact sales tax compliance in Pakistan, but the personality of taxpayers significantly improves the relationship between tax rates and sales tax compliance. The results of Table 4 support the hypothesis (coeff = 0.086, $p < 0.05$). The upper and lower limits are also in range, and the index value is less than 5 percent.
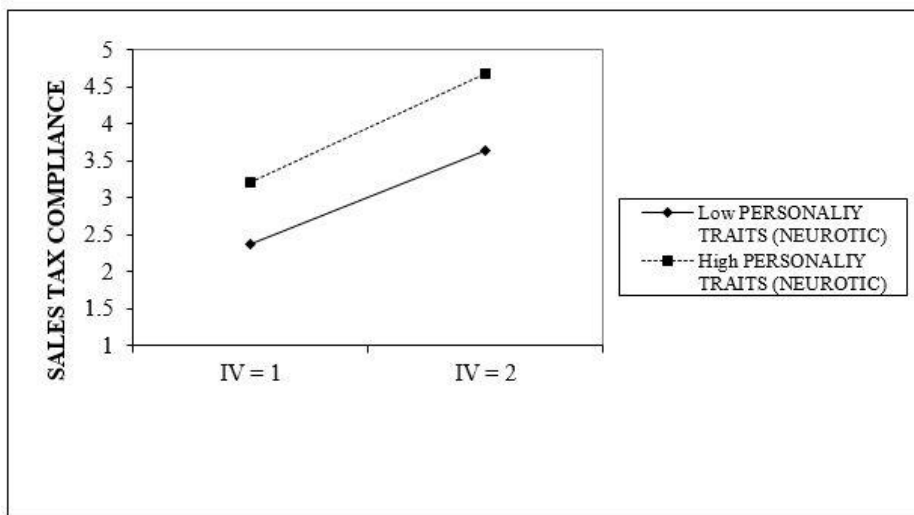
Figure 4

Figure 4: *Moderating Role of Personality Traits Neuroticism between Tax Penalty and Sales Tax Compliance*

Table 4 and Figure 4 elaborate on the moderating role of personality traits between tax penalties and sales tax compliance. The tax penalties significantly positively impact sales tax compliance in Pakistan. The personality traits, precisely the neurotic personality of taxpayers, significantly moderate the relationship between tax penalty and sales tax compliance. The results of Table 4.9 support the hypothesis (coeff = 0.106, $p < 0.05$). The upper and lower limits are also in range, and the index value is less than 5 percent. Compliance with taxation laws is the biggest challenge ever for developed economies. An informal economy in developing countries like Pakistan is worsening the economic conditions. The COVID-19 pandemic has even placed developing

economies in terrible financial positions, resulting in lesser budgetary support from developed economies. Hence, there is a need to focus on new ways to generate more revenue from tax collection. The behaviour of taxpayers is considered uncertain towards voluntary compliance with tax laws (Hassan et al., 2021). Individuals consider paying taxes a "tax price" of public services (Feld, Kirchgassner, & Schaltegger 2010). This argument reflects that the personality and behaviour of taxpayers are essential indicators of sales tax compliance.

Conclusion and Recommendations

Tax compliance plays a vital role in developing and implementing fiscal policy. Past research has empirically tested the factors affecting sales tax compliance in Pakistan to bring efficiency to the tax collection system and reduce non-compliance culture and practices. This paper further elaborates on the role of the tax audit, tax rate, and tax penalty in achieving sales tax compliance in Pakistan. This study examines the direct and indirect relationship between sales tax compliance and tax audit, tax rate, and tax penalty via the personality traits of taxpayers in Pakistan. Because few studies are conducted in the context of Pakistani society, the current paper can be considered a pioneer study to test this association in Pakistan.

The first hypothesis of this study is to explore the relationship between tax audit and sales tax compliance. The purpose of a tax audit is to promote the sales tax collection and ensure businesses' future compliance. The findings of this research demonstrate that the tax audit improves sales tax compliance in Pakistan. The finding aligns with previous research that reports a significant role of tax audits in sales tax compliance (Alshira et al., 2020; Akinadewo et al., 2023). A possible interpretation of such increased compliance is managers' and owners' cost-benefit analysis of sales tax evasion and tax audit. Fear of being caught and charged with fines compels taxpayers to show full compliance with tax laws (Forest & Sheffrin, 2002). The findings of the study provide valuable information for policymakers to emphasize more on sales tax audits to enhance revenue.

The study's second hypothesis is to test the impact of the tax rates on sales tax compliance. The study shows the significant impact of deterrence tools on Pakistan's sales tax compliance, as Allingham et al. (1972) described. A moderate tax rate could promote a compliant culture in Pakistan. The results align with previous research (Giesecke & Tran, 2012; Mathews, 2003). A justifiable interpretation of these results could be the post-COVID-19 period, where the small

businesses deregistered themselves or hide their sales due to increased tax rates. Businesses usually collect sales tax on behalf of customers and claim it in their returns, but FBR's delayed sales tax refund policies enhance sales tax evasion. The findings suggest that policymakers set more economical rates for all kinds and natures of businesses and increase the tax base to ensure higher sales tax compliance in Pakistan.

The third hypothesis proposed that tax penalties significantly and dramatically impact sales tax compliance in Pakistan. It appears in the form of enormous fines for concealment of facts. The results align with previous research (Alshira et al., 2020; Woodward et al., 2015). Penalties are charged if the return is not timely filed or understates the actual sales and economic activity. Policymakers can utilize this tool to enhance the tax system's efficiency and generate more funds to support public expenditures.

The fourth hypothesis proposed that the personality of taxpayers can affect the relationship between tax audits, tax rates, tax penalties and sales tax compliance. The results empirically support the claim specifically for neurotic people. Neurotic people are considered risk-averse. They are more compliant as they do not like making risky decisions (Nicolson, Burr, & Powell, 2005). Such people have less intention for tax evasion (Owusu et al., 2021). People with such personalities will behave more positively towards tax audits, rates, and penalties. Policymakers should consider personality traits as an essential factor influencing compliance behaviour. This could help them in developing better policies. The more authorities will understand the underlying causes of non-compliance, the better they can act. This study also faces limitations widely associated with social research. While collecting data from taxpayers and interpreting the same, measuring sales tax compliance is difficult as the participants' intentions may vary from their behaviour (Turner, 2014). It is always called a value action gap. In the future, the researchers could investigate the relationship between sales tax compliance intentions and sales tax compliance behaviour.

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