

Impact of Tax Knowledge, Tax System Complexity and Tax Fairness Perception on Compliance Behavior of a Taxpayer in KPK

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ABSTRACT

Keywords:

Tax knowledge, tax system complexity, tax fairness perception, tax compliance behavior.

This study encompasses and aims to find the impact of tax-related knowledge, the system complexity, and tax fair perception in shaping the tax compliance behavior of taxpayers residing in Khyber Pakhtunkhwa, Peshawar, Pakistan. The theoretical framework for the study was constructed based on distributive justice theory and the theory of planned behavior. A deductive approach was adopted, and a structured questionnaire was designed and adapted for tax-payers, the survey was done based on this questionnaire to investigate the hypothesis of the study. To make an inference, ordinal regression was run to see the significance of tax knowledge, tax system complexity, and fairness perception in shaping the compliance behavior of tax-payers. The results suggested that tax compliance behavior relies on tax knowledge, tax system complexity, and tax-fairness perception of a taxpayer and all these factors play a vital role in molding the compliance behavior of a taxpayer. The results imply that to attain a more compliant tax system, initiatives should be taken to enhance the tax knowledge of taxpayers and to reduce the tax system complexity that prevails in the system, these initiatives seem to enhance a positive perception of taxpayers regarding tax system and would ultimately help the system attain a more compliant environment. The study also depicted that despite the difference among tax-payers based on their demographics; in terms of age, income, gender, and experience, all the tax-payers respond similarly when it comes to meeting their tax obligations and none of these demographic traits seem to distinguish taxpayers from one another.

INTRODUCTION

Where some see tax as a punishment and some as a duty and responsibility levied on the rich to take care of or compensate the underprivileged section of society. It cannot be denied that taxation is vital to the country's economic development because it allows the government to

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realize its goals of defense, education, justice, and social welfare for its citizens. Taxation also allows the government to reduce its reliance on foreign sources of income and to boost its domestic sector by taxing imports. Taxation is extremely important in countries such as Pakistan, where it accounts for more than 90% of income generation (Awan & Hannan, 2014).

Reflecting on the conditions that surround us, where the rich see tax as a punishment and the poor see tax as a responsibility of the privileged to care for the underprivileged, the researcher's interest emerged in not just knowing but researching and allowing others to benefit from the study on the theme of tax compliance behavior in the context of tax-fairness, tax system complexity, and tax-knowledge. As the researcher's interest in the matter grew, the working of the study came across some publications that attributed the huge discrepancy in individuals' perceptions of tax to a lack of professional education in a sector that left citizens with a negative picture of tax.

Tax-payers' tax knowledge is critical to their tax compliance. As an outcome, the level of tax education and tax awareness is critical to confirm that the tax revenues and accumulation system along with the provision of services runs smoothly. As a result, taxpayers would be able to appropriately assess their duty and obligation and would file well-timed tax returns. Overall, taxes are the main resource of revenue for the country's progress. Contrary to prior discussed argument, if tax knowledge is not sufficient the taxpayer would find the system difficult (Gangl, Kirchler, Lorenz, & Torgler, 2015). As a result, the government will face significant challenges in dealing with tax arrears, tax assessments, and other tax administration issues (Palil et al., 2013).

As the study aims to grasp an insight into the observation of tax fairness and compliance conduct, there isn't satisfactory rich data or previous research done in this area; this rationale of lack of sufficient data to comprehend a decision, led the researcher to choose and work on this area in research so that it may add a value addition when it comes to innovation and so that it could decrease the existing knowledge gap. Low level of relevance to our context (since tax systems and policies vary from country to country, province to province, and federal to province), such that our policymakers might take it as input when developing policy-related knowledge, tax perception, or target awareness. Tax compliance is evaluated using numerous contributing characteristics such as religiosity, and income, here This study aims to analyze and explore the perspective about tax compliance in the context of positive or negative fairness perception.

Significance & Novelty

The studies conducted in the past on the concerned topic provide a very narrow spectrum i.e. trust of the public in government and government communicating to taxpayers (M. R. Cyan et al., 2016), ethical practices, attitudes, and behaviors of taxpayers along with moral standards and religiosity prevailing in the society (Palil et al., 2013) as a context of complexity in the system, fairness perception, and knowledge of taxpayers in Pakistan. Although all the pieces of evidence suggest the perception to be adequately negative and tax taken rather as a burden than responsibility (Azmi & Permural., 2008) updated work is needed to be done in this area.

The study's findings are anticipated to give an update on tax-payers' perception of fairness & and compliance behavior. For instance, data for the present level of perceived justice among tax-payers (M. S. Malik & Younus, 2019), especially on the characteristics that demand consideration from tax authorities, may aid in the improvement of tax systems.

While the findings from the previous study in terms of tax knowledge and system perception (Gangl, et al., 2015) could still be applicable. The outcomes from the current investigation, which expands the aspects of fairness, would give an essential renovation to the existing literature. The study's results should aid policymakers, particularly tax authorities, in examining and, if required, altering present tax systems to upsurge voluntary tax compliance.

Objectives

The problem statement sets the background for the objectives of the study, and as we have now adhered to the contextualization and relevance of the problem, emphasizing its significance, we can formulate the objectives for this study. In general, the purpose of this research is to better understand how tax-payers perceive tax fairness in Pakistan, and how this perception shapes their compliance behavior.

The specific objectives of the study are as:

- The first is to see the impact of tax system knowledge in shaping the tax-fairness perception or perception of justice.
- To find how the tax system's complexity impacts the tax fairness perception or perception of justice.
- The next goal is to investigate the role of tax-payers fairness perception in their compliance behavior.

The objectives of research shaped the research questions as:

| Research Objectives | Research Questions |
|--|---|
| To find the impact of tax system knowledge in shaping the tax-fairness perception or perception of justice | Does knowledge of the income tax system influence taxpayers' fairness perceptions? |
| How does the tax system complexity impact the tax fairness perception or perception of justice? | Does the complexity of the income tax system influence taxpayers' fairness perceptions? |
| To investigate the role of tax-payers sense of justice in their compliance behavior | Does tax fairness perception or perception of justice influence the compliance behavior of individual tax-payers? |

Tax-Knowledge and Tax System Complexity

Tax knowledge could be defined as an individual's understanding of regulations, laws, and liabilities that exist in the tax system for a taxpayer (Keuangan & Palil, 2005). Tax knowledge is a required constituent of a consensual compliance tax system, especially in calculating an exact tax liability (Bhutta et al, 2019). There is suggestive evidence indicating there is a significant positive association between tax knowledge and tax compliance (Saad, 2012), and an enhanced and well-informed taxpayer is likely to display well-compliant behavior in the tax system. The mediums by which this tax knowledge can be enhanced are multiple and the impact and resonance of each medium differs significantly. Nevertheless, the means of transmitting this knowledge with the greatest and most audible impact must also be considered. Whereas some may consider television advertisements to be more effective in reaching a larger audience, empirical research reveals that the effect of a newspaper advertisement is stronger than the effect of a television advertisement. (Aktaş Güzel et al., 2019).

In terms of knowledge transmission, tax-payers lack procedural knowledge and perceive the tax system to be difficult. Tax knowledge and tax system complexity are seen as contributing reasons to taxpayer non-compliance (Saad & Natra, 2014). Where knowledge is seen as directly contributing to compliance behavior, tax compliance is seen as an inverse factor in shaping the compliance of taxpayers (Gambo et al., 2014) but the complexity of a system could be because of an individual's lack of system knowledge and literacy, cultural factors, and professional enforcement practices. Simplification of the tax system on the one hand can bring efficiency in the system and can increase the compliance behavior displayed by the taxpayers.

Informing individuals about their genuine income distribution position increases encourages tax progressively. The provision of suitable services can improve tax-payers understanding of their rights and reduce their views of corruption, increasing the possibility of them submitting a tax return (Gangl, et al., 2015a)

A well-informed citizen and a taxpayer with good tax knowledge would have a good understanding of his obligations towards the system but would also be well-informed of what benefits and privileges could be availed and what penalties could be avoided.

Tax -Fairness Perception

Fairness perception is generically the equity of the system being perceived just or positively. Fairness Perception is a difficult concept to debate and understand because everyone has their own understanding and thus their perception of fairness and unfairness in the system. While a person's circumstances influence perception, it is impossible for an individual taxpayer to fully comprehend the tax system and method. Even though some people pay taxes, they are unaware of the tax system and their tax obligations. (Farrar et al., 2020) According to research, most taxpayers do not believe that the tax system in Pakistan is unfair and that most of the tax revenue is spent on needless projects/things (Farrar et al., 2020).

Similar perception arguments can be found in literature where fairness perception is linked to certain conditions. Justice is a product of the comparisons considered relevant to the individual formulating their fairness perception, not only in the context of text but also in organizations where fairness is essential to corporate behavior (Farrar et al., 2020). In the research on improving tax compliance, it is suggested and observed that taxpayer compliance may be enhanced by enhancing tax-payers' positive attitudes regarding the emotional costs of the complexity of the tax system (Hassan et al., 2021)

Tax compliance and tax fairness have a direct relation (Juhi, 2011). Their disobedience conduct is unrelated to their negative perceptions (Saad, 2012.). It was also discovered that clusters with lesser labor force contribution roles in Pakistan have higher optimistic attitudes toward tax compliance (Rasool et al., 2016). Individual education does play a key role in shaping fairness perception because education establishes morals and morals establish standards for fairness perception.

Tax Compliance Behavior

Tax compliance is frequently referred to be a behavior caused by the interaction of several psychological elements. Tax compliance intention displays the complete mediation of subjective standards, perceived behavioral control, attitude, and Control of the system, and

tax fulfillment behavior (M. S. Malik & Younus, 2019) Therefore a person with good conduct behavior is more likely to be compliant, as studies show a large positive association between attitudes towards behavior and tax compliance behavior (Bhutta et al., 2019).

Because shame and moral repercussions are associated with tax compliance, the relationship between moral behaviors, perception, and compliance was weak (Kamal, 2019b), Tax justice perception has a favorable association with tax compliance, while trust in government has no arguably meaningful connection with tax compliance. According to this finding, a sense of tax justice fully mediates the association between faith in administration and tax compliance (Aktaş Güzel et al., 2019). For Pakistan, compliance intent fully indicates the association between attitude and voluntary tax compliance behavior (Hassan et al., 2021). The literature has revealed evidence indicating that taxpayers' perceptions regarding the use of tax money have an essential impact on their tax compliance behavior (Kamal, 2019b).

Tax education enhances your tax knowledge this enhanced tax knowledge is an encouraging factor for a positive perception of the income tax system and this fairness perception leads to compliant behavior from the taxpayer (Mukhlis et al., 2015). Based on these findings, boosting tax education is critical in developing tax understanding and increasing tax compliance (Mukhlis et al., 2015).

Relevant Theories

A gist of relevant theories contextually relevant in social sciences and behavioral studies are discussed here, these theories are duly related to tax fairness perception and compliance behavior and are enlightened which includes Distributive Justice Theory (DJT) and Theory of Planned Behavior (TPB).

Distributive Justice Theory (DJT)

The Distributive Justice Theory (DJT) states that individuals judge equity not only by assessing their needs but also as what comes as a comparison with its reference group and based on this the dealing is either termed equitable or inequitable Lamm, H., & Schwinger, T. (1980). Relative equality in theory is representative of the equity principle; where individuals tend to judge a dealing by how a certain act benefits them in their terms as translated by their tax money, or as the monetary or subsidized benefits received by them because of money that they pay in taxes. Objective equality in theory is representative of the equality principle which suggests that individuals weigh the equity not only in assessing their benefits by also by comparing the benefits with their reference groups. The subjective equality, in theory, is representative of the needs principle that suggests that allocation for individuals should be

based on the needs of the individual Leventhal, G. S. (1976) so individuals with less contribution but more needs would be allotted more benefits as compared to those who contribute more in context of tax revenue.

Theory of Planned Behavior (TPB)

The theory of planned behavior is the relevant theory in understanding and tracing the behavior or rather compliance behavior of taxpayers. The main construct in this theory to measure behavior is the perceived behavioral control Kraft et al., (2005). This theory advocates that compliance behavior is impacted by the perceived behavioral control and is impacted by the level of ease o difficulty perceived in that task.

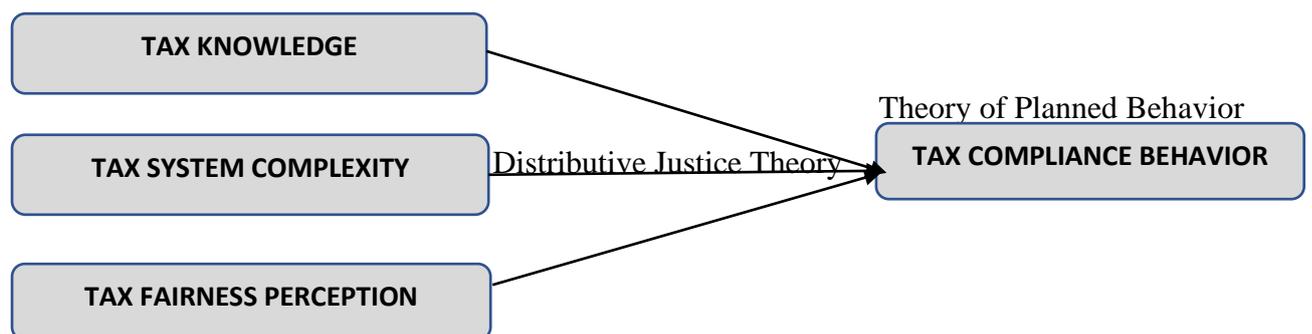
Thus, a task if perceived as easy by the taxpayer would have a compliance rate higher than that of a liability which is perceived as difficult in terms of attainment.

The studies conducted so far on tax compliance behavior suggests that a positive fairness perception would result in complaint behavior, but some empirical results suggest otherwise, the difference could be because of the different aspect being taken for measuring the constructs.

Theoretical Framework

The literature accumulated so far for the study hints that tax knowledge, tax system complexity, and tax fairness perception play a vital role in shaping the compliance behavior of taxpayer citizen in a country. The theoretical framework that emerged after studying literature is reflected below in this section.

The theoretical framework is provided as:



Source: Author Developed

Hypothesis

Following the direction of literature in extending the framework it was suggested that there exists a significant relation between tax knowledge and tax-fairness perception. Though the

emphasis has been on economic measures as guarantors of taxpayer compliance, behavioral variables are also recognized to favorably influence. (Mwesiga, 2015).

Tax compliance of an individual can be increased, if the tax-payers perceive the system as fair, this fairness perception can be achieved if taxpayers have sufficient knowledge, so tax-knowledge turns out to be the most decisive factor in shaping the compliance behavior of a taxpayer. (“International Journal of Financial Research - sciedu.ca”) Based on these findings, boosting tax education is critical in developing tax understanding and increasing tax compliance (Mukhlis et al., 2015).

Thus, our aim for the study is to see whether there exists a significant relation between tax knowledge, complexity, fairness perception, and compliance behavior of a taxpayer.

The hypothesis thus constructed for the study are as:

| Research Objectives | Research Hypothesis |
|---|---|
| To find the impact of tax system knowledge in shaping the tax-fairness perception or perception of justice. | H1: Knowledge of the income tax system significantly influences the tax-payer's fairness perceptions. |
| How does the tax system complexity impact the tax fairness perception or perception of justice? | H2: The complexity of the income tax system significantly influences tax-payers' fairness perceptions |
| To investigate the role of tax-payers sense of justice in their compliance behavior | H3: Fairness perceptions of the income tax system by tax-payers significantly influence their tax compliance behavior. |

As a result, the research intended to focus on how tax knowledge and tax system complexity (complexity in the system to be understood) contribute to good or negative perceptions of tax compliance and the impact of all these factors on the compliance behavior of taxpayers.

METHODOLOGY

Population Structure & Sample

To draw sample for the study; the foremost figure required was that of population. The sampling procedure followed for this study was at the first consultation with tax authorities regarding the count of the population of active taxpayers so that the sample could be assessed as a proxy for the true reflection of this population. The tax departments were contacted numerous times, but data could not be collected regarding population count.

The second proposed strategy was to gather a count of the population from the electoral roll of the country but in that list, there was no segregation of taxpayers, and data was scattered;

taxpayers could not be identified on their economic backgrounds, and estimation of the sample could be disrupted. Eventually, it was decided that the sample could be taken on the overall taxpayer's figure given in government reports of the Federal Board of Revenue. There were multiple figures regarding population from unverified sources and hence sample cannot be based upon those figures, some sources showed the figures, way too eloped some revealed the figure to be conflicting with the prior source.

Ultimately, as the population count was not clear, the sample was drawn taking reference from (Kreicie & Morgan 1970) and it was aimed that a sample of 384 would be sufficient to make generalization. As per this criterion, if the population count increases, the sample size would increase at a very slow rate and even sample could be stopped at 384.

Data collection

The study opted for non-probability sampling and the questionnaire was distributed among taxpayers employed in public sector institutes and some to the taxpayers engaged in the business sector of the country and kept the option open in demographics so that segregation could be inferred in results. The questionnaire was distributed to more than 600 active payers, the contact details of these taxpayers were either publicly displayed or they were either approached via their official communication office to not violated any moral obligation. The study aimed at gathering responses around 380-400 but the responses recorded were 83 even after floating the questionnaire in more than 600 people and giving continuous reminders.

Instrumentation

The questionnaire employed in this study is adapted from a previous study (Saad, N. 2011), and necessary modifications are made to the questionnaire.

The inquiry paradigm is influenced by the researcher's ontological and epistemological beliefs. These views shape the reflection of researchers regarding reality.

The questionnaire is divided into four sections, the first section comprises demographics such as age, marital status, and years of experience, income level, and geographic area followed by questions on tax knowledge, complexity of the system, tax fairness perception, and tax compliance behavior.

The data is analyzed by running ordinal regression analysis The strategy that was first adopted was multiple regression (Saad, N. 2011), but the tests of normality of data reflected that normality is not well established, as normality is not attained in the data we can proceed ahead with running multiple regression but could go on further by running ordinal regression a rather generalized version of multiple or logistic regression, along with this the data was

fulfilling all the underlying assumptions of ordinal regression and hence ordinal regression is employed as analysis strategy for the data accumulated.

ANALYSIS

Reliability of Scale

TABLE 1: Reliability Statistics

Reliability Statistics

| Consistency of scale | Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | No of Items |
|----------------------------|------------------|--|-------------|
| Tax_Knowledge_&_Complexity | 0.708 | 0.711 | 10 |
| Tax_Fairness_Perception | 0.761 | 0.757 | 10 |
| Tax_Compliance_Behavior | 0.738 | 0.736 | 10 |

Thus, we can say that the scale for the sample selected is duly reliable for the loading of all three sections of the questionnaire above 0.7 and a high level of internal consistency is achieved.

Content Validity

Assuring content validity in the thesis was of utmost for the researcher to achieve so that the findings could be significant enough when demonstrating a certain recommendation. Content validity evaluates if the measures used fully capture the domain of the construct (Taherdoost, H. 2016). Common measures that could be taken to establish content validity are either reviews from the pieces of literature or expert opinions.

Reviews from the literature were taken, considered, and incorporated well in the questionnaire, along with that opinions and views from the experts of the field were taken from the experts and based on their suggestions, merged with the literature, some items were deleted, modified, and incorporated into the questionnaire and then sent for pilot testing.

Ordinal Regression

The table below provides a statistical report about the sample selected for this study and the entries of respondents for the study, the table exhibits that there are no missing values and that the questionnaire was responded to well by the respondents as answering each question was enabled as required in Google forms by the researcher.

The table 3 reflects the three sections of the questionnaire; the first section is tax knowledge and complexity, the second section is tax fairness perception, and lastly, the section comprises questions on tax compliance behavior. The table 3 shows that there is no missing data, and every respondent has answered all the questions in each section of the questionnaire before proceeding to the next section of the questionnaire.

TABLE 2: Case Processing Summary

| | Valid | | Cases Missing | | Total | |
|--------------------------------|-------|---------|---------------|---------|-------|---------|
| | N | Percent | N | Percent | N | Percent |
| Tax Knowledge & Tax Complexity | 83 | 100.00% | 0 | 0.00% | 83 | 100.00% |
| Tax Fairness Perception | 83 | 100.00% | 0 | 0.00% | 83 | 100.00% |
| Tax Compliance Behavior | 83 | 100.00% | 0 | 0.00% | 83 | 100.00% |

Tax Knowledge, Tax System Complexity, Tax-Fairness Perception Impacting Tax Compliance Behavior

A test of ordinal regression was conducted to find the relationship between tax knowledge, tax system complexity, tax fairness perception, and tax compliance behavior.

The results generated in SPSS after running the test of ordinal regression are as:

TABLE 3: Model Fitting Information

| Model Fitting Information | | | | | |
|---------------------------|-------------------|------------|----|-------|--|
| Model | -2 Log Likelihood | Chi-Square | df | Sig. | |
| Intercept Only | 468.874 | | | | |
| Final | 408.241 | 60.633 | 2 | 0.000 | |

Link function: Logit.

The p-value suggests that the model fits well as the value is less than 0.05, the model used here for the analysis seems to be a good fit for the model, and the percentage of variation in the dependent variable brought about by independent variable is as:

TABLE 4: Pseudo R-Square

| Pseudo R-Square | |
|-----------------|-------|
| Cox and Snell | 0.518 |
| Nagelkerke | 0.52 |
| McFadden | 0.126 |

Link function: Logit.

Here, it is evident by the value of the Nagelkerke statistic of 0.520 that 52% variation in the dependent variable (tax compliance behavior) is brought about by Tax-knowledge, Tax system complexity, and Tax -fairness perception or perception of justice of Taxpayers.

TABLE 5 Parameter Estimates

| Parameter Estimates | | | | | | |
|--------------------------------------|---------------------------------------|----------|------------|--------|----|------|
| | | Estimate | Std. Error | Wald | df | Sig. |
| Location Link function: Logit. | Tax knowledge & Tax system complexity | 1.9 | 0.423 | 20.143 | 1 | 0 |
| | Tax Fairness Perception | 2.549 | 0.394 | 41.77 | 1 | 0 |

The Tax-knowledge and Tax System Complexity turn out to be positive significant driving variables in shaping the Compliance behavior of individual tax-payers, the positive coefficient value of 1.900 indicates for every one unit increase in tax knowledge and complexity there would be a 1.900 unit increase in compliance behavior of taxpayer. Similarly, fairness perception emerged as another strong significant positive predictor of tax compliance behavior of taxpayer’s compliance behavior with a positive co-efficient value of 2.549 we could say that with every one-unit positive change in fairness perception of tax-payers,’ there could be a 2.549 or thrice the positive change in tax compliance behavior of tax-payers.

The literature suggested tax knowledge to be a far more positive significant variable than it emerged in this study, the reason being that it is combined with tax system complexity in this study, where complexity is a factor that dampens or hinders the compliance behavior it is in combination with tax knowledge lowering the statistics of positively impacting tax compliance behavior. Literature regarding the relationship between tax system complexity and the formation of fairness perception seems to be in a stance of advocating the association between the two variables without specifying the direction where some see system complexity as a camouflage by the government to punish those who overproduce whereas some think of it as an advancement and progression in the system.

TABLE 6 Parameter Estimates (Two-Tailed)

| Parameter | B | Std. Error | 95% Confidence Interval | | Wald Hypothesis Test | | | Exp(B) |
|--|------|------------|-------------------------|-------|----------------------|---------|------|--------|
| | | | Lower | Upper | Wald Square | Chi- df | Sig. | |
| Tax-knowledge Tax system complexity | 1.9 | 0.4845 | 0.95 | 2.849 | 15.375 | 1 | 0 | 6.685 |
| Tax-fairness perception | 2.55 | 0.4409 | 1.685 | 3.413 | 33.418 | 1 | 0 | 12.791 |

The two-tailed parameter estimates differ from the route one results based on Exp(B) statistic and confidence interval. The Exp(B) contains odd ratios reflecting the multiplicative change in the odds of being in a higher category on the dependent variable for every one-unit change in the independent variable, provided that all other factors are kept constant.

Where there is considerable evidence indicating there is a significant association between tax knowledge and tax compliance (Saad, 2012) the direction is supported to be positive between the two variables, as tax expertise has a favorable relationship with perceived tax fairness.

(Mwesiga, 2015), it can be argued that behavioral and economic aspects are the most important in increasing taxpayer compliance.

Both the Exp (B) ratios are more than 1 and it implies that the odds of being in a higher level of tax compliance behavior increases by a factor of 6.685 for every one unit increase in Tax-knowledge and complexity and 12.791 for every one unit increase in Tax -fairness perception or perception of justice.

Fairness Perception is a difficult concept to debate and understand because everyone has their own understanding and thus their perception of fairness and unfairness in the system. While a person's circumstances influence perception, as discussed in the theory of planned behavior in the literature section, it is impossible for an individual taxpayer to fully comprehend the tax system and method. Even though some people pay taxes, they are unaware of the tax system and their tax obligations. (Farrar et al., 2020)

Correlation Analysis

As the data was not significantly normally distributed the non-parametric correlation test is drawn where the correlation is significant between tax compliance behavior and tax knowledge followed by the significant correlation between tax compliance behavior and tax -fairness perception. A strong correlation is seen between tax compliance behavior and tax-fairness perception, strongly significant and is also reflected in the model of regression. The knowledge and complexity together bring in a significant change in compliance behavior, and an association between dependent variables and independent variables is significantly correlated.

Table 7: Nonparametric Correlations

| | | | Tax- Knowledge Tax System Complexity | Tax-Fairness Perception | Tax Compliance Behavior |
|-------------------------------|---|-------------------------|---|----------------------------|-------------------------------|
| Spearman's rho | Tax- Knowledge Tax System Complexity | Correlation Coefficient | 1 | 0.123 | .417** |
| | | Sig. (2-tailed) | . | 0.269 | 0 |
| | | N | 83 | 83 | 83 |
| | Tax-Fairness Perception | Correlation Coefficient | 0.123 | 1 | .551** |
| | | Sig. (2-tailed) | 0.269 | . | 0 |
| | | N | 83 | 83 | 83 |
| Tax Compliance Behavior | Correlation Coefficient | .417** | .551** | 1 | |
| | Sig. (2-tailed) | 0 | 0 | . | |
| | N | 83 | 83 | 83 | |

** . Correlation is significant at the 0.01 level (2-tailed).

Control Factors

The control factors in the face of demographics were checked in the model to see its impact on shaping the compliance behavior of tax-payers. None of the controls turned out to be significantly strong enough to impact the compliance behavior of taxpayers.

Regress tax compliance behavior tax -fairness perception or perception of justice tax-knowledge complexity

Age

TABLE 8 Control Variable: AGE

| Control Variables | | | | |
|--|--------------|-----------|---------|--------------------|
| Dependent Variable Tax Compliance Behavior | | | | |
| Control Variable: AGE | | | | |
| | Co-Efficient | St. Error | T-value | Significance Level |
| 2 | 0.0403553 | 0.1407906 | 0.29 | 0.775 |
| 3 | 0.1403898 | 0.1936829 | 0.72 | 0.471 |
| 4 | -0.2190327 | 0.3726987 | -0.59 | 0.559 |
| 5 | -0.1715807 | 0.3851119 | -0.45 | 0.658 |

Gender

TABLE 9 Control Variable: GENDER

| Control Variables | | | | |
|--|--------------|-----------|---------|--------------------|
| Dependent Variable Tax Compliance Behavior | | | | |
| Control Variable: GENDER | | | | |
| | Co-Efficient | St. Error | T-value | Significance Level |
| 2 | -0.0270292 | 0.1079255 | -0.25 | 0.803 |

Education

TABLE 10 Control Variable: EDUCATION

| Control Variables | | | | |
|--|--------------|-----------|---------|--------------------|
| Dependent Variable Tax Compliance Behavior | | | | |
| Control Variable: EDUCATION | | | | |
| | Co-Efficient | St. Error | T-value | Significance Level |
| 2 | -0.0733072 | 0.500279 | -0.15 | 0.884 |
| 3 | 0.2253322 | 0.4963138 | 0.45 | 0.651 |
| 4 | -0.0901178 | 0.4984681 | -0.18 | 0.857 |
| 5 | -0.2155261 | 0.5748488 | 0.07 | 0.943 |

Income**TABLE 4.11 Control Variable: INCOME**

| Control Variables | | | | |
|--|--------------|-----------|---------|--------------------|
| Dependent Variable Tax Compliance Behavior | | | | |
| Control Variable: INCOME | | | | |
| | Co-Efficient | St. Error | T-value | Significance Level |
| 2 | -0.1001897 | 0.2119083 | -0.47 | 0.638 |
| 3 | 0.0491716 | 0.3571461 | 0.14 | 0.891 |
| 4 | 0.0579378 | 0.1386086 | 0.42 | 0.677 |

Experience**TABLE 12 Control Variable: EXPERIENCE**

| Control Variables | | | | |
|--|--------------|-----------|---------|--------------------|
| Dependent Variable Tax Compliance Behavior | | | | |
| Control Variable: EXPERIENCE | | | | |
| | Co-Efficient | St. Error | T-value | Significance Level |
| 2 | -0.0310802 | 0.2752725 | -0.11 | 0.91 |
| 3 | 0.1296139 | 0.282421 | -0.11 | 0.648 |
| 4 | -0.2010159 | 0.2912472 | -0.69 | 0.493 |
| 5 | 0.4174139 | 0.3729638 | 1.12 | 0.267 |
| 6 | -0.0353591 | 0.4863864 | -0.07 | 0.942 |

Respondent being Filer himself.**TABLE 4.13 Control Variable: FILER**

| Control Variables | | | | |
|--|--------------|-----------|---------|--------------------|
| Dependent Variable Tax Compliance Behavior | | | | |
| Control Variable: FILER | | | | |
| | Co-Efficient | St. Error | T-value | Significance Level |
| 2 | -0.1113443 | 0.0956857 | -1.16 | 0.249 |

Regarding the direction of the relation between the two variables it is argued that tax compliance and tax fairness have a direct relation (Juhi, 2011.) Along with the finding that disobedience conduct is unrelated to their negative perceptions (Saad, 2012).

Thus, we can say no such factor as age, being a filer, your number of years of experience, your Education has a role in shaping your compliance behavior and tax-payers are indifferent to their tax liability and no factor such as age numbers of experience, level of education your income or taxpayer filing himself has no significant impact in shaping compliance behavior of tax-payers. This can be attributed to the fact that as there is no separate discipline or course taught at any level, the knowledge of all taxpayers lies in the same range and so does the complexity they face while filing returns.

The result of the study suggests that taxpayers' fairness perception is a strong factor in altering compliance behavior and the provision of services to the public enhances this fairness perception in Khyber Pakhtunkhwa, particularly Peshawar.

The impact of tax knowledge can never be ignored as most taxpayers think the terminologies and system are complex and awareness in such areas could better mold compliance behavior. Thus, the study suggests that tax authorities focus on spreading awareness of tax knowledge, making the tax system compatible and easily understandable for taxpayers, and rightly allocating tax revenues in the provision of services so that a perception of a just system is established in the eyes of the taxpayer and so that he could comply and co-operate with the system.

All the aspects of methodology that could be of significance in this study are discussed in this section of methodology and inferential details of which are to be discussed in the following chapter of data analysis.

Discussion

Compliance behavior has been a major focus for tax authorities and researchers. While every tax system aims for an elevated level of compliance behavior among tax-payers, the contributing factors to this compliance behavior must also be well understood. It is expected that results from this study will be valuable for tax experts' authorities and administration to expand or change their existing system to achieve a preeminent level of compliance behavior. To date, different studies are conducted to suggest the molding factors of taxpayer behavior, in the global context; tax compliance behavior is analyzed by studying diverse and expanded versions of the variables involved. To understand the motivating or demotivating factors behind compliance or noncompliance behavior of tax-payers in Pakistan, due to limited published studies, the researcher supposes it is appropriate and timely to commence the learning where the impact of tax knowledge, tax system complexity, and tax-fairness perception or perception of justice is seen on tax compliance behavior of active tax-payers.

Conclusion

To understand the compliance behavior of taxpayers, the range is narrowed down to how the tax-fairness perception of a taxpayer shapes the compliance behavior of the taxpayer, as is derived from Equity theory (Zhiyong & Qingyang, 2007). This fairness perception is impacted by the level of tax knowledge and the complexity that an individual (taxpayer) might experience in dealing with the tax system and tax filings.

An overall gage of fairness perception of tax-payers reveals that taxpayers professed the tax system to be discriminating and unfair molding their perception as negative leading to noncompliance behavior. However, some studies depict the results to be otherwise and even this negative perception resulted in varying compliance behavior statistics and do not correlate harmoniously with the noncompliance behavior. While fairness perception is critical in determining the compliance behavior of tax-payers, the study also addressed the factors contributing to perception, tax-knowledge & and tax system complexity. Realizing that the fairness perception of taxpayers is the most significant component in molding the compliance behavior of a taxpayer, the researcher is compelled to take into consideration the other relevant factors motivating taxpayer's compliance behavior.

The information regarding tax compliance behavior in the context of tax knowledge, tax system complexity, and fairness perception is critical to tax authorities as the results of the study may suggest altering the strategy to get the desired level of compliance behavior of a taxpayer.

The outcome of the study suggests that sufficient tax knowledge and less system complexity improve taxpayers' fairness perception and compliance behavior. Thus, the study recommends that tax administration and concerned experts should emphasize growing taxpayers' knowledge and make the system tax-payers compatible so that the tax-payers not only understand but also see it as transparent and do not feel exploited by the system but rather encouraged to voluntary compliance.

Hypotheses supported/rejected.

The findings that emerged because of the analysis are as:

- Tax knowledge and tax system complexity significantly impact tax compliance behavior.
- Tax fairness perception significantly impacts the tax compliance behavior of taxpayers positively.
- Any demographic characteristics have no significant impact on tax molding the attitude of taxpayers towards their tax liability.

Considering these broad findings, we can infer the hypothesis of the study as:

| Research Hypothesis | Supported / Not Supported |
|--|----------------------------------|
| H1: Knowledge of the income tax system significantly influences the tax-payer's fairness perceptions. | Supported |

H2: The complexity of the income tax system significantly influences tax-payers' fairness perceptions **Supported**

H3: Fairness perceptions of the income tax system by tax-payers significantly influence their tax compliance behavior. **Supported**

Theoretical/Methodological Contribution, Practical Implications,

The study's findings are anticipated to give an update on tax-payers' perception of fairness & and compliance behavior. For instance, data for the present level of perceived justice amongst tax-payers, especially on the characteristics that demand consideration from tax authorities, may aid in the improvement of tax systems.

Recommendations

Reflecting upon the findings of the study, this study recommends:

Tax knowledge of taxpayers be improved, as it is an initiating factor of positively influencing the tax compliance behavior of taxpayers (Azmi et al., 2008). The tax knowledge can be improved by introducing a course in our curriculum that expands an array of awareness among taxpayers. Tax knowledge when improved showed promising results in reducing the perceived complexity of the system to the taxpayer and when he understands the system well, the system would seem less complex, more transparent, and comparatively fair to the taxpayer. Enhanced literacy can promise an ever-enhanced tax literacy (Rasool et al., 2016) and positive compliance.

Working on behavioral and economic factors could also be worked on if high compliance is a target for authorities (Hassan et al., 2021). Acknowledging the taxpayer and rewarding or reimbursing the taxpayer for his dutiful acts (Slemrod et al., 2019) and acknowledging the taxpayer for his contribution to the country's revenue might be one other recommendation if enhancing compliance of taxpayer is desired.

Restoring the public's faith in the prevailing system of the country, how the tax system operates, and how money translates from the government to the public also would play a decisive role in altering the compliance behavior of taxpayers. So can be done by taking measures where the public can acknowledge the provision of service where utilization is needed (Gangl, et al., 2015).

Future Study Directions and Limitations

The compliance model developed in this study is supposed to give a good explanation of taxpayers' compliance behavior. Replication of this model with further additions and expansions in dimensions of fairness perception and operationalization of tax knowledge

could serve as a better explanatory model in explaining the compliance behavior of tax-payers.

The multidimensional version of fairness perception could be incorporated for a better assessment of how fairness perception impacts the compliance behavior of individual taxpayers.

Some additional variables and potential components such as penalties by the government, levels of tax evasion and corruption in the country, or other factors that could shape the compliance behavior could also be integrated while conducting the research in further in this area.

Where the study has a significant contribution, it is also exposed to certain limitations. The study opted to collect data from primary sources and opting for such sources is exposed to inherent weaknesses of non-response bias and respondent's differing interpretation of the questions and the sample selected from the population of individual tax-payers.

To mitigate these weaknesses several measures are taken to enhance transparency and quality of the data. Furthermore, analysis verifies that there is no problem of response bias in the data. However, it is admitted that these flaws may persist to some degree provided that the response rate of the study was low as compared to what was expected for the research.

To address the second weakness of differing interpretations by respondents, the researcher aimed to make several efforts to ensure that the wordings and sentences were simple, precise easy to understand, and clear. Secondly, pilot testing of the questionnaire was also conducted to eradicate such weaknesses.

As the study only used individual tax-payers, thus caution should be taken while generalizing the results of the study to another group of tax-payers.

REFERENCES

- Ahmad¹, M. A. R., Ismail, Z., & Halim, H. A. (2016). Awareness and perception of taxpayers towards goods and services tax (GST) implementation. *International Journal of Academic Research in Business and Social Sciences*, 6(11), 2222-6990.
- Alm, J. (2012). Measuring, explaining, and controlling tax evasion: lessons from theory, experiments, and field studies. *International tax and public finance*, 19(1), 54-77.
- Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of economic literature*, 36(2), 818-860.
- Awan, A. G., & Hannan, A. (2014). The Determinants of tax evasion in Pakistan: a case-study of Southern Punjab. *International Journal of Development and Economic Sustainability*, 2(4), 50-69.
- Azmi, A. A. C., & Perumal, K. A. (2008). Tax fairness dimensions in an Asian context: The Malaysian perspective. *International Review of Business Research Papers*, 4(5), 11-19.

- Bhutta, Z. M., Rasheed, R., & Khan, A. B. (2019). Psychological Factors Affecting Tax Compliance Behavior of Pakistani Taxpayer: An Extended Theory of Planned Behavior Perspective. *Pakistan Journal of Social Sciences (PJSS)*, 39(4).
- Bolton, L. (2017). Effectiveness of tax reform interventions.
- Chih-Pei, H. U., & Chang, Y. Y. (2017). John W. Creswell, research design: Qualitative, quantitative, and mixed methods approach. *Journal of Social and Administrative Sciences*, 4(2), 205-207.
- Colm, G. (1934). The ideal tax system. *Social Research*, 319-342.
- Cyan, M. R., Koumpias, A. M., & Martinez-Vazquez, J. (2016). The determinants of tax morale in Pakistan. *Journal of Asian Economics*, 47, 23-34.
- Cyan, M. R., Koumpias, A. M., & Martinez-Vazquez, J. (2017). The effects of mass media campaigns on individual attitudes towards tax compliance; quasi-experimental evidence from survey data in Pakistan. *Journal of behavioral and experimental economics*, 70, 10-22.
- Cyan, M., Koumpias, A., & Martinez-Vazquez, J. (2016). The effects of media campaigns on individual attitudes towards tax compliance; quasi-experimental evidence from survey data in Pakistan. *Andrew Young School of Policy Studies Research Paper Series*, (16-17).
- De Monticelli, R. (2018). On Pluralism, Value Disagreement and Conflict: A Phenomenological Argument for Axiological Universalism. *Journal of the British Society for Phenomenology*, 49(4), 342-355.
- Dodge, J. M. (2004). theories of tax Justice: ruminations on the benefit, Partnership, and Ability-to-Pay Principles. *Tax L. Rev.*, 58, 399.
- Etzioni, A. (1986). The case for a multiple-utility conception. *Economics & Philosophy*, 2(2), 159-184.
- Farrar, J., Massey, D. W., Osecki, E., & Thorne, L. (2020). Tax fairness: Conceptual foundations and empirical measurement. *Journal of business ethics*, 162(3), 487-503.
- Feltenstein, A., & Cyan, M. R. (2013). A computational general equilibrium approach to sectoral analysis for tax potential: an application to Pakistan. *Journal of Asian Economics*, 27, 57-70.
- Fernández-Albertos, J., & Kuo, A. (2018). Income perception, information, and progressive taxation: Evidence from a survey experiment. *Political Science Research and Methods*, 6(1), 83-110.
- Gambo, E. M. J., Mas'ud, A., Nasidi, M., & Oyewole, O. S. (2014). Tax complexity and tax compliance in African self-assessment environment. *International Journal of Management Research and Reviews*, 4(5), 575.
- Gangl, K., Kirchler, E., Lorenz, C., & Torgler, B. (2015). Wealthy tax non-filers in a developing country: Taxpayer knowledge, perceived corruption, and service orientation in Pakistan. *Perceived Corruption and Service Orientation in Pakistan (August 13, 2015)*.
- Güzel, S. A., Özer, G., & Özcan, M. (2019). The effect of the variables of tax justice perception and trust in government on tax compliance: The case of Turkey. *Journal of behavioral and experimental economics*, 78, 80-86.
- Ijaz, S. (2016). Pakistan: Moving the Economy Forward.
- Juhi, A. H. (2011). *Tax fairness and tax compliance in Iraq* (Doctoral dissertation, Universiti Utara Malaysia).
- Kamal, A. (2019). Tax Evasion in Pakistan: Determinants and Requisite Policy Interventions. *European Online Journal of Natural and Social Sciences: Proceedings*, 8(1 (s)), pp-185.

- Kamal, A. (2019b). (s) Special Issue on Advancement of Business and Management Science. *European Online Journal of Natural and Social Sciences*, 8(1). <http://www.european-science.com>
- Kamal, A. (2019c). (s) Special Issue on Advancement of Business and Management Science. *European Online Journal of Natural and Social Sciences*, 8(1). <http://www.european-science.com>
- Kasippilai, J. (2000). Taxpayer knowledge index as a clue for non-compliance. *Journal on Pakistan's Taxation Laws*, 81(3), 45-91.
- Kraft, P., Rise, J., Sutton, S., & Røysamb, E. (2005). Perceived difficulty in the theory of planned behaviour: Perceived behavioural control or affective attitude? *British journal of social psychology*, 44(3), 479-496.
- Lamm, H., & Schwinger, T. (1980). Norms concerning distributive justice: Are needs taken into consideration in allocation decisions? *Social Psychology Quarterly*, 425-429.
- Leventhal, G. S. (1976). *What should be done with equity theory?* Innovative approaches to the study of fairness in social relationships.
- Lirio-Casa, D. A. (2020). *The Perceived Factors that Influence Contingent Employees' Attrition: A Qualitative Case Study* (Doctoral dissertation, University of Phoenix).
- Loo, E. C., McKerchar, M., & Hansford, A. (2010). Findings on the impact of self-assessment on the compliance behaviour of individual taxpayers in Malaysia: A case study approach. *J. Austl. Tax'n*, 13, 1.
- Malik, M. S., & Younus, S. (2020). Voluntary Tax-compliance Behavior in SMEs; Evidence from Pakistan and Turkey. *Review of Economics and Development Studies*, 6(4), 905-918.
- Malik, M., Development, S. Y.-R. of E. and, & 2020, undefined. (2020). Voluntary Tax-compliance Behavior in SMEs; Evidence from Pakistan and Turkey. *Reads.Spcrd.Org*, 6(4), 905–918. <https://doi.org/10.47067/reads.v6i4.289>
- Marafa, Y. A. (2022). *Higher Education Faculty Members' Experiences In Designing A Quality Syllabus For Online Education* (Doctoral dissertation, The University of North Dakota).
- Morgan, K. (1970). Sample size determination using Krejcie and Morgan table. *Kenya Projects Organization (KENPRO)*, 38, 607-610.
- Mukasa, J. (2011). *Tax knowledge, perceived tax fairness and tax compliance in Uganda: the case of small and medium income tax payers in Kampala Central Division* (Doctoral dissertation, Makerere University).
- Mukhlis, I., Utomo, S. H., & Soesetio, Y. (2015). The role of taxation education on taxation knowledge and its effect on tax fairness as well as tax compliance on handicraft SMEs sectors in Indonesia. *international Journal of financial research*, 6(4), 161-169.
- Naeem, A., & Gulzar, S. (2021). Voluntary tax compliance behavior of individual taxpayers in Pakistan. *Financial Innovation*, 7(1), 1-23.
- Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. D., Thompson, B., & Harris, K. (2004). Quality indicators for research in special education and guidelines for evidence-based practices: Executive summary.
- Paley, J. (2005). Phenomenology as rhetoric. *Nursing Inquiry*, 12(2), 106-116.
- Palil, M. R. (2005). Taxpayers knowledge: A descriptive evidence on demographic factors in Malaysia. *Jurnal Akuntansi dan Keuangan*, 7(1), 11-21.
- Palil, M. R., Akir, M. R., & Ahmad, W. F. B. W. (2013). The perception of tax payers on tax knowledge and tax education with level of tax compliance: A study the influences of religiosity. *ASEAN Journal of Economics, Management and Accounting*, 1(1), 118-129.

- Piracha, M., & Moore, M. (2016). Revenue-maximising or revenue-sacrificing government? Property tax in Pakistan. *The Journal of Development Studies*, 52(12), 1776-1790.
- Saad, N. (2011). Fairness perceptions and compliance behaviour: Taxpayers' judgments in self-assessment environments.
- Saad, N. (2012.). Fairness Perceptions and Compliance Behaviour: Tax-payers" Judgments in Self-Assessment Environments.
- Saad, N. (2014). Tax knowledge, tax complexity and tax compliance: Taxpayers' view. *Procedia-Social and Behavioral Sciences*, 109, 1069-1075.
- Sarker, T. K. (2003). Improving tax compliance in developing countries via self-assessment systems-What could Bangladesh learn from Japan. *Asia-Pacific Tax Bulletin*, 9(6), 3-34.
- Sheffrin, S. M. (1993). What does the public believe about tax fairness?. *National Tax Journal*, 46(3), 301-308.
- Siahaan, F. O. (2012). The influence of tax fairness and communication on voluntary compliance: trust as an intervening variable. *International Journal of Business and Social Science*, 3(21).
- Slemrod, J., Rehman, O. U., & Waseem, M. (2019). *Pecuniary and non-pecuniary motivations for tax compliance: Evidence from Pakistan* (No. w25623). National Bureau of Economic Research.
- Smith, D. W. (2013). Phenomenology. *The Stanford*.
- Suleman, S., Cheema, A. R., Riaz, M. F., Yousaf, M. M., & Shehzadi, A. (2014). Time series investigation of J-curve of Pakistan with Saudi Arabia. *Journal of Finance and Economics*, 2(6), 210-214.
- Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. *How to test the validation of a questionnaire/survey in a research* (August 10, 2016).