

# **Public Service Delivery, Trust, Tax Morale, and Willingness to Pay Taxes: Perceptions of Economic Agents in Malakand and Gilgit- Baltistan**



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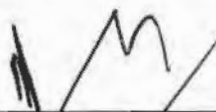
**PUBLIC SECTOR DELIVERY, TAX MORAL, AND WILLINGNESS TO PAY TAXES:  
PERCEPTIONS OF ECONOMIC AGENTS IN MALAKAND AND GILGIT BALTISTAN**

By

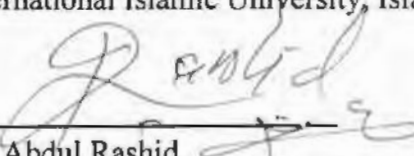
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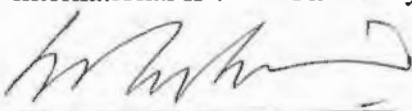
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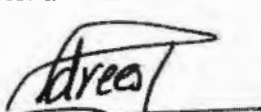
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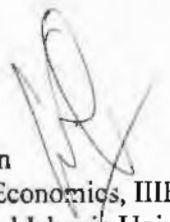
  
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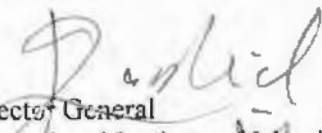
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# **Dedication**

I dedicate this thesis to my family

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In the name of Allah (SWT), The most merciful, The beneficent. His countless blessings enable me to be determined in front of hurdles faces during the phase of this research process and to write these words today. All Praise and glories ultimately dedicated to Him.

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## **Declaration**

No portion of this thesis is allowed to refer in support for any other degree or qualification of this or other university and learning institute.

## **Abstract**

This study aims to investigate the role of different cultural and institutional factors that develop citizens' level of trust in government and formulate impact of this trust on tax morale and willingness to pay taxes. In order to achieve the goal, we employ feasible generalized least square (FGLS), ordered probit regression, generalized structural equation model (GSEM) techniques, and mediation techniques developed by Hayes (2018) on a survey data of 1700 individuals obtained through multi stage stratified random sampling techniques from Malakand and Gilgit-Baltistan regions. Our findings reveal that certain cultural and institutional factors have a significant and positive impacts on developing trust in government. Among these factors, satisfaction with public services, economic performance, and social capital are the key determinants. In contrast unemployment, and corruption impede level of trust in government. The findings of the study also reveal that trust in government has a significant positive impact on tax morale and individuals' willingness to pay for the public services. We also find that institutional factors i.e., satisfaction with public services, unemployment, economic efficiency, income level of individual and government efforts in tackling corruption are related with tax morale via two channels. In indirect channel, trust in government plays a significant role between these institutional factors and tax morale. We propose to improve public services provision, economic efficiency and measures to eradicate corruption to enhance the trust in government, tax morale and willingness to pay taxes.

**JEL codes:**H26, H31, H49, H41.

**Keywords:** Satisfaction with public services delivery, Trust in government, Tax Morale, Willingness to Pay taxes.



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## List of Abbreviations

Word	Abbreviations
Satisfaction with Current Economic Conditions	CEC
Dummy for Individual Residing in Cities	CITY_DUM
Civic Engagement	CIVICENG
Corruption	CRP
Satisfaction with government effort against corruption	CRP1
Democratic Rights	DR
Economic Efficiency	EE
Dummy for Ethnic Diversity	ETH_SUNNI
Joint Family	J.FAM
Level of Education	LEDU
Political Efficacy	PE
Political Help	PHELP
Affiliation with ruling Party in Capital	RP_CAP
Affiliation with Ruling Party in Gilgit-Baltistan	RP_GB
Redistribution Preferences	REDIST
Social Capital	SC
Sources of Information	SOI
Satisfaction with Public Services	SPS
Trust in Government	TG
Total Monthly Income	TIM
Tax Morale	TMO
Unemployment	U.EMP



# Chapter 1

## Introduction

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### 1.1. Background of the Study

Democracy is a collective decision-making political system with in a state, institutions or organizations in which power is divided among members equally.<sup>1</sup> Modern democracies attempt to bridge the gap between Hobbesian state of nature and Authoritarianism through ‘social contract’. This contract ensures the rights of citizens, curtail the power of the state, and grant agency through right to vote and engage population with some level of decision making (Olson, 1993). Democracy mainly based on a set of economic and political rules created and enforced by the state and its citizens collectively. Economic institutions generate the economic incentive and it is the political process that determines what economic institutions people lives under, and it is the political institutions that determine how this work (Acemoglu and Robinson, 2012). The democratic political institutions formulate policies to facilitate and strengthen economic institutions for the generation and protection of economic incentives which favors economic progress and interest of the state in the long run.

These formulated policies can be called as a set of certain maneuvers that aim to obtain specific objectives or targets which can be political, managerial, financial and administrative in nature (Ibrahim, 2015). These policies represent the settled and decided head to all actions taken in administrative executive departments being within the boundaries of constitutional rule, regulations, judicial regulations and interpretation that are under legislations rule (Schuster, 2009). These policies are designed, formulated, and promulgated by the administrative branches of the government, its different entities and representatives for solving

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<sup>1</sup> OED Online. Oxford University Press.

public issues (Kilpatrick, 2000). In the light of the above-mentioned definitions public policy making can be characterized as dynamic, complex, and interactive system that is capable to identify public problems and counter them by creating new or by reframing existing policies (John, 2012).

Researchers emphasized on the promotion and welfare of general public while explaining important elements of successful public policies (Ng, 2018). For example, in the long run, a good public policy keeps happiness-oriented objectives, reduces income inequality and mainly focus on effective provision of public goods. Hence, the best public policy aims to solve the issues efficiently and effectively for the sustainability of the government institution, provision of the justice to all segment of the state, and to generate incentive for the active participation of economic agents.<sup>2</sup> Therefore, public policies should be designed to deliver best possible solutions to the problems of economic agents by efficient utilization of governmental resources.

Public support acts as an input to meet these objectives and stands among one of the outputs of the objectives of public policy process. Their participation in the policy process is hindered by their perceptions about outcome of the policies, their attitude toward the government and its institutions. The success of any public policy approved by politician's depend on public support it succeeds to attain and voter's acceptance.

A lot of factors prevail that contribute into the complexity of this process of policy making as politician, civil servants, lobbyists, domain experts, and industry or sector representatives use a variety of tactics and tools to advance their aims. This includes advocating their positions publicly, attempting to educate supporters and opponents, and mobilizing allies

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<sup>2</sup> "Characteristics of Successful Public Policy".

on a particular issue for gaining their own objectives (Schramm and Roberts, 1971). Different economic agents, political groups, stakeholders compete and collaborate to influence policy makers to act in a particular way. Government administrators have a duty to explain pros and cons of a particular policy to all stakeholders for their consensus.

Public participation is known as a compulsory ingredient of a successful public policy process either through their participation via political representations or by their active role as a citizen. Therefore, it is imperative to engage with people and to consider their opinion for the sustainability of public policy implementation. That is why, political leaders constantly struggle to reconcile policy and politics within constitutional limits (Ibrahim, 2015). In this context, we primarily focus on this most important state actor of public policy, ultimate effectors or beneficiaries of public policies. The way economic agents respond and the way they perceive to certain actions of the state institutions are most important because they matter very much for the successful implementation of these policies. The preferences of economic agents that influence public policy making can be of economic, social, or political in nature (Cruz, 2015).

Two main reasons for the government to worry about non-participatory behavior of the public are rising deficit problems and equity problem among its citizens (Palil and Mustapha, 2011). Their willingness to pay to support government institutions depends upon the understanding among the economic agents about the nature of the problem. Public participation is higher where general public is the immediate beneficiary and this participation enhances government credibility among the general public. Education level is important but public attitude toward the government efforts in tackling the problems also boost their participation. The way economic agents perceive about other citizens participation, trust on the government,

availability of democratic rights and social capital are among the important factors (Dong and Zeng, 2018; Adaman et al., 2011; Yang et al., 2014; Sun et al., 2006).

There is a need for awareness about the public policies and its ultimate objectives through mobilizing communities, spreading information about its benefits through media (Lee et al., 2017). Laurian (2004) argues that lack of awareness about the public programs especially in least mobilized communities is a major reason for non-participation in policy process. Along with this there are other factors too, that is; individual motivational level, financial resources, integration in social network, and trust in government (Laurian, 2003).

Bussemeyer et al. (2018) find that the public opinion reacts to the provision of certain information. Therefore, for any reform, if policymakers succeed in making tradeoffs salient, they may reap support that shift spending in area where it will be most effective. Participation can be very helpful in educating the economic agents about important tradeoff and gaining valuable inputs from public about their preferences and priorities (Ebdon and Franklin, 2006). Mobilized citizens play their active role for the successful implementation of the public oriented policies and to reap its benefits. Unfortunately, in developing world, there exists a wider difference between what public require and what the government is able to provide them.

To encourage economic agents for their participation and efficient implementation of public policy, there is a need to highlight, the importance of their position in whole process. Mutual relationship between government and general public is mainly influenced by the motivational level of economic agents which is one of the main factors for the realization of their duties and responsibilities toward the state institutions and toward other citizens too. Such motivational levels are influenced by the expectation of the public toward the government and how government meet these expectations (Lowi, 1964). We trust other citizens to monitor for abuses of our own rights and privileges just as we monitor for abuses of their rights and

privileges. Citizens must be ensured that the institutions are fair and honest in their working, acting for the welfare of the masses and people continue to abide by shared regulations (Lenard, 2008). They must be ensured in a developing world that their words, action, desired, expectations matter and admired by the respective authorities while framing any policy just like they matter in developed nations.

For instance, in 1990, partisan disagreement made it difficult to agree on spending cut or tax increase to tackle the rising deficit problem in the USA. However, because of public pressure, the parties finally did agree on a procedure that at least forced spending and revenues into better alignment (Mead, 2013). Similarly, in November 2017, endorsing tax related reforms in Gilgit Baltistan region of Pakistan created a tension among the masses. Ultimately, huge protest from the local population forced the government to take back their decision.

A vital role in policy process played by the legitimacy of political, administrative institutions and citizens based upon trust. Trust in authorities means that tax payers perceive the authorities as compassionate and act in a way that benefits general public and improve their wellbeing. Trust in institutions is also defined as “authorities act in such a manner that boost good governance, which can free society from corrupt practices” (Masud et al., 2014). Trust in government is a set of multiple common and deviating factors across the globe but the factor directly associated with general public are their personal and practical experience with these institutions. The level of trust in authorities is influenced by level of satisfaction with public service delivery and government performance (Bouckaert and Van de Walle, 2001). Trust that people vest in their fellows or institutions depends upon three factors: the reflected trustworthiness of the target as perceived by individuals, the attitude as a result of socialization and overall culture of trust prevailing in society (Sztompka, 1998).

There is a need to bridge the gap between government and general public based upon trust to ensure the public that sole purpose of the existence of state or their departments is to serve general public but on contrary people should obey the legislations introduced by state officials (Laurian, 2004, 2003). Furthermore, when the experiences from these departments are largely positive, they inclined toward more trust on the government (Kumlin, 2002; Rothstein and Steinmo, 2002; Tyler, 2004). On the other hand, trust level also differs based upon the hierarchical structure of the government. Liu and Raine (2016) provide evidence about the difference of trust on central and local government and say that level of authority and power available to these institutions determine the level of trust (Salim et al., 2017) in China. The more people are satisfied with the public services delivered by the government at various level, the more they will put their trust on them. However, Oskarsson et al. (2009) find that if respondent perceive the rules as fair, trust is less provoked by increasing power asymmetries at various level.

Similarly, Christensen and Laegreid (2005) also find that a high level of trust on one government institution leads to extend this trust on other institutions. People who are more satisfied with a specific public service exhibits a higher level of trust in public institutions than citizens who are dissatisfied. Public services delivery is a major factor for influencing the citizens satisfaction in South Africa (Akinboade et al., 2012). Extracting benefits from the services delivery improves the satisfaction level of the public (Morgan and Pelissero, 1979). The negative image that citizens poses about their government and administrations is said to be consequences of functioning of these administrations. Better quality public services are supposed to lead satisfied users, which sequentially increase trust in government (Bouckaert et al., 2002).

Trust and distrust in political institutions is said to be substantially endogenous and largely determined by political and economic performance of new democracies. Trust can be nurtured by improving the conduct and performance of political institutions, rooting out corrupt practices and by promising to provide a better material future for country as a whole (Mishler and Rose, 2001). Suh et al. (2012) find a positive relationship between perceptions of institutional performance and trust in institutions. These expectations and perceptions of how a certain public service is performing do not originate from individual level citizens-service interactions but social interaction also influences (Bouckaert and Walle, 2003). On contrary, a lot of other important factor contribute in formation of trust in government. Perception about the existence of high-level corruption in government institution deteriorate the trust (Wang, 2010; Kim, 2010, 2016; Stoyan, 2016; Hetherington, 1998).

Widespread communication systems complex the process of public policies. Print or electronic media plays their role in framing the public's level of trust on the government. Hetherington and Husser (2012) argue that effects of trust on defense and racial policy preferences increases as the media gives more attention in these areas and decreases when that attention ebbs. Damico et al. (2000) say that if the trust, once lost, then it's difficult for a government to regain and they claim that the press has become consistently more negative in its coverage of government, probably, reinforcing people's political trust.

As in Henderson (1908), it is a moral duty of all the citizens to support their respective government and its institutions and thus to pay for the government that is done and received, in proportion to ability to pay. However, several studies come with the findings that trust is one of most important factors for encouraging the citizen's willingness to pay their share of cost incurred during provision of services (Masud et al., 2014; Lisi, 2014). Trust affects willingness to pay tax through tax morale means trust led to higher tax morale of citizens which in return

boost the willingness to pay taxes (Lago-Penas and Penas, 2010; Torgler and Alm, 2004; Alm & Torgler, 2006). Prevailing social and domestic value also force or encourage the tax payers to pay for what they have consumed and utilized. Therefore, Witte (1992) states that if the tax authorities are trying to prevent rampant tax evasion, it might consider a public relation campaign which encourage “honest tax payers” to denounce tax evaders.

To form these perceptions about public service delivery, economic performance or public policies, economic agents need to make complicated inference about the expected outcomes of policies (inequality, mobility) based on limited information's available which can be regarded as statistical inference problem. They also suppose the expected impact of these policies on the other economic agents around them means no more than a sub-sample of actual population turning such perceptions systematically biased. Cruces et al. (2013) analyze how people alter their perceptions about distribution policies when provided by full information about their actual financial status rather than what they have perceived due to constraint knowledge and show the importance of providing full information in forming perceptions (Duflo and Saez, 2003).

Keeping in view the above discussion, it is simply concluded that public policy is considered as a process of decision making about public issues and analysis of government decision. The best public policy has aims to evaluate the issue as efficiently and effectively as possible. An effective public policy should have intrinsic values such as happiness-oriented objectives, welfare of citizens, reducing income inequality, and effective provision of public goods. It should have ability together all the stakeholders on a platform by expressing its net advantages.

There exist two important interrelated factors that affect the perceptions of general public which hampers their participation that is trust on institutions and tax morale. Positive



perceptions enhance the trust and tax morale while negative perceptions reduce it. There exists a one-to-one correspondence between willingness to pay tax and trust in government.

On contrary, higher trust leads to higher tax morale which ultimately leads to higher tax compliance. Received literature on the subject highlighted a number of factors that affect this nexus of trust, that is, perceptions about corruptions (Wang, 2010), socio-demographic factors (Wong et al., 2009; Bauer and Fatke, 2014), peers influence (Liu and Raine, 2016), civic engagement (Stoyan et al., 2016), and satisfaction from public service delivery (Akinboade et al., 2012; Wong et al., 2009). Our intention of this study is to analyze the effects of perceptions of general public about public services delivery, economic performance, democratic rights and governance on trust over institutions. Further, we aim at observing the nexus between trust in government and public willingness to pay taxes in Gilgit Baltistan and Malakand division of Pakistan.

## **1.2. Gap Analysis**

A number of studies have been carried out to capture the relationship between public services delivery, tax morale, trust in government and willingness to pay taxes. However, these studies have not covered the issue with its full length. This is a survey-based study from the NCP (Non-Custom Paid) areas of Pakistan. Specifically, from Malakand Division and Gilgit-Baltistan (GB) regions which are exempted from taxes since their annexation into Pakistan. The share of taxes from Gilgit-Baltistan and KPK in total taxes collection of Pakistan in 2018 was on 0.12% and 3.54% respectively.<sup>3</sup> At the moment only indirect taxes i.e., sales tax is being charged from resident of these areas. On contrary, residents are exempted from direct taxes i.e., income taxes, property tax, agricultural income taxes, federal excise duties, custom

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<sup>3</sup> Tax directory analysis for year ended June 30. 2018.

duties on vehicle etc. Politically engineered motives, exclusion from the federation since independence, lack of prior studies on the issue, trust in government, dissatisfaction from the available public services and deficiency of public campaigns by the provincial government might be reasons for opposition against taxes by general public of the region. Zafar (2011), for instance, identifies unavailability of certain services and low level of satisfaction with these available services are the major reasons for rising insurgents and anti-state elements in Swat district.

This study contributes to received literature in three ways. Firstly, it explores the relationship between public services delivery, trust, tax morale and their impact on willingness to pay for taxes. Existing studies on the subject analyzed individual level relationship for instance public services delivery and trust in government nexus (Bouckaert et al., 2002; Stoyan, 2016; Kim, 2010; Akinboade, Kinfack and Mokwena, 2012; Morgan and Pelissero, 1979), trust in government and tax morale (Torgler and Alm, 2004; Cumming et al., 2009; Martinez-Vazquez and Torgler, 2009; Torgler, 2005). However, no study has been carried out which analyzes the interplay of all these variables simultaneously.

Secondly, this study makes a significant contribution to the literature by exploring the role of trust in government as a mediator in the relationship between institutional factors and tax morale. These institutional factors include satisfaction with public services, economic efficiency, corruption, unemployment and income level.

Thirdly, this study is different from earlier on this subject that analyzed people willingness to pay for the provided or improved services in areas where government has already enacted taxes on these services or has imposed some other form of taxes. On contrary, we analyze the WTP (Willingness to Pay) taxes in areas where economic agents are reaping out benefits of available public services. However, government has not ratified any form of taxes

in these areas on such services and economic agents of these areas are acting as free riders on the taxes collected from other parts of the country.

### **1.3. Problem Statement**

Pakistan is trying hard to increase its revenues to counter rising debt and deficit issues. On contrary, a big geographical area acting as a free rider. This study is devoted to examine the perception of economic agents these areas. Such perceptions about government shapes their level of trust in government, tax morale and willingness to pay for public services they receive. In addition, there are numerous socio-economic factors affecting perception of economic agents and hence the trust level of society both individually and collectively. Satisfaction with public services and economic performance of the government improves the trust in government while perceptions about existence of corruption in government departments impede it. Trust that public vest in their respective governments varies as perceptions of individuals about their satisfaction level differs. Important elements that play their role in framing trust in government are educational level of individuals, their age, ethnic diversity and general level of trust prevailing in the society. Trust in government is among the determinants of the tax morale. Jointly, tax morale and trust in government leads toward more willingness to pay taxes.

### **1.4. Objectives of the Study**

The study aims to extend the existing literature by achieving the following objectives;

- 1) To analyze the level of trust of economic agents in government in Gilgit Baltistan and Malakand Division.
- 2) To investigate the impact of institutional factors (Public services, Economic Efficiency, Corruption) and cultural factors (Social Capital, Civic engagement) on trust in government.

- 3) To analyze the relationships between trust in government and tax morale, trust in government and willingness to pay.
- 4) To analyze the structural relationship between institutional factors (Satisfaction with public services, economic efficiency, unemployment, income level, Corruption), trust in government, and tax morale.

### **1.5. Testable Hypotheses**

Based on our literature and objectives of the study following hypotheses are tested.

**H1:** The trust in government increases with higher satisfaction with public services delivery and economic performance of the government.

**H2:** Availability of democratic rights (H2a), Peer's influence (H2b), political affiliation (H2c) and social trust (H2d) also frame citizens perceptions about trust in government.

**H3:** Older people and people with better educational level put higher trust in government.

**H4:** The higher the trust in government the higher would be the tax morale and willingness to pay for the public services.

**H5:** Satisfaction with institutional factors ((Satisfaction with public services, economic efficiency, unemployment, income level, Corruption)) leads to higher trust in government which in turn rises tax morale of citizens.

### **1.6. Significance of the Study**

This study fulfills the gaps by exploring the perceptions of economic agents toward public institutions and its impact on taxation policies outcomes in Pakistan. This topic is highly

attracted in a scenario where IMF and World Bank stressing developing countries (like Pakistan) to increase its tax base for more availability of the financial resources to tackle rising external debt problem. However, Pakistan has declared a vast area, like Malakand Division, FATA (Federally administered tribal areas), Gilgit-Baltistan, different areas of Balochistan, as tax free zones. Since independence people of these areas are exempted from certain type of direct and indirect taxes like income tax, property tax, custom duties, federal excise duties.

This study benefits policy makers by identifying the determinants of trust in government in these areas. This study helps to stop future generations from political instability, insecurity and insurgencies through identification of determinants of trust in government and its institutions and recommending appropriate measure to be taken by the competent authorities to uplift the prevailing trust level in the sample area. In addition, this study also helps the civil government to reconsider the policies, process of services delivery, and factors hampering the pace required for efficient provision of services. Moreover, it identifies the preferences of economic agents required to uplift trust and willingness for their cooperation.

This study may support policy formulation by analyzing the impact of ethnic diversity on trust in government and tax morale. As both Malakand and Gilgit Baltistan are ethnically different as in Malakand Sunni people are in clear majority while in Gilgit-Baltistan Shia population is in majority. Similarly, Malakand division consists of former states of Swat, Dir and Chitral while Gilgit-Baltistan consists of Nagar, Hunza, Gilgit, Skardu and Khaplu. Currently Malakand division is a part of Pakistan but on other hand Pakistan is still administering Gilgit-Baltistan as an autonomous state due to its linkages with Kashmir issues.

Similarly, both of the regions are politically administered by two different political parties as in Malakand division PTI is ruling while in Gilgit-Baltistan PMLN are ruling. Hence,

analyzing in such a scenario is helpful in observing the role of political affiliation of the individuals in developing trust in government, tax morale and willingness to pay taxes.

Rising tax base to increase availability of funds for developmental projects is a major challenge faced historically by government of Pakistan. This study also open new window for policy makers to think the ways to collect the taxes from these areas if they are willing to pay and if not, then, this study helps them out to identify the reasons behind this low level of willingness to pay taxes and how to overcome such deficiencies so that future administrations can get benefit out of it.

### **1.7. Structure of the Study**

The remaining of the thesis is structured as follows. Chapter 2 presents literature review about trust in government, tax morale and WTP taxes. Chapter 3 deliberates the theoretical model in support of literature review followed by an econometric analysis and estimation techniques. Moreover, the chapter also cover sources of data, construction of variables, and sample size for our research. Moving forward, Chapter 4 comprises of estimations of models, and interpretations of the results. Finally, Chapter 5 is the concluding section of this thesis.

# Chapter 2

## Literature Review

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We start this chapter with Section 2.1, which presents theoretical perspectives of trust in government, definitions explained by different scholars, and its determinants, namely, public service delivery, perceptions about economic performance of government, corruption, political efficacy, political affiliation, satisfaction with democracy, social and demographic factors. Furthermore, Section 2.2 presents review of studies on the relationship between trust in government, and WTP taxes, trust in government, and tax morale. The last section (section 2.3) illustrates literature gap extracted from literature review.

### **2.1. Trust in Government and its Determinants**

What is the nature of the relationship between people and government? Whether people exist for the government to obey its authority or government exist for the people to subordinate their authority? Contrasting arguments of the different scholars exist and the difference arises while assuming the social nature of individuals living in a society. For instance, Hobbes (1588-1679) argue that individuals by nature are cruel, disrespectful to one another, greedy and lazy. He views all people seeking power over other people and peace exist only if they fear retaliation from others. The untrustworthy nature of people give rise to the monarchy, only rational response if people wish to live in a secure environment.

Whereas, Locke (1632-1704) purposes a government that is subordinate to the people. He argues that natural state of individuals is personal freedom as they are rational and respect the others freedom as they expect from others. Government is the creation of individuals therefore its authority rest in people and subservient to the people. Both views exist, if we see

them through the mirror of cooperation and trust. The development of civilization implies a forming of bonds among individuals of different attitude, social norms and evolution of complex trust mechanism which further integrate into social system (Bluhm, 1987), where human interactions are key to achieve goals (Borum, 2010). Parry (1976) argues that 'mutual trust favors polyarchy and public contestation while extreme distrust favors hegemony'. Three major reasons may explain why. Firstly, the mutual communication required in a polyarchy best occurs where human trust one another. Secondly, to attain common objectives, human need to trust one another and to associate together in the achievement of those objectives. Thirdly, a feeling of trust prevents political disputes from turning into sever enmity.

In the context of prisoner dilemma, Hillman (2003) argues that trust is substantiated and depends upon the expectation of people toward other individuals based upon the social norms. Benefits to the society can be maximized if trust and cooperation being a part of social norms dominate in a society. Trust and cooperation emerge as main difference between Hobbes and Locke thoughts. Trust is substitute to the government. Less government is required, when Locke's view is correct then when Hobbes is correct.<sup>4</sup>

In contemporary political economy, this idea wide spread with the working of Easton (1965), that developed a systems theory of political life which hypothesized that American gives two types of support to their government. First, specific support that is based on the evaluation of political authorities and policies they advanced. Second, diffuse support that focus on acceptance or rejection of the basics of entire political system.<sup>5</sup> Maintenance of specific support is important, but existence of diffuse support is absolutely necessary. Hence, trust is considered as a leading indicator of diffuse support. Failure to generate diffuse support

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<sup>4</sup> Hobbes (1651/1962), Locke (1690/1960).

<sup>5</sup> Definitions cited here are from "A re-assessment of the concept of political support".



leads to endangered political system, demand for social and political change (Flanigan and Zingale, 1975), Political Violence (Muller, 1972), distrust of government or political cynicism (Miller, 1974; Fledman, 1983), Political alienation (Gant and Luttbeg, 1991). Political alienation can be reduced through educating population and restoring trust and efficacy.

There exist two theories about the origin of political trust which are further divided into two dimensions that are cultural theories and institutional theories. Cultural theories differ from institutional theories based on the way trust is perceived exogenous or endogenous to political institutions. Cultural theories consider trust as exogenous, a basic feature of human being learning early years of his or her life (Borum, 2010), while institutional theories treat trust as endogenous, consequences of institutional performance (Mishler and Rose, 2001). The dimensions in which these theories can be viewed are macro-oriented and micro-oriented theories. Macro theories of both types emphasize that trust is a collective and a shared value in a society which flourished through country's prevailing economic performance. While micro-theories define trust an individual phenomenon that varies among individuals of the society based on their socialization nature and social background, political and economic evaluations and perceptions (Bouckaert and Walle, 2003).

Based on their view that roots of political trust lie outside the political sphere, cultural theories further argue that people who trust each other are more like to cooperate with each other in forming formal and informal connections (Putnam, 1993, 1995). As individuals' attitude of trustworthy are nurtured by the way other individuals interact with him. Interpersonal trust and this heavily personalized interactions lead to an environment favorable to political trust and these features are distinctive of the functioning of the communities (Merzoni and Trombetta, 2012). -

Although recognizing it as exogenous, interpersonal trust helps in working of political institutions as it “Spill over” into cooperation with people in local civic associations and then “spills up” to create a nationwide network of institutions necessary for government (Putnam, 1995). Similarly, Suh et al. (2012) argue that there exists a possibility of interpersonal trust “Spilling up” to trust in institutions and further “Spill over” to trust in other related institutions in South Korea. Lewis and Weigert (1985) argue that trust is a social reality that infiltrates into individuals mind as well as entire institutional structure holding the system together. As most of the citizens in a society can be trusted so government may also be entrusted because it composed of the members, drawn from the society. Parry (1976) explains it as “Political trust is an epiphenomenon of social trust”. Social and political trust depreciate if the consensus among the individual is lacking resulting in an unstable political system. This interplay of political trust and interpersonal trust is causal. Political distrust has significant negative effect on one of the dimensions of social capital i.e., interpersonal trust. The more they disbelief the politician’s and government, the less they trust other people in general too (Schyns and Koop, 2010).

In contrast, institutionalists take trust as endogenous to institutions. They argue that the trust is a rational outcome of economic or institutional performance. Studies find that when authorities act in ways that people experience as being fair, people are more willing to voluntarily accept the authority’s decision (Tyler, 2004). Wang and Wart (2007) find ethical behavior and services competence as a significant contributor in developing trust. The link between government performance and citizens trust in government seems intuitive (Yang and Holzer, 2006). Political trust varies across the life span of any individual and shaped by both early and later experiences with institutions in society. Schoon and Cheng (2011) claim that people who have collected more socio-economic, instructive and motivational assets for the

duration of their life course convey higher levels of political trust than those who have lesser assets.

Nonetheless, ample definitions of trust can be found in the literature, but for the purpose of this research, Borum (2010) defines it as “a willingness to accept vulnerability or risk based on confident expectations regarding another person’s behavior, is important to many human interactions, particularly in contexts of limited information or high consequences for a betrayal of trust”. Miller and Listhaug (1990) define “trust in government” as “citizens expectation about the system and political incumbents to be responsive, honest and competent, even in the absence of constant scrutiny. Similarly, trust in government is taken as a general public assessment of government’s existing privilege to be in a position to enforce its policy decisions on individuals and firms. Feldman (1983) defines it as “General satisfaction with government performance”.

Trust in government is a set of multiple common and divergent factors across the globe but the factor directly linked with general public are their personal and practical experiences with these institutions. When these experiences are largely positive, they inclined toward more trust on the government (Kumlin, 2002; Rothstein and Steinmo, 2002). Decline of trust in government may be tied to lower levels of citizens satisfactions with services delivery (Bouckaert and Van de Walle, 2001).

Similarly, Liu and Raine (2016) provide insight both on trust pattern of public trust in local and federal governments in China (Salim et al., 2017). The key findings are that the greater is the level of authority and power available to those governing roles, the higher will be the level of public trust they are likely to enjoy. In the same line, Li (2004) observes that in rural areas of China most of the respondents seems to have more trust in higher level of government than in lower levels and the difference between them is the authority of the central

government. That is why central government in China is more trustworthy than local governments. The more people are satisfied with the services provided by the government at various level, the more they will put their trust on them.

On the other hand, Morgan and Pelissero (1979) argue that local government is easily accessible therefor pressure from the public about the services provision that are in line with the local government taxes exist on high demand and this pressure is felt more intensely. Trust is considered as one of the most important factors for influencing public perceptions about government and encouraging them for their participation. Suh et al. (2012) find a positive relationship between perceptions of institutional performance and trust in institutions while partially supporting the theories of advocating the importance of interpersonal trust for institutional trust.

Similarly, expectations and indeed, perceptions of how a certain service is performing do not only originate from individual level citizens-service interactions but social interaction also influences what citizens will expect from services (Bouckaert and Walle, 2003). There are lot of factors that have an influence on trust, However, we discuss here based on their relevancy with our objectives.

#### **2.1.1. Public Service Delivery and Trust**

As a general idea, citizen trust an administration to “do the right thing”. This trust does not allude to the individual’s state of mind toward a particular assignment in a particular department. Rather, it is more extensive feeling of open belief that authorities are bearing and maintaining their ethical, societal and trustee commitments. The double crossing of such responsibilities by the authorities frequently prompt confounded, detached or furious citizens,

and more regrettable, the possible demolition of trustee's fundament that shapes the standard of human society.<sup>6</sup>

The authority of the government is justified by the support from the public, since building the institutional trustworthiness of government can lead citizens to be cooperative and compliant with policies implemented by the government (Kim, 2005). When citizens are satisfied with the public services delivered by government, they are likely to trust the government. Many studies maintain that citizens satisfaction with the quality of public service is a key determinant of citizens trust in government (Citrin and Green, 1986).

Through utilizing data from general mass survey of Norwegian citizens in 2001, Christensen and Laegreid (2005) also find that a high level of trust on one government institution leads to extend this trust on other institutions that is, spilling over of trust. People who are more satisfied with public service delivery generally have a higher level of trust in public institutions than citizens who are dissatisfied. Public services delivery is a major factor for influencing the citizens satisfaction in South Africa. Extracting benefits from the public services delivery improves the satisfaction level of the public (Akinboade, Kinfack and Mokwena, 2012; Morgan and Pelissero, 1979). The negative image of government and public administrations is said to be consequences of the way such administration function. Better quality public services are supposed to lead satisfied users, which will in turn increase trust in government (Bouckaert et al., 2002; Stoyan, 2016; Kim, 2010).

Similarly, government legitimacy, its efficiency and credibility influence citizens perceptions. We should remember citizens are rational so the way they look at the government activities, its functions and its ability to efficient utilization of the resources affects their

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<sup>6</sup> "Achilles in Vietnam: combat trauma and the undoing of character".

perceptions. Public involvement in policies is higher where benefits are directly linked to general public and this participation is a proof of their trust over the government. Further this participation increases the credibility of the government among the public. Mangum (2012) says that if citizens believe that the government enacts policies that they favor than they should be more likely to trust government than those citizens who believe that government is not pursuing policies they favor. Therefore, consistency of the policies produced by the government with the expectation or preferences of citizens is a primary seed to foster the trust on institutions.

Walle and Bouckaert (2003) say the implicit hypothesis on which this strategy built is that better performing public services will lead to increased satisfaction among their users, and this, in turn, will lead to more trust in government. However, this has some flaws as well. There might be other factors too than services quality that determine user's satisfaction. There might be causality between perception and trust in government in the sense whether it is low public services quality that leads to an unfavorable evaluation of government is general or whether it is the negative attitude toward government in general that lead people to evaluate the quality of its public services in negative way become more relevant.

Salim et al. (2017) find three main reasons for this lower level of trust in government that are satisfaction with the quality of public services, satisfaction with the transparency of the government, satisfactions with government efforts against corruption. Public service delivery has many values that varies across the nations but values common to all countries are equal treatment of all citizens with respect, fairness and integrity by the public servants, to be impartial and equitable in their actions and to ensure accountability and effectiveness in the delivery of services (Brillantes and Fernandez, 2011). A more efficient, effective and responsible administration may lead to the restoration of trust in public institutions.

Wang (2010) finds argues that citizens satisfaction with the public services delivery they receive such as, education, health care, and public safety matters most in their assessment of government performance. Wang et al. (2009) explain the reasons for the differences of trust on the government in Hong Kong and Taiwan. They explain that institutional factor (government performance, life satisfaction and perception about rights and freedom) appears to be more powerful than cultural factors in explaining disparities of trust on the government in both countries. Performance matters as a determinant of citizens satisfaction (Ryzin, 2004). However, essential services provision by the government such as better education and hospital seem to provide a solid promise for regaining lost political trust and for preventing the collapse of democracy (Ellinas and Lamprianou, 2006). Similarly, Espinal et al. (2006) argue that single most important factor explaining level of trust in govt institution is citizens evaluation of provision of basic services, such as education, health, transportation.

### **2.1.2. Corruption and Trust**

The principles that involve basic aspects of democratic from of government assume that authorities are answerable to its people, that they dispense jurisprudence equally, fairly and reasonably. And the people of that region have approach to political system because of their guileless process. Tyler (2004) says that when people feel that an authority is legitimate, they authorize that authority to determine what their behavior will be within a given set of circumstances. People are more willing to cooperate with legal authority when they believe that those authority are legitimate. When people act based upon their feelings of obligation and responsibility, they are engaging in self-regulatory behavior. When people are dealing with authorities their evaluations of legitimacy are primarily limited to assessment of fairness of authority or institutions procedures. Such procedural justice assessment is consistently formed to be more strongly linked to legitimacy judgements than are the evaluation of their

effectiveness or fairness of outcomes they deliver. One feature that undermines the legitimacy of democratic regime is corruption which diminish faith in political process.

Furthermore, Anderson and Tverdova (2003) argue that countries having higher level of corruption possess the individuals who are more negative evaluators of their performance of political process. Corruption and scandals of incumbent individual are powerful elements of political trust across different segment of the society (Chanley et al., 2000; Bowler and Karp, 2004). While analyzing the origin of generalized trust, Freitag and Buhlmann (2009) find its root going into institutions and their working. They conclude that countries having incorruptible authorities, welfare-based institutions reducing income disparities, have citizens who are more likely to put trust on one another (Meer, 2010).

The perceptions about the trust in government is also related to how efficiently and effectively government provide public services and its outcomes. Citizens distrust in government and its institutions considerably affect the effectiveness and efficiency of public policies and their implementations (Ramesh, 2017). The factor which affects the speed and efficiency of public delivery and trust of citizens toward the government institutions is corruption. A sense of accountability internally and externally can be a factor to reduce these leakages. In case of Pakistan, perceptions about existence of corruption are higher in departments like property registration, contracts, taxation, justice system and policy.<sup>7</sup>

Similarly, Liu and Raine (2016) analyze that perception about existence of corruption among the public officials negatively influence the trust of citizens in government in China. On the other hand, Wang (2016) finds that perception of corruption is negatively related to political trust. Furthermore, evaluation of government performance interacts with perception

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<sup>7</sup> Transparency International Pakistan: National Corruption Perception Survey, 2011.



of corruption negatively to influence political trust in Japan and South Korea (Wang, 2010; Kim, 2010, 2016; Stoyan, 2016). Rose-Ackerman (1999) says that all democratic competitive elections help to limit corruption because opposition leader has an incentive to expose corrupt incumbents. In particular, reform is much easier if the domestic and international business communities believe that they will benefit from reduction of corruption.

However, the breaking down of the trust is easier to accomplish than the building up of the trust. In other words, the impact of bad experience with the public-sector institution is much more pronounced than the effect of positive one (Kampen et al., 2006). So, by raising the awareness about curbing this disease, a strong association between public and public institutions is possible. There is a need to create a sense of accountability with in or out of departments, to raise moral cost of misconduct (Davis, 2004). Educating the citizens about reporting such misconducts, and inefficient public service delivery, does not only help in curbing corruption but also improves the quality of public services (Deininger & Mpuga, 2005; Kim, 2010; 2016).

Similarly, Barr et al. (2009) explain that service providers perform better when their monitors have been elected by the service recipients and that elected monitors puts greater efforts into monitoring to expose expropriations. Torres (2005) says that through the imposition of services charters, Spain is transforming its government more accessible, transparent and open to public. The main objective for adopting these services charters is to enhance trust in government through the introduction of voice mechanism in the monitoring of performance.

### **2.1.3. Economic Performance and Public Trust**

Macroeconomic performance has an important impact on mass political support (Hibbs and Vasilatos, 1981). Parry (1976) concludes that improving government performance is most effective key of building up confidence in it. This confidence can also be enhanced through

advocating the importance of political efficacy by furthering their interests and by creating a mechanism of checking that their interests have indeed been furthered.

Liu and Raine (2016) find that positive perceptions of economic performance are more important in affecting public trust in central government in China. Wang (2016) says that the assessment of government performance is positively associated with political trust. Politicians, journalist and citizens increasingly express their concerns about falling level of trust in government and the detrimental effects this has in government and cohesion of society (Bouckaert and Walle, 2003). Management theories tend to explain the absence of trust in government by referring to poor performance of government. They emphasize that trust can be restored by improving the effectiveness of public institutions and their working that lead to improvement of services quality. Marlowe (2004) says that trust is closely linked to respondent's perception of government performance as well as their confidence in particular institution. Public administrators are simply viewed as cogs within the system. On contrary, measurement of performance can enhance citizens trust in government either through their participation in evaluation process or by improving their perceptions of government performance (Yang and Holzer, 2006).

Similarly, Espinal et al. (2006) indicate that low trust in government institutions is rooted primarily in perception of poor performance by government and suggest that key way to improve institutional trust, thus, is to satisfy basic demands of providing for economic well-being, government services, security and reduced corruption. Ellinas and Lamprianou (2014) find that failure of government in tackling rising debt problem is a primary reason for the loss of trust among Greek citizens over the government institutions.

Stoyan (2016) elaborates the role of performance in developing institutional trust in Haiti and Dominican Republic. They say government performances are particularly powerful

explanations of institutional trust but along with economic performance, there are other elements too i.e., efforts to combat corruptions, provision of security and delivering basic services. Engagement of the public through political parties also influence the level of general trust on the government institutions that is partisan engagement.

#### **2.1.4. Political Affiliation and Trust**

Gershtenson et al. (2006) observe that citizens have greater faith in the party with which they identify and are therefore more trusting of institutions when their party controls them and more trusting of the government as a whole. US election of 2002 provide an excellent example of such a case because Republican's holds the control over senate while Democrats hold lower house and presidency in control. Biggest problem in contributing to loss of political trust is a remarkable growth in cross party hostility in the USA (Abramson, 2017).

Anderson and Lotempio (2002) find that those who voted for the presidential winner were significantly more trusting than those who did not. Similarly, Ramesh (2017) finds that in Sri Lanka citizens those who are affiliated and finds supportive to ruling party tend to have more trust in government. However, Anderson and Tverdova (2003) find the relationship between corruption and political affiliation, they sum up that negative evaluation about corruption of political system is significantly attenuated among supporters of party holding the state office in the USA and other European countries.

#### **2.1.5. Democracy and Trust**

Trust ideally plays a complementary role in democracy. Just as trust is central to positive human relations of all kind so is trust central to the flourishing of democracy (Lenard, 2008). Jamal and Nooruddin (2010) state that the association between trust and democracy is mediated by a virtue of general public living in a freer society. People exercising more democratic rights can be found more trustful and in favor of demand for democracy. Andre (2014) shows that political

trust is seen as an important attribute in contemporary representative democracy. Political trust can cause social trust, foster association life, make the efficient implementation of policy easier. Similarly, Kim (2016) concludes that the level of satisfaction with democratic governance, values and the government's performance in dealing with political corruption, the economy, and human rights are all significantly associated with trust in government. Similarly, In Batswana, Satisfaction with democracy is highly significant factor that shapes the perception of trust in political institutions (Seabo and Molefe, 2017).

Democratic governance also plays a vital role in developing citizens trust in government institutions as found in literature. Wong et al. (2009) find a positive association between democratic rights and political trust in Hong Kong and Taiwan. Likewise, Bauer and Fatke (2014) say in Swiss cantons, trust is higher in cantons where democracy rights are available, but it is lower in canton where usage of these rights is extensive. So democratic rights are important for comparing or analyzing the nature of trust in governmental institutions in any country or between the countries. Similarly, Kim (2016) says that in South Korea such rights are significantly positively associated with the trust while this is not true for China.

However, in most of the Arab countries and African economies, where authoritarian rule or militarily dictatorship exist, a low level of political trust can be seen as a positive indicator for the transition toward a democratic economy. Distrust should be seen as a healthy phenomenon in the context of authoritarian regimes of Arab world. Lower level of trust, especially in such cases can be considered as conducive to a democratic political culture. The course of transition of political culture of societies, making citizens to become more trusting, depend on the legal protection offered by the regimes. As long as, states lag behind the expectation of their citizens we should expect a lower level of trust in these countries as most of the individuals of Arab countries do as compared to the other democratic societies (Jamal,

2007). In emergent democracies like Taiwan, South Korea, Thailand and Philippine political trust is statistically more related to the democratic support and government approval as compared to economic performance (Yap, 2012).

## **2.2. Perceptions, Trust, Tax Morale and Willingness to Pay**

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The process of formation of perception about certain public activities is complex in nature. Individual make complicated inference about the expected outcomes of policies, rely on limited information's available to them and other real-life time constraints. In the formation process of these perceptions individual economic agent take into account a limited number of available information that is limited either by authorities or limited by knowledge required to process the data available to extract information. They also suppose the expected impact of these policies on the other economic agents around them means no more than a sub-sample of actual population. If agents do not take into account, all other important factors required to formulate their perceptions about these policies then these inferences or perceptions will be systematically biased.

Cruces et al. (2013) find the existence of systematic biases among the individual perceptions in Greater Buenos Aires in Argentina. They argue that these misperceptions induce individual toward self-interest about redistribution policies. They also analyze the impact of providing full information to these individuals about their perceptions and how they altered their rationality after having excess to such information. Political, economic elites (Acemoglu and Robinson, 2000), income gap (Yamamura, 2015) and ideological differences (Rudolph and Evans, 2005) among individuals also play their roles in forming the perceptions about public policies.

However, perceptions also depend on the intertemporal choice of the people. Impact of future income expectations (Prospect of upward mobility) and perceptions about the economic

system also has effect on the preferences for income redistributions (Alesina and La Ferrara, 2005; Benabou and Ok, 2001). Romer (2003) provides theoretical justifications about how misconceptions or limited information about public policy brings inefficient outcomes in political process. Knowledge about the particular problem for which participation of the citizens required, is important in determining their preferences (Ertor-Akyazi et al., 2012).

#### **2.2.1. Trust and Willingness to Pay**

Policy makers are interested in tax compliance for two reasons: its revenue implications and for equity concerns. A fall in government revenues attract policy makers to alleviate this problem. This is particularly noticeable when government faces poor fiscal conditions such as serious fiscal deficit and global economy recessions. Policy makers also concerns about non-compliance behavior due to equity grounds (Palil and Mustapha, 2011).

The role of the government is multifold, public services delivery is one of them. To perform its operations and efficient provision of the public services, government incur a cost. This cost is partially finance by the productive resources or through the taxation framework. The government cannot render all these services without obtained from citizens in the form of taxations (Henderson, 1908). Therefore, it is fair to say that citizens have to pay the cost for the services they have received. Welch (1985) argues that there exists high support for the expansion of public services and most of the citizens are ready to pay to raise additional revenues for this expansion or to restrain current level of public services (Beck et al., 1987) but citizens insist that government should also play active role to eliminate this funding problem by altering the composition of revenues or public spending. As most of the public services exist to compensate low-income groups for their inability to acquire these services so demand for public services is higher in poor segment of the society than their counterparts. Therefore,

Alozie and McNamara (2009) argue that poor population are more willing to pay to procure for the public services than their counterparts.

However, as people are more concerned about the seriousness of the government to eliminate public problems, therefore, there exist strong evidence about the perceptions of trust in government and citizens willingness to pay. Means the behavior of tax payers is contingent on the perceived activities of the government and these perceptions about the government seriousness act as intrinsic motivational factor for citizens participation (Alm and Torgler, 2006).

Trust is main ingredient along with knowledge about government functioning (Saad, 2012) of making perceptions about government (Ahmed and Kedir, 2015) for the tax behavior (Pickhardt and Prinz, 2014). Trust in institutions is highly affiliated with resistance to paying taxes. Limited willingness to pay taxes is one particular case of a more general phenomenon of low citizens engagement in Latin America. This limited engagement with institutions can be seen in several ways reflecting unwillingness to enter into dealing with state as economic actor, as service recipient and as tax payers.<sup>8</sup> Trust in government institutions improves the willingness of the citizens to pay taxes but its importance increases if we also incorporate the importance of power of authorities (Masud et al., 2014; Lisi, 2014) because Tax payers need both “stick and carrots” as an incentive to oblige the framework and pay taxes in full on time (Cowell, 2004). Yang and Holzer (2006) say without trust, citizens seem less likely to comply to paying tax and invest in the work of government.

Similarly, Slemrod and Katuscak (2005) find that on average, the payoff to being trustworthy increases with the average level of trust in a given country therefore as compared

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<sup>8</sup> The day after tomorrow: A handbook on the future of economic policy in developing world (2010).

to European countries, individuals in United States have higher tax morale (Alm and Torgler, 2006). Countries with a high proportion of trusting citizens tend to have a higher per capita income and to grow faster. The more trustworthy people supposed government to be, the more likely they are to obey with or even consent to its demand and regulation. Government officials who act in a trustworthy manner are more likely to elicit compliance (Levi and Stoker, 2000).

Birskyte (2014) provides evidence that there is a positive relationship between the trust in government and tax compliance. Tax payers are motivated to pay taxes if they trust the government. However, if tax payers do not believe that the government is representing their interests, and not the interests of the selected few, they are less likely to pay their taxes correctly and on time. Trust is also based on the belief that government does “the right thing” most of the time and that the nation’s representatives do not waste tax payers’ money. Citizens need to perceive an equal exchange in order to honor their part of the larger social contract with the government. Salim et al. (2017) quote that the absence of trust in government generally create citizens who do not want to pay taxes and who do not obey law and makes necessary cost increments for improvement in the number of monitoring and enforcement system (Tyler, 2004). Sun et al. (2006) finds that citizen who trust the government, are more willing to share the cost of reducing air pollution in China.

Similarly, an individual tax payer is influenced strongly by his perceptions about the behavior of other tax payers. If they have good perception, means, they consider other as tax payers, tax morale will be higher (Frey and Torgler; 2007). Scholz and Lubell (1998) argue that both, trust in government and interpersonal trust significantly influence tax compliance, even after controlling for the influence of any internalized sense of duty and of self-interested fear of getting caught.



Martinez-Vanquez and Alm (2003) suggest that there exist two paradigms for encouraging tax compliance. Under the first paradigm, Tax payers are viewed and treated as potential criminals, and the emphasis is exclusively on repression of illegal behavior through frequent audits and stiff penalties. This has been the conventional paradigm of tax administrations through history, and it fits well the standard economic model of tax evasion based on the economic theory of crime. Alm and Torgler (2006) say tax enforcement by considering all as tax cheater seems no longer adequate. A second paradigm recognizes the role of enforcement, but also emphasizes the role of tax administration as a facilitator and a provider of services to tax payer-citizens.

As we have discussed earlier, role played by institutions acts as factor for enhancing citizens willingness to pay. Similarly, another important factor that boost this willingness to pay is knowledge about the problem and dangerous attributes associated with. Dong and Zeng (2018) explore 80% of the respondents are willing to pay to government to eliminate smog based upon the better understanding of the problem among the masses. Education level is important but public attitude toward the government efforts in tackling the problems also boost their participation. Similarly, Adaman et al. (2011) confirm, in case of Turkey, that willingness to pay is highly correlated with educational level and information about the problem. However, trust in government institutions is also a significant driving force for the public to participate in the program or not. Material security and perceptions about other citizens participation also matters (Yang et al., 2014).

Earlier, we have incorporated studies that linked trust in government with willingness to pay. Here, we highlight some studies that try to bridge relationship between satisfaction from services delivery and willingness to pay for these services without mentioning role of trust. Glaser and Hildreth (1999) argue that irrespective of positive nexus between satisfaction with

public service delivery and willingness to pay, there exit citizens who are not gratified with the government performance but still they think as an obligation to support government through taxation but the tend to see their government, as responsive, efficient and trustworthy to honor citizens values and preferences. Fiscal tradeoff is a necessary element of willingness to pay, as perceptions about the tradeoff of paying tax and what a citizen expects to get in return are highly correlated. Level of satisfaction from a public service delivery determine the perception about the quality of public service delivery. People are avoiding to oblige their duty of paying tax because they are discontent with what they expect and what government and its official are providing in return (Fjeldstad and Semboja, 2001; Ebdon and Franklin, 2006).

### **2.2.2. Trust and Tax Morale**

Tax morale is embedded in a broader cultural of the country and depends upon its political & legal institution. Torgler and Alm (2004) define “Tax morale” as the intrinsic motivation to pay taxes that’s depend upon trust in government. They found that there is significant positive relationship between tax morale and trust in legal system and trust in parliament. Cheating in government is found less justifiable in societies with a greater degree of trust in government and its institutions.

Similarly, Lago-Penas and Penas (2010) find tax morale is shaped by socio-demographic, characteristics, personal financial experience and political attitude (Cumming et al., 2009). It is positively related to age, religion, satisfaction with democracy, trust. On contrary it is negatively related with ethnic fractionalization and compliance. The tax payer’s behavior depends not only on the behavior, motivation and intension of other individual, but also of the government itself (Martinez-Vazquez and Torgler, 2009). If citizens believe that the government will act in their interest, that its procedure are fair and their trust in the state and other is reciprocated are more likely to become “contingent consenter” who cooperate in paying

taxes even when their short-term material interest would make evasion the best option (Alm et al., 1992). Similarly, Glaser et al. (2004) find that citizens are most likely to become willing to pay taxes if government can demonstrate that strategic investment are consistent with community and enlightened self-interest. So, we would expect that if the parliament is seeming to be acting in a trustworthy way, tax payer's trust in the state increases and so would their willingness to comply with their tax obligations.

Similarly, Torgler (2004) suggests that trust, measured as trust in the legal system, the govt, the parliament, and national officers, has a strong impact on tax morale. Furthermore, a higher degree of satisfaction with political system leads to a higher tax morale in transition countries. Torgler (2005) finds in Latin America, trust in institutions and on officials have positive effect on tax morale. However, tax burden, lack of honesty and corruptions are main reasons for tax evasions and lower tax morale.

Torgler (2005) says that citizens will give more support to a state, which in spending tax revenue respect their preferences than to one acting as leviathan. Their motivation to pay taxes and then tax morale is enhanced. The finding suggests that direct democracy rights have significant positive effect on tax morale. For example, if trust in government decreases, as has occurred in the United States and in other countries over last decades according to opinion polls,<sup>9</sup> the decrease of tax compliance level imposes a constraint on the activities of government institutions requiring a more intrusive and costly enforcement strategies. A democratic government can ensure high tax compliance which minimizing tax enforcement costs.

As we witnessed in literature, trust foster the revenues collected by the government by flourishing willingness to pay for the taxes. What can we expect if government is more

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<sup>9</sup> American national election studies, 2012 and Edelman trust barometer 2012.

distrustful? In a democratic state, legally can they avoid taxes? No, they cannot do it. Even if they intend to do, institutions or legal authorities will not let them do it. Citizens have two possibilities to express their distrust: exit and voice. Ulbig (2008) finds that perception of voice and their influence do indeed have an impact on feelings of political trust and policy satisfaction. There are only limited capabilities for exit in a government context: Citizens can move because of tax presence from one locality to other or they can abstain from voting. Lower turnover in Greek election of 2012 is an example of distrust in government for solving economic problems (Ellinas and Lamprianou, 2014). However, Manion (2006) finds that voting participation do better at promoting the trust of ordinary Chinese villagers in their leaders and lack of trust often lead to alternatives candidates (Hetherington, 1999).

Though, possibilities for voice are more widespread (Complaint, letters, demonstration). The increase used of satisfaction surveys is one way for intercepting or even channeling this voice (Bouckaert and Walle, 2003; Bouckaert et al., 2002). To the extent people can trust government they are likely to comply willingness to give their behavioral consent. Distrust is supposed to lead a loss of legitimacy of government, which make it difficult for the government to make people to obey the law and pay tax. A decrease in willingness to pay tax may be due to a general distrust in government, but can also, and we refer to performance hypothesis, be due to observation that government agencies spoil money by not being efficient.

However, in special cases, loss of this legitimacy often leads to conflict like Malakand division in Pakistan. A lot of factors contributed in the emergence of this conflict, poor quality of governance and poor mechanism of delivering services led to economic-social disparities and scarcity of the resources. This led to support from poor and deprived class to the militants.<sup>10</sup>

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<sup>10</sup> UNDP, Pakistan (2012) "Perception survey on reconciliation in Malakand Division".

Insurgencies in this area is linked with unemployment, income inequality, concentration of wealth in few hands, social exclusion of the lower class from mainstream activities, poor educational quality, health care and other essential facilities as the major causes of conflict (Zafar, 2011). After findings the evidence in favor of what Engels propagated “Criminals emerge from lower class of society”, they recommend activities that should be on agenda of policy makers to reinstate trust in government i.e., legal or political reforms, security, justice, effective and transparent delivery of basic services, enhancing employment opportunities.

Furthermore, Uslaner (2003) says that trusting public will also produce more responsible government and more likely to adopt policies that will promote economic equality and thus create trust. Societies do not become trusting because they are more democratic, they become trusting because they distribute their resources equally. Comparatively, high level of income equality escalates the positive impetus that satisfaction with one’s quality of life has on generalized trust (Freitag and Buhlmann, 2009). On the other hand, Hutchison and Xu (2016) explore that in developed provinces of China individual income level have a positive effect on trust while opposite effect in less developed provinces. They further say that individual living in provinces with higher level of income inequality tends to be less trusting of government institutions. In summarizing above discussion, we argue that trust is a major factor that differentiate the John Locke concept of government from Thomas Hobbes’s “Leviathan”. Perry (1976) explains it as “mutual trust favor’s polyarchy and public contestation while extreme distrust favor’s hegemony”. Easton (1965) argue that diffuse support by the public for government is important for its efficient working and trust flourish this diffuse support. There prevail two theories about the origin of trust i.e., Cultural and Institutional theories (Mishler and Rose, 2001). Both of these theories are interlinked, explained by the Putnam (1995) as interpersonal trust originated by the individual cultural factors “spill up” to

trust in institutions and further “spillover” to other related institutions. There are a lot of features that play important roles in spilling up and over of trust on institutions i.e., public service delivery (Citrin and Green, 1986), Corruption (Anderson and Tverdova, 2003), perception about economic performance (Liu and Raine, 2016), Political affiliation (Gershtenson, Ladewig and Plane, 2006) and satisfaction with democratic rights (Kim, 2016). This trust on institutions also helps in obtaining the objective of public policies and to share the cost of providing certain services if demanded by the government or its institutions (Beck et al., 1987).

We identified various gaps in existing literature that really need to be addressed. This study fulfills the gap by exploring the perceptions of individuals toward public institutions and its impact on taxation policies outcomes in Pakistan. This topic is highly attracted in a scenario where IMF and world bank forcing Pakistan to increase its tax base for more availability of the financial resources to tackle rising external debt problem and on other hand, Pakistan has declared a vast area, like Malakand Division, FATA, Gilgit-Baltistan, and different areas of Baluchistan, as tax free zones since independence and people of this area are acting as free riders. This study is first of its kind in Pakistan which try to address these objectives. It helps us to analyze whether, value, social norms, attitude which are different across the regions, nations, countries, have significant effect on economic behavior, decisions and in trusting behavior of people.

It explains the factors in the formation process of agent’s expectation about outcomes of a certain policy (Zafar, 2011). Unavailability of certain public services or low level of satisfaction with these available services may rise to low level of public trust toward institutions. There prevail two main theories that explains the origin of trust that are cultural and institutional theories and there exist a lot of favoring arguments in support of each theory.

In this study, we employ a combination of variables which explains each of these theories and we will examine the relative strength of each theory for Pakistan.

This study makes significance contributions to the literature by filling the gap to explore the relationship between public services delivery, trust, tax morale and their impact of willingness to pay for taxes. The existing studies on the subject analyzed individual level relationship for instance public services delivery and trust nexus, trust and tax morale, tax morale and willingness to pay nexus or willingness to pay and public services delivery nexus. However, no study has been carried out to analyze the interplay of these all variables by simultaneously incorporating. We observe the mediating role played by trust and tax morale in relationship between satisfaction with public services delivery and willingness to pay for taxes. We also formulate a theoretical model followed by an econometric model to support our arguments.

This study makes another significant contribution to the literature by filling the gap to explore the role of certain social factors as a mediator for the relationship between satisfaction with services delivery and trust. These social factors include educational level, religious integration, community engagement, social capital and level of interpersonal trust.

This study is also different from earlier on this subject which were about people readiness to pay for the provided or improved services in areas where government has already enacted taxes on these services or has imposed some other form of taxes. But in this study, we shall analyze the WTP taxes in areas where economic agents are reaping out benefits of available public services. But government has not enacted any form of taxes in these areas and economic agents of these areas are acting as free riders on the taxes collected from other parts of the country.

## Chapter 3

# Methodology and Data

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### 3.1. Introduction

This chapter presents the proposed methodology to be followed for analysis. In this association, first Section (3.2) of the chapter presents theoretical foundations that link public services delivery, trust, and WTP taxes. Based on this theoretical framework, next, Section (3.3) presents empirical models that we have estimated. Section (3.4) shows the construction of the variables used in our study and their definitions. Next, Section (3.5) presents data collection and sources followed by Section (3.6) which illustrates sampling technique and sample size. Last, Section (3.7) demonstrates the econometric techniques used to estimate our empirical model.

### 3.2. Theoretical Framework

There exist two approaches in order to identify WTP for the public services that are direct approach and indirect approach (Haq et al., 2007). We utilize method of the direct approach to theoretically link willingness to pay taxes with trust in government. It is a method of estimating the economic value of public services through survey questions that brings out individual preferences regarding such services (Carson and Mitchell, 1993).

Public services are not being traded in market; therefore, non-market valuation method is required to find WTP for these public services deliveries. Individuals have preferences for goods (private and public goods) that are represented by utility functions. Individuals want to maximize their utility from quantity and quality of both types of goods given his economic, legal and physical constraints.

Considering the underline background, the utility function takes the form,



$$U = u[x_i, g_i, \alpha(q_{gi})] \quad (3.1)$$

where  $x_i$  composite of all market goods,  $g_i$  represents public services,  $q_{gi}$  is quality of public services,  $\alpha$  is a trust factor between citizens and government. This utility function satisfies the basic standard assumptions that is rationality, convexity, monotonicity and continuity. This propagate that individual are rational means they can rank and compare any bundle of goods and services according to level of satisfaction attained from bundle of goods. The axiom of convexity implies that if  $U(g_i) \geq U(x_i)$  then  $U(tg_i + (1-t)x_i) \geq U(x_i)$  for all  $t \in [0,1]$ . Defining it alternatively, a mix bundle of both public and private good provides more utility than a bundle that consists of a single public or private goods. Similarly, preferences are monotonic if two bundles  $g_i$  and  $x_i$  satisfies,

$$\left. \begin{array}{l} x_i \geq g_i \text{ for each } i \\ x_i > g_i \text{ for some } i \end{array} \right\} \text{ implies } U(x) > U(g). \quad (3.2)$$

Further, we assume that public services affect utility level in a direct and indirect way such that first, utility level get affected as a result of direct consumption of public services and secondly, utility is assumed to be get affected through a trust factor that is a function of the quality of public services which he or she consume.

In terms of expenditures that incurred on both private and public good, an indirect utility function can be expressed as

$$U^*(P_x, t_g, M, \alpha) = \max\{U(x_i, g_i, \alpha(q_{gi}) | P_x x_i + t_{gi} \leq M\} \quad (3.3)$$

$$= U(x^*, g^*, \alpha(q_{gi}))$$

$$= U(D_x(P_x, t_g, M), D_g(P_x, t_g, M), \alpha(q_{gi})) \quad (3.4)$$

From the indirect utility function, we can derive expenditure function as

$$v = U^*(P_x, t_g, M, \alpha) \Leftrightarrow M = M^*(P_x, t_g, v, \alpha) \quad (3.5)$$

Hence, the expenditure function is given by,

$$M^*(P_i, t_i, \alpha, v) \quad (3.6)$$

where  $P_i$  is vector of prices of all the private goods,  $t_i$  is the tax rate and represents the prices of all the public services,  $\alpha$  is the trust factor and  $v$  show the utility level. Expenditure function measures the minimum amount of money the consumer must spend to acquire the given level of utility. Expenditure function is increasing in  $P$ ,  $t$  and  $U$  but decreasing in  $\alpha$ .

In the short run income level of the economic agents remains fixed but they have power to alter the nature of expenditures they made to stay at least on same utility level if some factors force them to change their living standard. They will try to minimize their expenditures to maintain a fixed level of utility.

This minimum expenditure problem can be shown as follow;

$$M^*(P_x, t_g, u, \alpha) = \min\{P_x X + t_{gi} | u[x_i, g_i, \alpha(q_{gi})]\}$$

OR

$$\min_{x_i, \dots, x_n} ((\sum P_i x_i) + (\sum t_i g_i)) \text{ s.t } \bar{U} = u[x_i, g_i, \alpha(q_{gi})] \quad (3.7)$$

The above minimization problem can be solved by using langrage multiplier to obtain Hicksian Demand for corresponding goods.

The Hicksian demand is given as;

$$h_i = h_i(P_i, t_i, \bar{U}) \quad (3.8)$$

Minimum expenditure function can be obtained by substituting the value of Hicksian Demand for corresponding goods into expenditure function:

$$e^* = e(P_i, t_i, \alpha, \bar{U}) \quad (3.9)$$

where  $e^*$  is minimum expenditure, required to achieve desired utility level ( $\bar{U}$ ) using trust level of general public toward government, which is the function of prices of private ( $P_i$ ) and public services ( $t_i$ ), trust over institutions and fixed level of utility.

The derivative of expenditure function w.r.t prices gives Hicks compensated demand function for corresponding good under consideration

$$\partial e / (\partial P_i) = h_i(t_i, \bar{U}) \quad (3.10)$$

WTP for a change in public service is integration of marginal WTP to achieve public services from  $g_i$  to  $g_i^*$ .

$$WTP = - \int_{g_i}^{g_i^*} \partial e(g_i, \bar{U}) / \partial g_i \cdot dg_i \quad (3.11)$$

WTP is the maximum amount of money economic agent would give up in order to enjoy an increase in  $g_i$ .

Similarly, WTP for a change in trust due to a change in quality of public service is an integration of marginal WTP to achieve trust level from  $\alpha$  to  $\alpha^*$ .

$$WTP = - \int_{\alpha}^{\alpha^*} \partial e(\alpha_i, \bar{U}) / \partial \alpha_i \cdot d\alpha_i \quad (3.12)$$

WTP is the maximum amount of money consumer would give up in order to enjoy an increase in  $\alpha$ .

$$WTP = e(P_i, t_i, \alpha, \bar{U}) - e(P_i, t_i, \alpha^*, \bar{U}) \quad (3.13)$$

where  $\alpha$  is a lower level of trust due to the perceptions about the quality of the public good and  $\alpha^*$  is improved level of trust using improved satisfaction with the quality of public good. The difference in expenditure is either compensating or equivalent surplus, if the reference level of utility is initial, it is compensating and if reference level of utility is final good then it is equivalent surplus.

The simpler version of relationship between willingness to pay taxes and trust in government expressed in equation (3.13) but this reflects one side of the picture. A broader perspective is depicted with the help of literature review which show other determinants too that might have effect on WTP taxes i.e., Tax morale, education, social integration, prospect of upward mobility, and ability to pay taxes. Trust in government has to play a vital role into our research process therefor it is imperative to engage ourselves into observing factors that might alter this level of trust of individuals. As highlighted in literature review, a lot of determinants are found to date that might have country specific effects on trust level i.e., Economic performance of country, satisfaction with public services delivery, availability of democratic rights, proud of nationality, social capital, prevailing inter-personal trust, civic engagement, partisanship etc. Keeping in view above factors a rigorous empirical model and analytical framework is presented to capture the effects of various determinants of WTP in upcoming sections.

### 3.3. Empirical Models

Based on the above theoretical framework, the following empirical models have been developed. To analyze the trust in governments and its determinants the following model has been estimated.

$$TG_i = \beta_1 + \beta_2 SPS_i + \beta_3 EE_i + \beta_4 DR_i + \beta_5 CV_i' + \gamma DM_i' + e_i \quad (3.14)$$

where,  $TG_i$  denotes the level of  $i^{th}$  economic agent's trust in government or its institutions.  $SPS_i$  is the variable of interest, which capture the satisfaction level of economic agent with the public service delivery.  $EE_i$  is perception about economic efficiency of government of the  $i^{th}$  economic agent.  $DR_i$  is the  $i^{th}$  economic agent satisfaction from the democratic rights.  $CV_i$  is a vector of control variables namely corruption, political efficacy, social and interpersonal trust, civic engagement or social capital, partisanship and other related political factors.  $DM_i$  is vector of demographic variables, includes age, gender, educational level, income level, type of employment, ethnic diversity, area.  $e_i$  is stochastic error term which captures the effects of all excluded or unexplained variables.

Similarly, in order to analyze the relationship between trust in government and the tax morale, we developed the following empirical model

$$TMO_{ij} = \beta_1 + \beta_2 TG_{ij} + \beta_3 CRP1_{ij} + \beta_4 REDIST_{ij} + \beta_5 INCOME_{ij} + \beta_6 DEMOCRACY_{ij} + \beta DM_{ij} + \gamma CV_{ij} + e_{ij} \quad (3.15)$$

The dependent variable is tax morale of  $i^{th}$  economic agent living in  $j^{th}$  region ( $TMO_{ij}$ ).  $TG_{ij}$  is level of the  $i^{th}$  economic agent's trust in government or its institutions.  $CRP_{ij}$  represents satisfaction level of the  $i^{th}$  economic agent with government efforts in curbing corruption.  $REDIST_{ij}$  is the perceptions of  $i^{th}$  economic agent about income distributions in Pakistan.  $INCOME_{ij}$  is the income level of  $i^{th}$  economic agent living in  $j^{th}$  region.  $DEMOCRACY_{ij}$  is the satisfaction of  $i^{th}$  economic agent living in  $j^{th}$  region with democracy in country.  $DM_{ij}$  is a vector of demographic variables namely Marital status ( $MARRIED_{ij}$ ), age ( $AGE_{ij}$ ), joint family ( $J.FAM_{ij}$ ), gender ( $MALE_{ij}$ ) and level of education ( $LEDU_{ij}$ ).  $CV_{ij}$  is vector of control variables, includes unemployment ( $U.EMP_{ij}$ ), political affiliation

( $RP\_CAP_{ij}$ ), available sources of income ( $SOI_{ij}$ ), and satisfaction with economic conditions of country ( $CEC_{ij}$ ). Whereas,  $e_{ij}$  is stochastic error term which captures the effects of all other unexplained variables.

Similarly, following model depicts the relationship between trust in government and willingness to pay for the public services.

$$\begin{aligned} WTP_i = & \beta_1 + \beta_2 TG_i + \beta_3 CRP1_i + \beta_4 REDIST_i + \beta_5 INCOME_i \\ & + \beta_6 DEMOCRACY_i + \beta_7 DM_i + \beta_8 CV_i + e_i \end{aligned} \quad (3.16)$$

only difference between model 3.15 and 3.16 is dependent variable i.e., tax morale and willingness to pay for services, respectively.

Similarly, in order to analyze the channels through which different variables might affect tax morale, we developed following empirical model based on generalized structural equation model.

$$TG_i = \alpha_0 + \alpha_1 INS_i + e_i \quad (3.17)$$

$$TMO_i = \beta_0 + \beta_1 INS_i + \beta_2 TG_i + dCV + e_i \quad (3.18)$$

The dependent variable in equation (3.17) is trust in government ( $TG_i$ ).  $TG_i$  is level of the  $i^{th}$  economic agent's trust in government or its institutions.  $TMO_i$  represents tax morale of the  $i^{th}$  economic agent. Where,  $INS_i$  is our institutional variable (Satisfaction with public services, economic efficiency, unemployment, income-level, and corruption) of the  $i^{th}$  economic agent utilized one by one in the estimation.  $CV_i$  is the vector of controlled variables i.e., Education (LEDU), Gender (MALE), Income level, Redistribution preferences (REDIST), Unemployment, Sources of information (SOI), Joint family (J.FAM).  $e_i$  are the stochastic error terms which captures the effects of all other unexplained variables. Through generalized

structural equation, equation (3.17) is estimated with OLS and (3.18) is estimated using ordered probit estimation techniques.

### 3.4. Definition and Construction of Variables

In this section, we define the variables used in the study, their rationale and construction. Most of the constructed variables are multi factors which are weighted using principal components analysis (PCA). One of the primary purposes of PCA is to explain the variance of observed data by utilizing a few linear combinations of original data set. PCA based aggregation can be described as follow. Suppose we construct a public trust indicator by utilizing responses of N individuals, obtains through survey, about different public administrative entities/bodies. Here, measured responses have same scale i.e., 1(Lowest) to 5(Highest). A small number of variables (Principal Components) can capture a large proportion of the variations of the original N variables. Further, the P number of principal components can retain a high amount of the variability of the original variables even when  $P < N$ . However, the maximum number of the principal components can be N.

$$\begin{aligned} Z_1 &= \alpha_{11}M_1 + \alpha_{22}M_2 + \dots + \alpha_{1N}M_N \\ &\vdots \\ Z_N &= \alpha_{N1}M_1 + \alpha_{N2}M_2 + \dots + \alpha_{NN}M_N \end{aligned} \quad (3.19)$$

where,  $M_i$  is the response of individual about a factor i,  $Z_i$  is the  $i^{\text{th}}$  principal component and  $\alpha_{ij}$  is a weight assigned to that  $i^{\text{th}}$  factor of individual j in principal component i.  $\alpha_{ij}$  is also termed as components or factor loadings and is chosen is such a way that the principal components satisfy the following conditions

- (a) The principal components are uncorrelated (orthogonal)
- (b) The first Principal component explains the maximum proportion of the variance of the variables. The second principal component explain the

maximum of the remaining variance and so on. All the remaining variances are accounted by the last component. Further,

$$a_{i1}^2 + a_{i2}^2 + \dots + a_{iN}^2 = 1 \text{ and } i = 1, 2, \dots, N \quad (3.20)$$

PCA involves tracing the eigenvalues which requires covariance matrix. So, the sample covariance matrix CM can be expressed as:

$$CM = \begin{pmatrix} cm_{11} & \dots & cm_{1N} \\ \vdots & \ddots & \vdots \\ cm_{N1} & \dots & cm_{NN} \end{pmatrix} \quad (3.21)$$

where,  $cm_{ii}$  is the value of public trust index of individual  $i$  and  $cm_{ij}$  is the covariance of public trust of individual  $i$  and  $j$ , where  $i \neq j$ . The eigen values of matrix CM shows variance of the principal component and can be obtained by showing the characteristic equation which can be obtained from

$$|CM - \lambda I| = 0 \quad (3.22)$$

where  $I$  is the identity matrix of the same order as that of CM and  $\lambda$  are the vectors of eigenvalues (Hashmi and Bhatti, 2019).

#### 3.4.1. Trust (TG)

However, there is no single and undisputed indicator for trust. A number of surveys, among others the Belgian General Election Study (BGELS), and the European Value Studies (EVS), ask for trust in a direct way. Whereas the American National Election Study uses five-items to construct political trust and political distrust. The Swedish Society, Opinion and Media Institute survey (SOM), using the following in order to capture trust:

- How much trust do you have in the way the parliament is conducting their work?
- How much trust do you have in the way political parties are conducting their work?



Using a single item trust question does not give any indication of possible reasons for distrust, and perhaps a combination of affective and cognitive measures of both specific and diffuse support is the best way to deal with mixed and intangible attitude of citizens towards the political system. Hence, a multi-disciplinary approach involving not only public administrations, but also political culture, social communication and social psychology is necessary (Bouckaert and Walle, 2003; Bouckaert et al., 2002).

Following Christensen and Laegreid (2005), we used a general trust variable which constructed as an additive index based on different variables. The dependent variable – trust in government – is based on a direct question about trust in various political, administrative actors and institutions. For each of these categories the respondents were asked to evaluate their level of trust on a scale from 1 (Do not trust at all) to 5 (Fully trust). The question we asked for each actor is “I am going to take name and you have to tell me How much trust do you have in a way the following actors conducting their work?”. By extending their approach we look at trust in nine different actors and institutions: the parliament, prime minister, president, political parties, provincial government, judiciary, politicians, army, intelligence organizations, civil services.

**Table 3.1 a: Summary Statistic of Factors of Trust in Government**

Variable	Obs	Mean	Std. Dev.	Min	Max
TG1	1,604	2.9776	1.2836	1	5
TG2	1,601	3.1562	1.3631	1	5
TG3	1,603	3.2970	1.3236	1	5
TG4	1,605	2.5489	1.3001	1	5
TG5	1,600	3.1519	1.2419	1	5
TG6	1,596	3.0533	1.2252	1	5
TG7	1,589	3.2454	1.0939	1	5
TG8	1,590	3.7132	1.2471	1	5
TG9	1,598	2.5626	1.2654	1	5

**Note:** TG represent trust in government and corresponding number from 1 to 10 show the number of questions we asked about trust.

Table 3.1a shows the summary statistic of the factors used in the construction of trust index, informally just by looking the mean values of the factors we can guess a moderate or neutral level of trust on the institutions or factors. As 1 indicates a no level of trust and 5 represents higher level of trust. However, in most of the cases as shown in Table 3.1a, mean values fall around 3 which denotes a neutral level of trust. The correlation matrix of these factors is shown in appendix<sup>11</sup>. By employing principal component analysis, we retained nine components that are equal to total number of factors (9) and all the components explains full variations (1.00) in the original data set as shown in Table 3.1b.

Table 3.1 b: Principal Components of Trust in Government				Number of obs = 1558
				Number of comp = 2
				Trace = 9
Rotation:(Unrotated = Principal)				Rho = 0.5463
Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	3.6247	2.3321	0.4027	0.4027
Comp2	1.2925	0.3548	0.1436	0.5463
Comp3	0.9377	0.0365	0.1042	0.6505
Comp4	0.9012	0.3442	0.1001	0.7507
Comp5	0.5570	0.0096	0.0619	0.8125
Comp6	0.5474	0.0906	0.0608	0.8734
Comp7	0.4568	0.0813	0.0508	0.9241
Comp8	0.3755	0.0681	0.0417	0.9658
Comp9	0.3075	.	0.0342	1

**Table 3.1 c: Principal Components (Eigenvectors)**

Variable	Comp1	Comp2	Unexplained
TG1	0.36	-0.2093	0.4737
TG2	0.3604	-0.2381	0.4555
TG3	0.3314	-0.0521	0.5984
TG4	0.2968	0.5673	0.2646
TG5	0.3959	-0.0307	0.4308
TG6	0.3772	-0.0443	0.4819
TG7	0.3244	-0.0086	0.6184
TG8	0.255	-0.467	0.4823
TG9	0.2708	0.5946	0.2772

<sup>11</sup> See Appendix A (Table A1) for detail.

Table 3.1b shows that first two components have eigen values greater than 1 and explains almost 54.63% of the variations in the original data set as shown in Table 3.1c. The Kaiser's rule recommends to retain only components having eigen values exceeding 1 as shown in graph given below. So, by taking weighted average of first two components, we constructed a single variable for trust in government.

**Figure 3. 1: Scree Plot of Eigenvalues of Components of Trust**

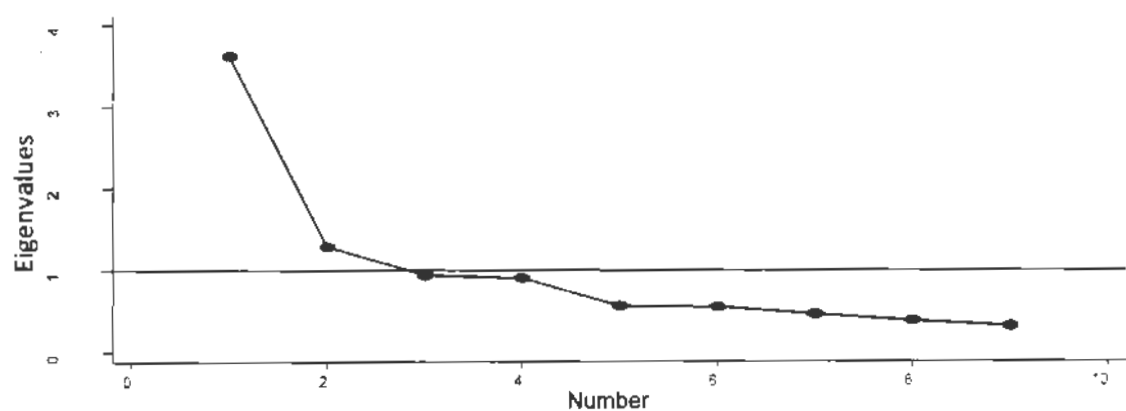


Figure 3.1 shows scree plot of eigen values which indicate that the Kaiser's rule and suggest to retain components having eigen values greater than unity. As only the first two components exceeding unity in eigen values, so we utilize first two components for the construction of

**Table 3.1 d: Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy**

Variable	KMO
TG1	0.8447
TG2	0.8304
TG3	0.8838
TG4	0.8198
TG5	0.788
TG6	0.7769
TG7	0.8942
TG8	0.7258
TG9	0.8831
Overall	0.8045

variable of trust in government.

We follow Kaiser-Meyer-Olkin (KMO) test to determine sampling adequacy for each factor important for component analysis as shown in Table 3.1d. The values of KMO test ranges between 0 and 1.

A rule of thumb for interpreting the statistic: value between 0.8 and 1 indicate that sampling is adequate while a value less than 0.5 shows that sampling is not adequate. In this case overall value is 0.8038 indicating good sampling adequacy.

#### **3.4.2. Public Service Delivery (SPS)**

Similarly, we used direct questions about certain services that are supposed to be provided by the government institutions. In this association, respondents are requested to evaluate on Likert scale ranging from 1 (Very Concerned) to 5 (Highly Satisfied) about the public services namely security from external and internal factors provided by both army and police, utility services, education, health, road infrastructure, transportation, water and sanitation, shelter and employment. We constructed a single index for public service delivery based on above nine factors or public services.

Summary statistics<sup>12</sup> and correlation matrix<sup>13</sup> of the factors used in the building of index of satisfaction with public services delivery are presented in the appendix. Table of summary statistic reflect a minor picture of public satisfactions with these services. Mean values of the responses about the services lie around the moderate level of satisfaction as most of the values ranges between 2 to 3.48, where 1 indicate "very concerned" and 5 indicate "fully satisfied" from a mentioned public service.

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<sup>12</sup> See Appendix A (Table A2).

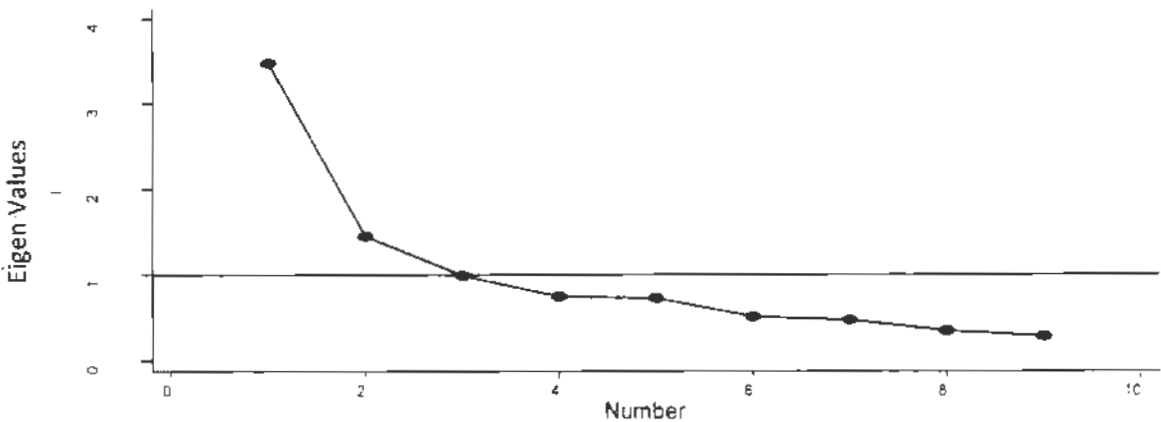
<sup>13</sup> See Appendix A (Table A3).

We employ PCA to these factors of public services and obtain nine components, equal to total number of factors and all the components explains full variations (1.00) in the original data set as shown in Table 3.2a. The first two components have eigen values greater than 1 and explains almost 54.82% of the variations in the original data set as shown in Table 3.2b.

Table 3.2 a: Principal Components of Public Services Delivery				Number of obs = 1669
				Number of comp. = 2
				Trace = 9
				Rho = .5482
Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	3.4846	2.0358	0.3872	0.3872
Comp2	1.4488	0.4612	0.161	0.5482
Comp3	0.9877	0.2432	0.1097	0.6579
Comp4	0.7445	0.0192	0.0827	0.7406
Comp5	0.7253	0.2162	0.0806	0.8212
Comp6	0.5090	0.0389	0.0566	0.8778
Comp7	0.4702	0.1233	0.0522	0.93
Comp8	0.3468	0.0638	0.0385	0.9686
Comp9	0.2830	.	0.0314	1

The Kaiser's rule recommends to retain only components having eigen values exceeding 1 as presented in Figure 3.2. Therefore, for the construction of variable of satisfaction with public services delivery we used only first two components.

Figure 3. 2: Illustration of Eigenvalues of Components of Public Services Delivery



**Table 3.2 b: Principal Components (Eigenvectors)**

Variable	Comp1	Comp2	Unexplained
SPS1	0.3075	-0.3308	0.5119
SPS2	0.399	-0.3223	0.2949
SPS3	0.385	-0.2227	0.4117
SPS4	0.3495	0.148	0.5427
SPS5	0.2805	0.5847	0.2306
SPS6	0.3249	0.4858	0.2902
SPS7	0.2792	0.2426	0.6431
SPS8	0.3283	-0.1423	0.595
SPS9	0.3255	-0.2413	0.5465

**Note:** SPS stands for Satisfaction with Services Delivery and corresponding number indicate the number of questions about particular services we have asked.

We also employ KMO test to determine sampling adequacy for each variable important for factor or component analysis as shown in Table 3.2c. A rule of thumb for interpreting is that value between 0.8 and 1 indicate that sampling is adequate while a value less than 0.5 shows that sampling is not adequate. In this case our overall value is 0.77 indicating good sampling adequacy as shown in Table 3.2c.

**Table 3.2 c: Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy**

Variable	KMO
SPS1	0.8161
SPS2	0.7454
SPS3	0.7733
SPS4	0.8635
SPS5	0.6715
SPS6	0.7305
SPS7	0.8814
SPS8	0.7844
SPS9	0.8186
Overall	0.7769

### 3.4.3. Economic Performance (EE)

In order to measure economic performance, the respondents were asked questions regarding certain economic issues which includes income inequality, poverty, unemployment, living

standard, crimes rate, corruption, economic growth, inflation, external debt and environmental issues. Sztompka (1996) finds uncertainty about employment, insecurity, financial stability, taxing instability and perceived inefficiency of institution as main contributors to distrust. However, Bauer (2018) finds no linkage between employment and generalized trust in Switzerland and Netherland. He argues that employment surely affect the life satisfaction however its nexus with trust in government and satisfaction with democracy seems mostly absent or negligible in size. Summary statistic<sup>14</sup> and correlation matrix<sup>15</sup> of the factors to be used in this index are presented in appendix.

Through PCA we obtain ten components that are equal to total number of factors and all the components explains full variations in the original data set as shown in Table 3.3a. First two components have eigen values greater than 1 and explains almost 55.18% of the variations in the original data set. The Kaiser's rule recommends to retain only components having eigen values exceeding 1 that are shown in Table 3.3b and Figure 3.3 given below.

**Table 3.3 a: Principal Components (Eigenvectors)**

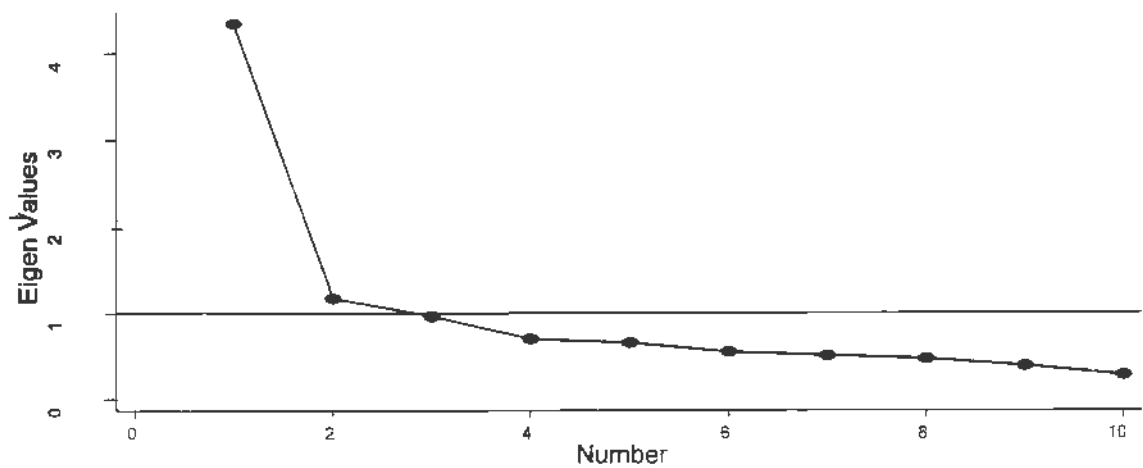
Variable	Comp1	Comp2	Unexplained
EE1	0.3274	0.0021	0.5341
EE2	0.3741	-0.3112	0.2783
EE3	0.3805	-0.2739	0.2831
EE4	0.3457	0.0639	0.476
EE5	0.3171	0.3923	0.3827
EE6	0.2171	0.5962	0.3787
EE7	0.3393	-0.1796	0.4618
EE8	0.3437	-0.3547	0.3391
EE9	0.2613	0.2574	0.6258
EE10	0.1985	0.3007	0.7229

**Note:** EE represents "Economic Efficiency of Government" and corresponding number indicate the question number that we have asked.

<sup>14</sup> See, Appendix A (Table A4).

<sup>15</sup> See, Appendix A (Table A5) for details.

**Figure 3. 3: Graph of Eigenvalues of Components of Economic Efficiency**



**Table 3.3 b: Principal Components of Factors of Economic Efficiency**

Number of obs = 1570

Number of comp = 2

Trace = 10

Rho = .5518

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	4.3457	3.1738	0.4346	0.4346
Comp2	1.1719	0.2127	0.1172	0.5518
Comp3	0.9592	0.2609	0.0959	0.6477
Comp4	0.6982	0.0446	0.0698	0.7175
Comp5	0.6537	0.1070	0.0654	0.7829
Comp6	0.5467	0.0441	0.0547	0.8375
Comp7	0.5026	0.0352	0.0503	0.8878
Comp8	0.4674	0.0852	0.0467	0.9345
Comp9	0.3822	0.1097	0.0382	0.9727
Comp10	0.2725	.	0.0273	1

KMO test for sampling adequacy for each variable important for factor analysis as shown in Table 3.3c indicate a good sampling adequacy as overall value is 0.882.



**Table 3.3 c: Kaiser-Meyer-Olkin Measure of Sampling Adequacy**

Variable	KMO
EE1	0.9311
EE2	0.8466
EE3	0.8729
EE4	0.9327
EE5	0.8682
EE6	0.7997
EE7	0.8923
EE8	0.8802
EE9	0.9016
EE10	0.8834
Overall	0.882

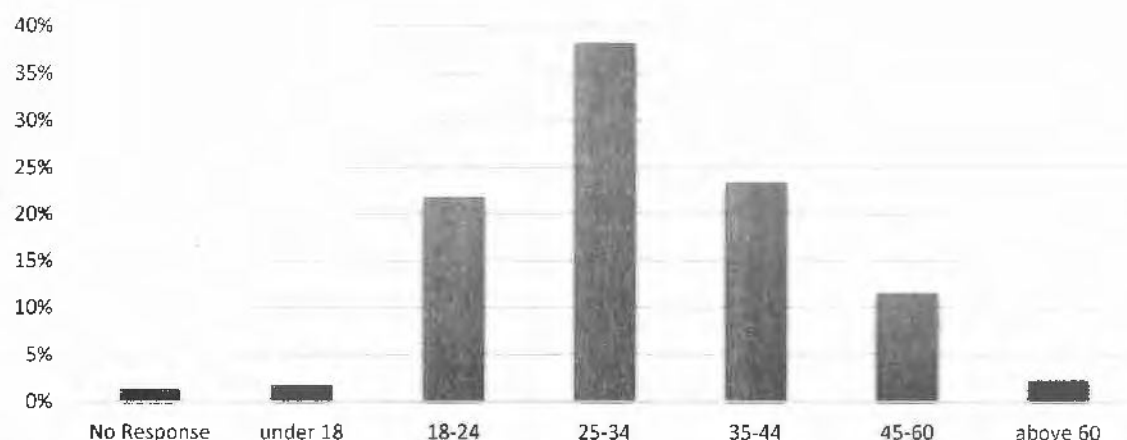
Another measure of economic efficiency (CEC) is based on individuals' satisfaction with current economic condition of Pakistan. We measure this variable by asking question as "How would you rate the overall, current economic condition of Pakistan?" Please rate on a scale (1) very bad to (5) very good.

#### **3.4.4. Socio-Demographic Variables**

We also used some control variables like age (AGE), educational level (LEDU), marital status (MARRIED), employment status (U.EMP), gender (MALE), and ethnic diversity (ETH\_SUNNI). Individuals are assumed as rational player in economic activities and this rationality improves with age and education. Some studies emphasize on existence of life cycle hypothesis as Slemrod and Katuscak (2005), for instance, finds that age initially has positive affect on marginal return and reach at its peak at age of 40 and after that marginal return declines. Life cycle theory argues that people demonstrate different values because young and old people are different: once young people grow older; they will acquire those values of older. However, the role of age in development of trust varies across the countries based upon the other determinant of trust. For example, Wang (2016) finds a positive nexus between age and political trust in Japan and South Korea reason might be that elderly citizens are more

experienced with political authorities thus should display a higher level of trust (Bauer and Fatke, 2014).

**Figure 3.4: Distribution of Age Groups of the Respondents**

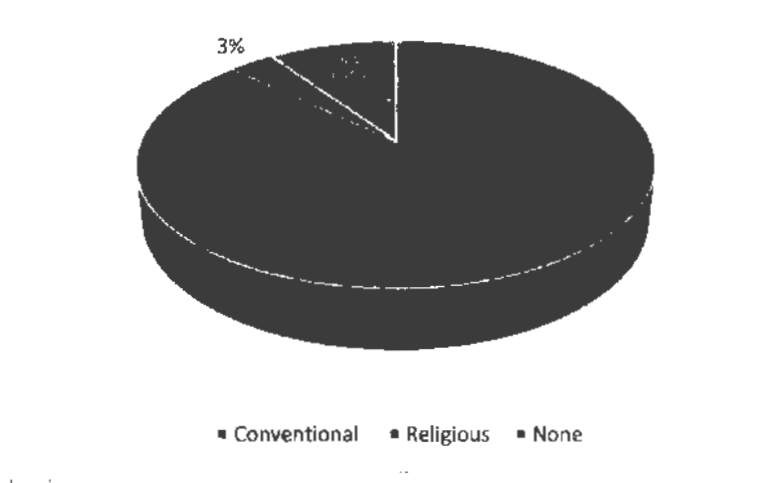


Hakhverdian and Mayne (2012) finds significantly negative relationship between age and trust in the case of 21 European countries (Sun et al., 2016). Similarly, Kim (2016) finds that older people show higher trust in government than younger citizens in China, while in case of South Korea situation is totally reverse. Some other argue that age also signify its role in the determination of tax morale (Martinez-Vazquez and Torgler, 2009). In this context, we divided our data into different age categories. Among these, the category 25-34 has highest number of respondents almost around 38%, followed by category 35-44 includes 23%, category 18-24 has 22% of the respondents.

By employing data from 2006-11 of Belgian political panel study, Hooghe et al (2015) say that education is a positive way for the socialization of experiences. Education enables citizens to better integrate and understand politics or political process and thereby gain experiences which in turn facilitates the development of political trust. Trust in government institutions is higher among people with higher education (Christensen and Laegreid, 2005). Education is negatively associated with institutional trust in corrupt societies and positively

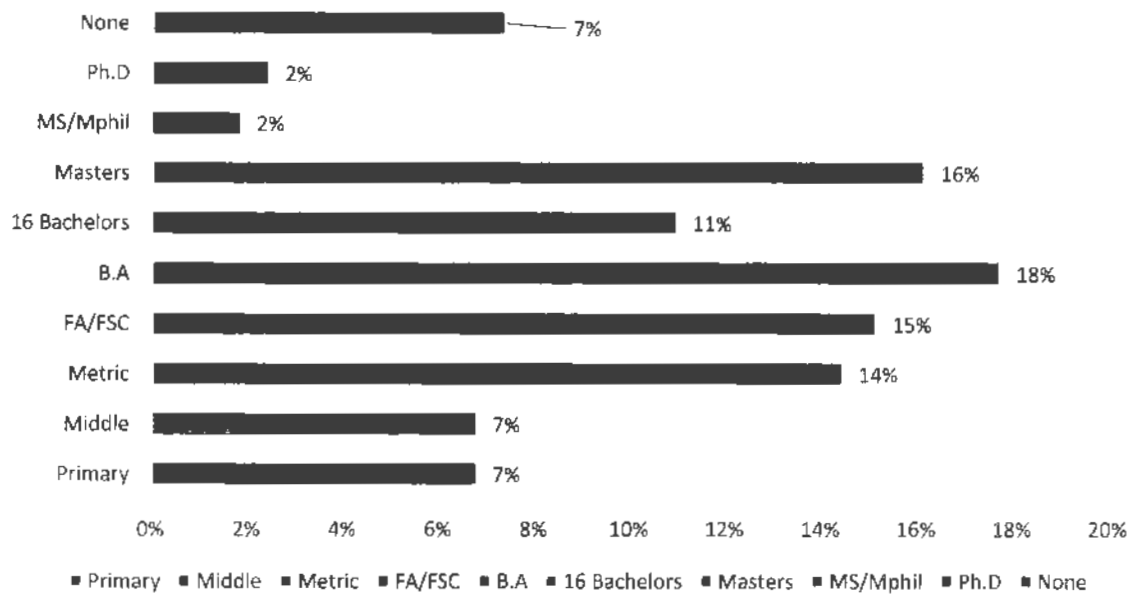
related to institutional trust in clean societies (Hakhverdian and Mayne, 2012). Our data set includes respondents having religious as well as conventional education while 10% of the respondents are uneducated as shown in following figure 3.5.

**Figure 3.5: Educational Background of the Respondents**



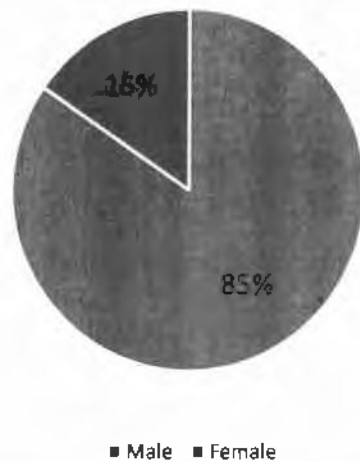
Education has conditional effect on trust in government. People with higher education have expectation with government regarding economic activities and employment so if government acts according to their expectation, they will trust it more and if government fails to fulfill their expectations, then the level of trust will fall. Wang (2010) finds people with higher education tend to be less satisfied with government performance. Similarly, Suh et al., (2012) argue that education do not play role for the development of political trust. In our dataset, people with conventional educational background also retain different level of education like primary, matriculation, masters or doctorate of philosophy as shown in following figure 3.6.

**Figure 3.6: Educational Level of the Respondents**



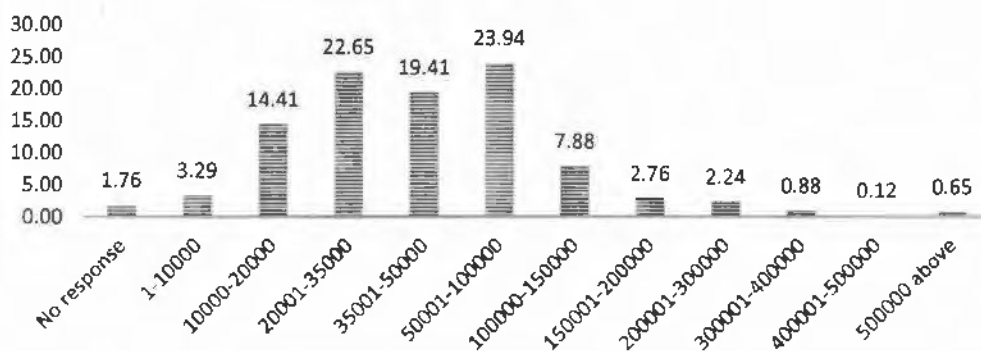
The role of gender is also differing across the globe, for instance, Wang (2016) argues that women put more trust in government compare to their male counterparts in South Korea and Japan. Similarly, Hakhverdian and Mayne (2012) comes with the findings that women and government employees are more trusting in government because of their dependence (Christensen and Laegreid, 2005; Kim, 2010; Bouckaert and Walle, 2002). On contrary, male do higher trust in both central and local government in Yemen (Salim et al., 2017). While Bauer and Fatke (2014) finds that women are supposed to be more critical as they hold less representation in public institutions. Brewer and Sigelman (2002) claim that respondent employed at any level of government trust the federal government more than respondent with no tie to government. In our data set representation of females and males is 15% and 85% respectively. The main reasons behind this low level of female participation in the study are the religious or regional norms which are strictly followed by the people of our sample area.

**Figure 3.7: Gender Distribution of the Respondents**



Meanwhile, lowest economic status class appears to have highest tax morale, while upper class has lowest followed by upper middle and lower middle class. Therefore, it is important to incorporate the effects of income level on the development of political trust. The nexus between income and trust is not a universal rule, however it varies across the region and countries. Income level is measured on a 5-point scale where 1 for poor and 5 denotes richer individuals.

**Figure 3.8: Income Distribution of the Respondents**

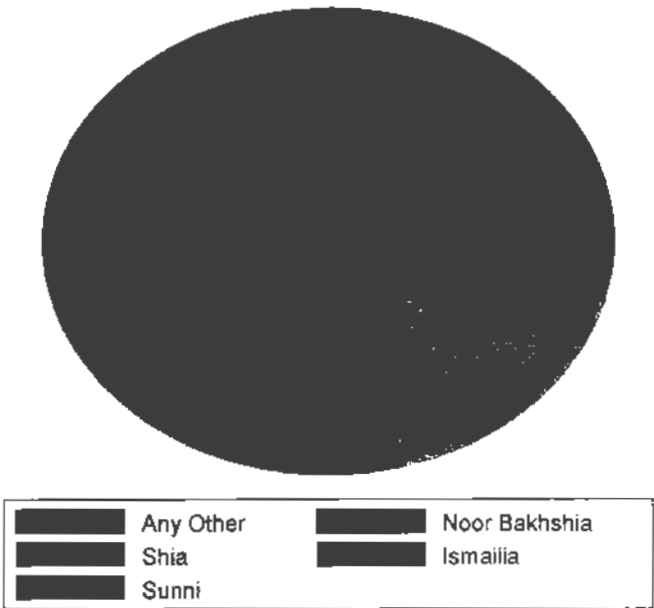


Similarly, we also measure income redistribution preferences (REDIST) of respondents by asking “How fair do you think income distribution is in Pakistan? Please rate on a scale ranges 1 to 5. Where, 1 for “fully unfair” and 5 for “fully fair”.

We also use the role of ethnic diversification while analyzing the impact of trust in government and hence on WTP taxes. In the sample area majority of the population are Muslim, however, sectarian differences present in Malakand division and Gilgit-Baltistan. Majority of the population in Malakand division belongs to Sunni sect, while majority of the population in Gilgit-Baltistan belongs to Shia sect. According to the literature, ethnic

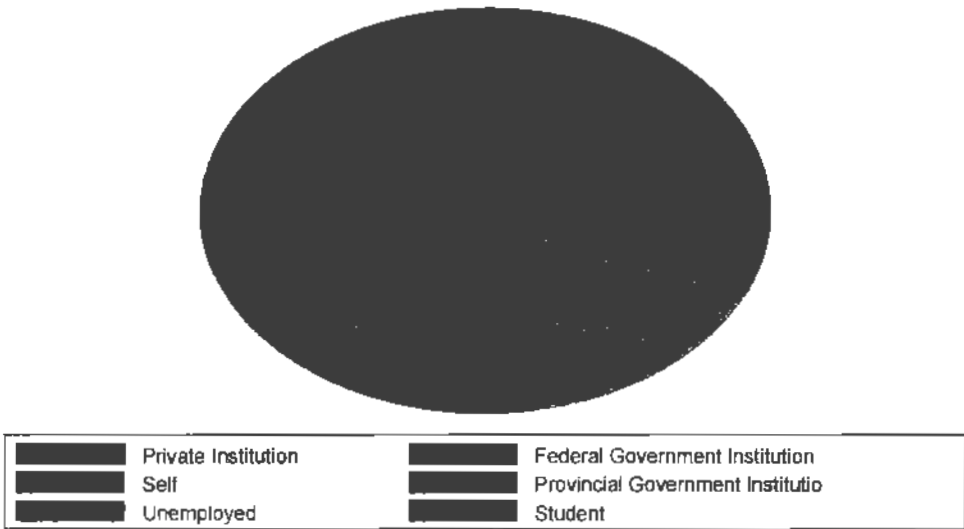
diversification inserts a positive impact on developing the level of trust people vest in their respective governments (Alesina and La Ferrara, 2005).

**Figure 3.9: Ethnic Diversification of the Respondents**



Furthermore, employment status also has effect on the level of trust in government. Studies found that people who are unemployed are less trusting as compared to their counterparts (Sztompa, 1996).

**Figure 3.10: Employment Status of the Respondents**



#### **3.4.5. Civic Engagement**

The role of civic and political engagement in shaping institutional trust is examined in many scholars after the Putnam's strongest case that civic engagement foster confidence in government by creating positive social capital (Hollis and Putnam, 1995; Stoyan et al., 2016). This measure is a combination of civic and political engagement. Civic engagement is measured by identifying the formal groups or organizations they belong to and frequency of attendance at these community organizations and religious activities. Political engagement is measured by creating a dummy variable specifically assessed by simple asking a question "Do you get help in resolving your issues by contacting any political leader, local elders, influential persons, media houses".

#### **3.4.6. Corruption**

Corruption (CRP) is a disease and it is necessary to curb it to foster economic growth. Even in well developed economies existence of corruption has adverse effects as Liu and Raine (2016) finds that perception about the existence of corruption in institutions and between the authorities negatively affect the institutional trust. Increasing activities to eliminate corruption positively influence the perception of citizens toward the institutions (Kim, 2016).

- We measure this variable by asking question as "Based on your personal experience, please rate the following departments about existence of corruption in it on a scale ranging between 1 (Fully corrupt) to 5 (Fully Transparent) i.e., Police, WAPDA, Sui Gas, Health, Education, Military, Courts, Customs, Taxation, Revenue Department".



Index of existence of corruption based on personal experience is important for us, a summary statistic<sup>16</sup> and Correlation matrix<sup>17</sup> are shown in appendix.

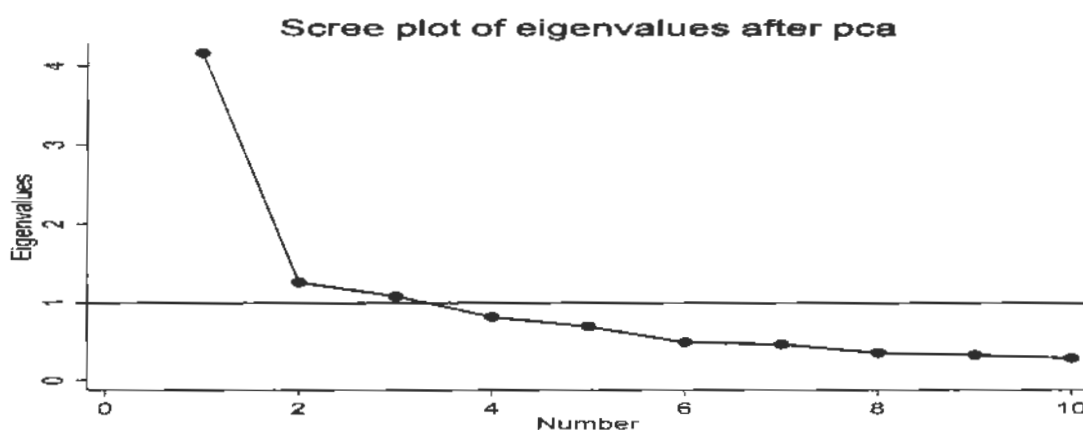
Table 3.6 a: Principal Components of Factors of Corruptions				Number of obs = 1605
				Number of Comp = 3
				Trace = 10
				Rho = 0.6383
Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	4.016	2.749	0.402	0.402
Comp2	1.267	0.169	0.127	0.528
Comp3	1.099	0.263	0.110	0.638
Comp4	0.836	0.111	0.084	0.722
Comp5	0.724	0.210	0.072	0.794
Comp6	0.514	0.023	0.051	0.846
Comp7	0.492	0.104	0.049	0.895
Comp8	0.387	0.029	0.039	0.934
Comp9	0.358	0.052	0.036	0.969
Comp10	0.306		0.031	1.000

By employing PCA we get a total number of components that are equal to total number of variables (10) and all the components explain full variations (1.00) in the original data set. As shown in Table 3.6a. The first three component have eigen values greater than 1 and explains almost 65.11% of the variations in the original data set. The Kaiser's rule recommends to retain only components having eigen values exceeding 1.

<sup>16</sup> See Appendix A (Table A6) for details.

<sup>17</sup> See Appendix A (Table A7).

**Figure 3.11: Eigenvalues of Components of Corruption**



Another measure of corruption (CRP1) is based on individuals' satisfaction with government efforts in curbing corruption. This variable can be called as "corruption control" too. We measure this variable by asking question as "How much are you satisfied with government activities in curbing corruption?" Please rate on a scale (1) very concerned to (5) fully satisfied.

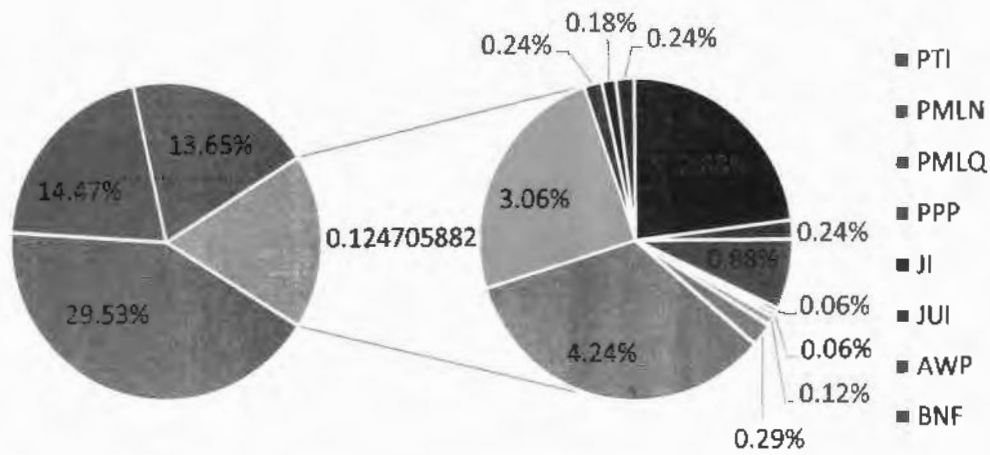
#### **3.4.7. Political Factors**

It is expected that people who identify with ruling party are more likely to trust government than their counter parts (Wang, 2016). Similarly, Hakhverdian and Mayne (2012) find out that non-voters and those having cast their votes for opposition parties display lower level of trust on institutions than election winners. We will ask people following questions:

- Among the political parties in Pakistan, which party if any do you feel close to?

Based on our dataset and the responses of the respondents about their political parties, an overall picture can be seen in graph below, PTI, PMLN and PPP are among the major political parties in the region as PTI rule in KPK as well as in federal government and PMLN is ruling party in Gilgit-Baltistan. On other hand almost 29% of the respondent avoided to response this question.

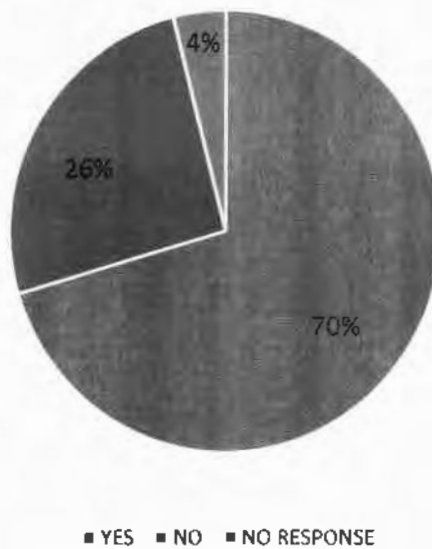
**Figure 3.12: Political Affiliation of the Respondents**



- Have you casted your vote in previous election?

Around 70% of the respondents in our data set casted their vote in previous elections while 26% of the people did not.

**Figure 3.13: Voting Behavior of Respondents in Last Election**

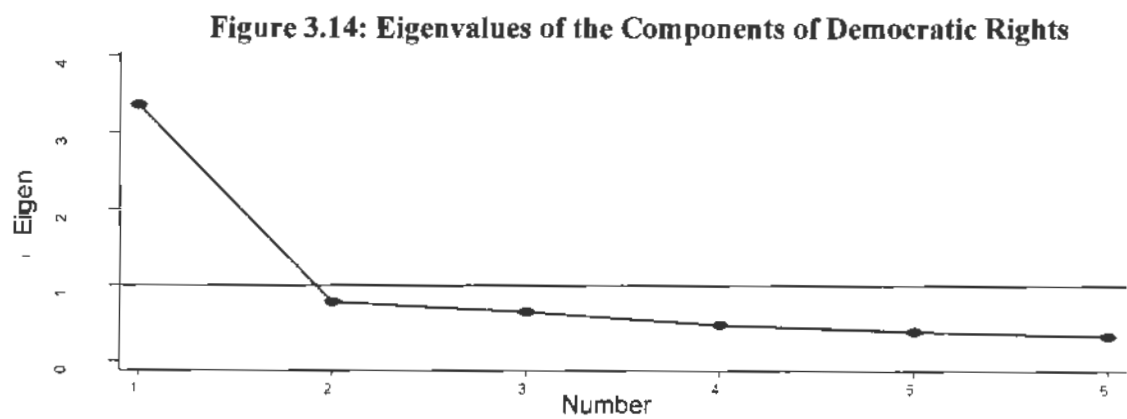


3.4.8. Democracy

The index of democratic rights (DR) depends upon availability of six basic democratic rights namely right to vote, right to participate in any kind of organization, right to gather and demonstrate, right to information, freedom of speech, right to criticize the government. The observation of the respondents is taken with Likert scale ranging from 1 (Very concerned) to 5 (Fully satisfied). Table of summary statistic<sup>18</sup> and correlation matrix<sup>19</sup> are presented in appendix.

Table 3.7 a: Principal Components of Factors of Democratic Rights				Number of Obs = 1673
				Number of Comp = 6
				Trace = 6
				Rho = 1
Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	3.3662	2.585	0.561	0.561
Comp2	0.7817	0.1299	0.1303	0.6913
Comp3	0.6518	0.1737	0.1086	0.7999
Comp4	0.4780	0.0859	0.0797	0.8796
Comp5	0.3922	0.0620	0.0654	0.945
Comp6	0.3302	.	0.055	1

As shown in Table 3.7a, total number of components are equal to total number of variables (6) and all the components explains full variations (1.00) in the original data set.



<sup>18</sup> See, Appendix A (Table A8).

<sup>19</sup> See, Appendix A (Table A9) for details.

Table 3.8a depicts that total number of components are equal to total number of variables (4) and all the components explain full variations (1.00) in the original data set. The first component has eigen value greater than 1 and explains almost 60.93% of the variations in the original data set, hence only component 1 is retained for further analysis as in Table 3.8b.

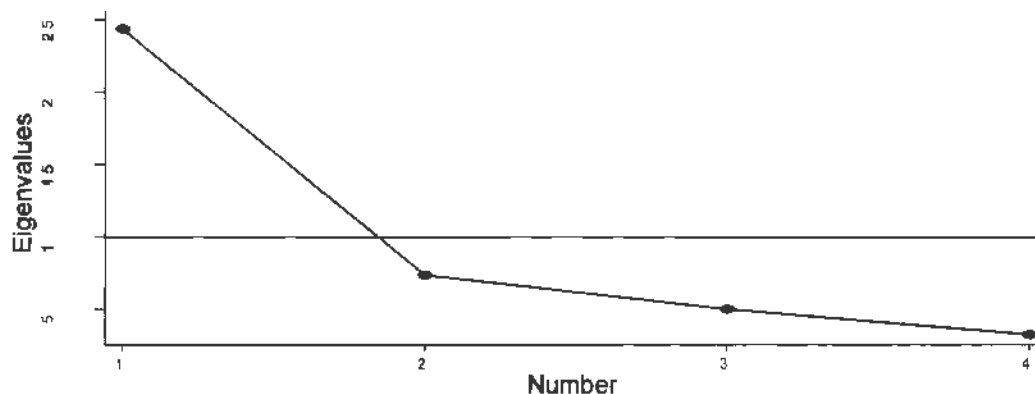
**Table 3.8 b: Principal Components (Eigenvectors)**

Variable	Compl	Unexplained
SC1	0.5201	0.3407
SC2	0.5472	0.2701
SC3	0.512	0.3612
SC4	0.4097	0.5909

**Note:** SC indicate social capital and corresponding number represents question number that we have asked.

The Kaiser's rule recommends to retain only components having eigen values exceeding 1 as shown in figure 3.15.

**Figure 3.15: Scree plot of Eigenvalues of Components of Social Trust**



As shown in Table 3.8c, KMO test of sampling adequacy has an overall value of 0.7431 which is greater than 0.5.

**Table 3.8 c: Kaiser-Meyer-Olkin Measure of Sampling Adequacy**

Variable	KMO
SC1	0.7228
SC2	0.6937
SC3	0.7851
SC4	0.8354
Overall	0.7431

#### **3.4.10. Political Efficacy**

Miller and Listhaug (1990) divide political efficacy (PE) into two components: Internal and external efficacy. Internal efficacy is basically individual perception that they are competent and capable enough to participate into political activities. While external efficacy is a judgment that an individual and public can have impact on the political process because government institution will respond to their needs. We use concept of internal efficacy as “Perception that individual have abilities to participate into politics”.

Table 3.9a show the summary statistics of political efficacy, which is measured on a Likert scale ranges between 1 to 5, where 1 shows the lowest response and 5 represents highest response to this question.

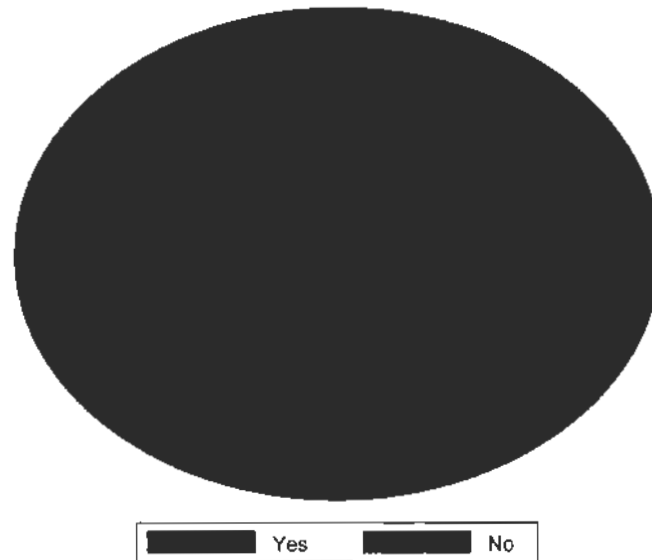
**Table 3.9 a: Summary Statistic of Political Efficacy**

Variable	Obs	Mean	Std.Dev	Min	Max
PE	1,697	2.9452	1.1508	1	5

#### **3.4.11. Willingness to Pay Taxes**

This is one of our dependent variables, which is measured at binary scale that willing to pay taxes (1) and not willing to pay taxes (0). The following figure 3.16 presents responses of the respondents about willingness to pay taxes. About 19% of the individuals are willing to pay taxes while on contrary 80.99% of respondents are not willing to pay taxes.

**Figure 3.16: Distribution of the Respondent Regarding Willingness to Pay Taxes**



#### **3.4.12. Tax Morale**

Trust is important for the willingness to pay of non-tax payers, whereas tax morale is important for the tax payers (Torgler; 2005). According to Lago-Penas and Penas (2010) findings tax morale is shaped by socio-demographic, characteristics, personal financial experience and political attitude. However, Torgler (2005) linked willingness to pay taxes and tax morale with government expenditures. Further, elaborate that both willingness to pay taxes and tax morale of individuals rises if they see expenditures of the government are in best interest on the public.

There does not exist a uniform measure of tax morale as Torgler (2005) measures it as “please tell me whether you think it can always be justified cheating on the tax if you have chance. While, Lago-Penas and Penas (2010) measure it as by asking rate about following statement “Citizens should not cheat on their tax”. The respondent had to respond this question by picking a point on a Likert scale ranges 1 to 5, where 1 represent “strongly not justified” and 5 depicts “strongly justified”. Following Torgler (2004,2005) we measure it as “Is it

justified that “in their personal interest citizens can cheat on tax if they have chance? Please rate on a scale ranges 1 to 5, where 1 represent “Strongly not justified” and 5 depicts “strongly justified”. This five-point scale has been re-recorded into a three-point scale (1,2,3), with 3 for “Never Justified”. (3-5) has been integrated into 1 “Justified”.

### **3.5. Data and Data Sources**

As performance approach toward trust in government consist of two parts that are macro and micro approach. The macro performance theory explains variation in trust across countries and overtime due to variation in unemployment rate, economic growth, inflation rate, whereas micro approach theory relates variation in trust to changes in government services delivery and functioning of public administration (Bouckaert and Walle, 2003). Keeping in view, our primarily focus of the study is based on micro approach theory. In this context, a well-designed survey approach is applied to collect the data about certain economic issues, socio-demographic factors, public services deliveries, and certain political factors to determine the country level specific factors that are important in framing individuals trust in government, tax morale and willingness to pay taxes.

#### **3.5.1. Universe of the Study**

The population for the analysis includes the head of household either male or female, employed or unemployed, government or semi government employees, businessmen, politicians, political workers, self-employed, students studying at college or university level, academia, law makers etc. Scope of this study covers the areas of Malakand division and Gilgit-Baltistan region of Pakistan. Malakand division has an area of 29,872 square Km while Gilgit Baltistan covers an area of 72,496 square Km. For the purpose of administration, government of Pakistan divided these regions into 7 and 10 districts respectively. According to Pakistan’s national population



census total population of Malakand division is 7.5 million.<sup>22</sup> Whereas the population of Gilgit-Baltistan<sup>23</sup> is over 1.3 million people<sup>24</sup>.

### **3.5.2. Sampling and Sample Size**

A number of ways have been available in order to collect data from the field that are surveys, questionnaires, interviews and focus group discussion. In this study we used questionnaire approach in order to extract required information. In this context, we employ multi stage stratified random sampling techniques to select the respondents. The target population (region) are divided into different strata's namely Districts, Tehsils, Union Councils. The sample size for each stratum is 384 to 400 (Israel, 1992; Krejcie and Morgen, 1970). If we set a precision level of 5% and sample size will be 100 if we decide a precision level of 10%. Hence, with a precision level of 10%, the sample size for this study is 100 individuals from each district, this number is further equally distributed into tehsils of each district and from tehsils into union councils. These union councils are randomly selected keeping in consideration financial limitations and accessibility. In addition, in selected union councils we collected data from business hub of town, where, mostly office of the union council is situated. Every person from the sample area has an equal probability for being selected into study (Probability=  $1/N$ ).

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<sup>22</sup> <http://www.pbs.gov.pk/content/population-census>.

<sup>23</sup> <http://www.gilgitbaltistan.gov.pk/DownloadFiles/GBFinancialCurve.pdf>.

<sup>24</sup> See, Appendix A (Tables A14, A15) for detailed district wise profile of the population

**Table 3.10: Summary Statistics of all the Variables used in Analysis**

<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std.Dev</b>	<b>Min</b>	<b>Max</b>
TG	1,558	4.266	1.401	1.091	7.780
SP5	1,576	3.976	1.286	1.556	7.953
EE	1,485	4.391	1.255	1.799	8.995
CIVICENG	1,605	1.543	0.914	0	3
PHELP	1,605	0.462	0.499	0	1
CRP	1,605	2.876	0.995	0.90	5.87
DR	1,579	8.535	2.048	2.44	12.22
SC	1,601	8.210	1.519	1.99	9.95
REGION	1,605	0.594	0.491	0	1
LEDU	1,605	4.086	2.214	0	9
MALE	1,605	0.845	0.362	0	1
CITY_DUM	1,605	0.118	0.322	0	1
U.EMP	1,605	0.123	0.328	0	1
ETH_SUNNI	1,605	0.513	0.500	0	1
AGE	1,605	31.982	9.664	15	90
RP_GB	1,605	0.088	0.283	0	1
RP_CAP	1,605	0.298	0.458	0	1
TIM	1,605	60009	56557	1250	425000
PE	1,602	3.137	1.206	1	5
CRP1	1,605	0.097	0.296	0	1
REDIST	1,566	2.462	1.155	1	5
INCOME LEVEL	1,590	2.517	1.078	1	5
MARRIED	1,605	0.630	0.483	0	1
DEMOCRACY	1,605	0.060	0.238	0	1
CEC	1,599	2.444	1.171	1	5
SOI	1,544	0.281	0.242	0.125	1
J.FAM	1,605	0.693	0.461	0	1
TAX	1,605	0.317	0.465	0	1
TMO	1,605	1.469	0.806	0	2

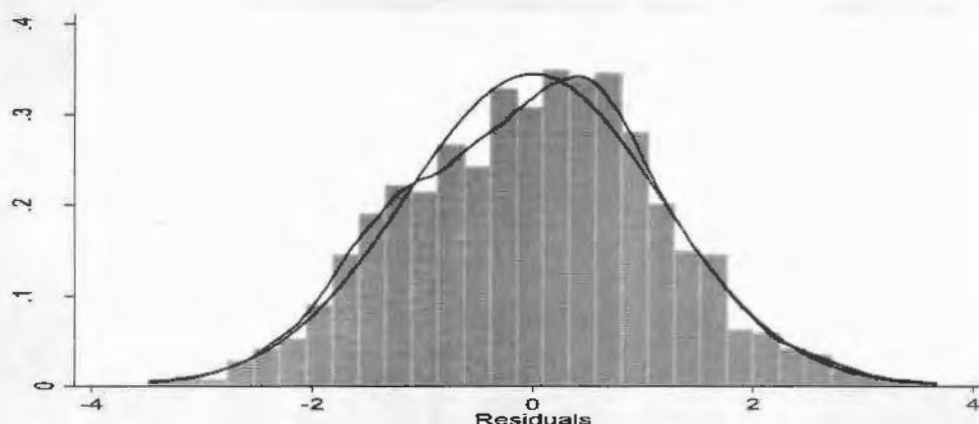
### 3.6. Estimation Techniques

This section presents estimation techniques in order to estimate our proposed empirical models.

#### 3.6.1. Ordinary Least Square or Feasible Generalized Least Square

We estimate our first model, given in equation (3.14), by employing Ordinary Least Square (OLS) technique.<sup>25</sup> OLS estimate the parameters of the model by minimizing the sum of squared residuals and is Blue. On inquiry of the data though OLS, we found residuals to be normally distributed, through histogram of residuals (Figure 3.17) and Jarque-Bera normality test.<sup>26</sup>

**Figure 3.17: Graph of Histogram of Residuals of the OLS Regression**



Further, we found no issue of multicollinearity among explanatory variables.<sup>27</sup> Linear regression specification test also support that our model is well specified<sup>28</sup> and also see Ramsay regression error specification test.<sup>29</sup> However, problem arises, when we go for

<sup>25</sup> See, Appendix A (Table A16).

<sup>26</sup> See, Appendix A, (Table A17).

<sup>27</sup> See, Appendix A, (Table A18).

<sup>28</sup> See, Appendix A, (Table A19).

<sup>29</sup> See, Appendix A, (Table A20).

heteroscedasticity test. By using Breusch-Pagan technique and we identify the existence of heteroscedasticity in our data due to which the results obtain through OLS estimation techniques are not reliable anymore.<sup>30</sup> To tackle this problem of heteroscedasticity, we now employ Feasible Generalized least square (FGLS) for further analysis of the data.

### 3.6.2. Ordered Probit Model

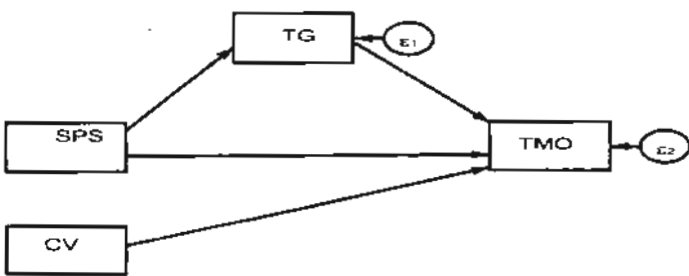
We estimated our second model given in equation (3.15), with the help of Ordered Probit Regression as follow;

$$TMO_i = \beta_1 + \beta_2 TG_i + \beta_3 CRP1_i + \beta_4 REDIST_i + \beta_5 INCOME_i + \beta_6 DEMOCRACY_i + \beta_7 DM_i + \gamma CV_i + e_{ij} \quad (3.23)$$

### 3.6.3. Mediation and Path Analysis (GSEM)

Mediator variable is one that explains the relationship between two other variables. We use moderate mediating technique developed by Hayes (2018). In our case; simple mediation model, depicted in the figure given below by utilizing a variable (SPS) out of institutional variables mentioned above in equation 3.17 and 3.18.

**Figure 3.18: Path Analysis Depiction**



<sup>30</sup> See, Appendix A, (Table A21).

This relationship is represented with the following two equations;

$$TG_i = \alpha_0 + \alpha_1 SPS_i + e_i \quad (3.24a)$$

$$TMO_i = \beta_0 + \beta_1 SPS_i + \beta_2 TG_i + dCV + e_i \quad (3.24b)$$

In both above equations, SPS represents satisfaction with public services, TMO indicate tax morale of individuals, TG represents trust in government and CV represents set of controlled variables. From equation (3.24a), the effect of SPS on TG would be written as follows;

$$\theta_{SPS \rightarrow TG} = \alpha_1 \quad (3.24c)$$

Multiplicative of effect of SPS on TG and effect of TG on TMO yield the indirect effect of SPS on TMO through tax morale.  $\theta_{SPS \rightarrow TG}$  represents partial derivatives of TG w.r.t SPS as  $\frac{\partial TG}{\partial SPS}$ . Where effect of SPS on TMO is  $\beta_1$  from equation (3.24b). Similarly, effect of TG on TMO is  $\beta_2$  from equation (3.24b). Indirect effect of SPS on TMO through TG is

$$\frac{\partial TG}{\partial SPS} * \frac{\partial TMO}{\partial TG} = \alpha_1 * \beta_2 \quad (3.24d)$$

Total effect of SPS onto TMO is sum of direct and indirect effects as

$$= \frac{\partial TMO}{\partial SPS} + \frac{\partial TG}{\partial SPS} * \frac{\partial TMO}{\partial TG} \quad (3.24e)$$

$$= \beta_1 + (\alpha_1 * \beta_2)$$

## Chapter 4

### Estimations and Results

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This Chapter of the study presents results of our estimated empirical models and its implementations. This chapter consists of three sections. The first Section presents and discuss the results of trust in government and its determinants. While, the second Section check robustness of the results presented in the section one by splitting the data on regional as well as gender bases. The third, Section, analyzes the relationship between trust in government, tax morale and willingness to pay taxes by employing ordered probit regression and generalized structural equation model.

#### 4.1. Trust in Government and its Determinants

This section presents the results of our empirical model mentioned in equation (3.14) which we estimated by employing Feasible Generalized Least Square (FGLS) technique on a survey data of 1700 individuals obtained from Malakand and Gilgit-Baltistan regions of Pakistan. This model discusses the trust in government and its determinants found in literature as discussed earlier. Our dependent variable is trust in government (TG) and independent variables are satisfaction with public services delivery (SPS), economic efficiency of government (EE), civic engagement (CIVICENG), political help (PHELP), perceptions about existence of corruption (CRP), availability of democratic rights (DR), social capital (SC), educational level (LEDU), unemployment (U\_EMP), ethnic diversification (ETH\_SUNNI), age (AGE), political affiliation (RP\_GB or RP\_KPK), total income (TIM), political efficacy (PE) and dummy variables to control the effects of gender (MALE), region (REGIONAL) and living area (CITY\_DUM).

**Table 4.1: FGLS Regression on Trust in Government**

Source	SS	Df	MS	Number of obs = 1399
Model	957.35	18	53.18	F(18, 1380) = 45.14
Residual	1625.95	1,380	1.17	Prob>F = 0
Total	2583.308	1,398	1.847	R-squared = 0.3706
				Adj R-squared = 0.3624
				Root MSE = 1.0855

TG	Coef.	Std. Err.	t ratio	P value
SPS	0.190***	0.026	7.200	0.000
EE	0.203***	0.026	7.690	0.000
CIVICENG	-0.091***	0.034	-2.720	0.007
PHelp	-0.029	0.064	-0.450	0.649
CRP	-0.194***	0.037	-5.300	0.000
DR	0.099***	0.017	5.830	0.000
SC	0.103***	0.019	5.320	0.000
REGION	0.540***	0.098	5.500	0.000
LEDU	0.026*	0.014	1.810	0.071
MALE	0.244***	0.086	2.840	0.005
CITY_DUM	-0.281***	0.080	-3.530	0.000
U_EMP	-0.136*	0.077	-1.770	0.077
ETH_SUNNI	0.320***	0.097	3.290	0.001
AGE	0.006*	0.003	1.860	0.063
RP_GB	0.253**	0.126	2.000	0.045
RP_CAP	0.124*	0.068	1.830	0.068
TIM	9.17E-06	0.000	1.600	0.110
PE	0.073***	0.027	2.710	0.007
_cons	0.351	0.312	1.120	0.261

**Note:** Dependent variable is trust in government. \*\*\*, \*\* and \* indicate significant at 1%, 5% and 10% respectively

Table 4.1. shows estimated results of our empirical model (3.14). Results indicate that respondent satisfaction from public services (SPS) enters the model positively and statistically significant. In developing world, majority of the population fall between the segment of lower middle income and lower income group. They are largely dependent in government for certain services like health, education, protection and employment. obviously, if people are satisfied by the such public services that are being provided by their respective governments, then they will put more trust in government as compared to people who are found to be less satisfied

from such public services. Furthermore, our results are found to be in line with existing literature on the subject as most of the related studies found a positive association between satisfaction with public services delivery and trust in government (Citrin and Green, 1986; Bouckaert et al., 2002; Christensen and Laegreid, 2005).

Similarly, the effect of perceptions about the economic efficiency of the government (EE) holds a positive sign which is also statistically significant. All the governments have to face many challenges at national, international and most importantly at economic front. The policies that are directly linked with the general public are economic policies of the country that is how efficiently government tackle the issue of inflation, unemployment, income inequality, and economic growth of the country. The success of government lies in efficiently reducing economic problem and enhancing economic well-being of the individuals. More is the satisfaction of the individuals with the economic efficiency of the government, the more they put their trust on respective governments.

The literatures (Pary, 1976; Hibbs and Vasilatos, 1981; Liu and Raine, 2016; Wang 2016) indicate that dominating positive perceptions of the public about economic efficiency of the government in tackling economic problems leads higher trust in government institutions in the society. Similarly, a lower level of trust in government is associated with individual having mostly negative perceptions about government efforts in eradicating economic problems in the country.

Furthermore, the civic engagement (CIVICENG) as measured by the number of informal organizations from which individual belongs has significant negative impact on developing trust in government. A plausible reason might be that the more people engage in civic activities the more they realize the prevailing problems among the people and in the society, where efforts of the government is lacking. Another reason for this might be a decade long war that



was fought between militants and army in the region that has shattered the social and civic life of the people in the region. This indicator is found contradicting with the literature (Hollis and Putnam, 1995; Stoyan et al., 2016) where scholars have identified a statistically significant positive nexus among the civic engagement and trust in government.

Moreover, we used a dummy variable for political participation that is measured as helped obtained through different political actors. The easily accessible way of approaching government is through political representatives of the area. If individual has requested certain type of help from such political representatives and succeed in obtaining that in their favor then individual will put more trust on that representative and ultimately trust in government improves. However, this indicator is found to have a statistically insignificant negative relationship. This might be probably due to lower level of engagement between political representative and general public because once elected such political representative becomes inaccessible by a common individual.

However, the next determinant corruption (CRP) has a negative relation with trust in government and this nexus is found to be statistically significant at 1% level of significance. Because perceptions about the existence of corruptions in government institutions and public experience with such institutions hampers or hinders public feelings towards the trust in government. When people are dealing with authorities their evaluations are primarily limited to assessment of fairness of that particular authority on institutional procedures. Our Results of this indicator are in line with the existing literature (Anderson and Tverdova, 2003; Meer, 2010; Ramesh, 2017) which states that perceptions about the existence of corruption in public institutions hamper the level of trust the people vest on their government.

On contrary, satisfaction with availability of basic democratic rights (DR) found to have positive nexus with trust in government. This relationship is also statistically significant at 1%

level of significance. The reason is simple that as trust is central to positive human relations of all kind so is trust central to the flourishing of democracy. As people enjoy more democratic rights, the more they will support democratically elected government. Similarly, countries where such democratic rights lack researchers have found low level of trust in government. Availability of such rights is a major difference between democratically elected government and authoritarian regimes of Arab world and a major reason for low level of trust in government in authoritarian or countries where dictatorship exist. Our findings are completely in line with the available literature (Jamal, 2007; Kim, 2016; Wong et al., 2009) that attributes a positive relationship between availability of democratic rights and trust in government.

Similarly, social trust has a significant impact on developing or transforming trust in government at 1% level of significance. It supports Putnam's famous hypothesis that the social trust spillover to trust in government and its institutions. Simple logic behind this is that government is composed of individuals chosen from the society through voting. If overall nature of the individuals is trusting then this behavior also spills over to other tiers of the society like government or its institutions. Our estimated results are totally harmonized with the received literature, for instance (Putnam, 1995; Hakhverdian and Mayne, 2012; Suh et al., 2012), that finds a positive association between social trust and trust in government.

We also include certain controlled variables to capture demographic effects on trust in government. For instance, to capture regional effects we created a dummy variable (REGION) which is found to be have statistically significant and positive relation with trust in government. The estimated results indicate that people living in Gilgit-Baltistan put more trust in government as compared to people of Malakand division. The one possible reason for this low level of trust in government is decade long war between Pakistan army and Taliban that was

fought in this region. Due to which majority of the people flee from their homes in other parts of country and named as internally displaced people (Zafar, 2011).

Further, education level (LEDU) of the respondents also positively linked with the trust in government and this indicator is statistically significant. People with better educational backgrounds have expectation toward their respective government regarding generation employment opportunities and promoting favorable circumstances for business opportunities. If the individual finds government activities are consistent with their expectations, they put more trust in government. Education also enables individuals to better integrate into society through socialization and understand political process and gather experiences which in turn facilitates the development of political trust. Received literature finds mixed evidence for the relationship between education and trust in government. For instance, Christensen and Laegreid (2005) find a positive association between trust in government and education. On contrary, Wang (2010) find a negative nexus between these two variables while Suh et al., (2012) finds no relevance of education for the development of trust in government. Our findings support a positive connection between education and trust in government for instance, (Christensen and Laegreid, 2005; Hakhverdian and Mayne, 2012).

Similarly, dummy variable for capturing gender effects is (Male) also found to be positively linked and also statistically significant. Results indicate that male respondents are found to have more trust in government as compared to females of these region. Major reason behind this low level of trust among female's respondents are social, regional and religious norms that hinders their socialization, political activities and employment opportunities. Our findings are mostly contradicting with the available literature which suggest that females are more trusting of government as compared to male's population, for instance, (Wang, 2016; Kim, 2010; Bouckaert and Welle, 2002). However, Salim et al., (2017) gives evidence in favor

of our findings that support that male are found to be more trusting as compared to females (Bauer and Fatke, 2014).

Likewise, we also include another dummy variable to capture urban-rural effects (CITY\_DUM). The results indicate a significant negative relation between this dummy variable and trust in government. Which indicates that people residing in urban areas are found to have less trust as compared to people living in rural areas. The major reason behind this low level of trust prevailing in urban areas is due to their dependence of government as compared to rural areas where mostly people are found to be self-sufficient in terms of employment and food security that is mostly agriculture and livestock. While, in urban areas mostly people are dependent on the public services that are being provided by the government. A dissatisfaction from such services is reflected though less trusting environment.

Unemployment (U\_EMP) is another major factor that drives the level of trust that people vest on their government. Results reflect a negative association between unemployment and trust in government. Evidences in favor of this indicators have mixed trend from the related literature. For instance, Sztompa (1996) found a negative nexus between unemployment and trust in government while Bauer (2018) finds no linkage between employment and generalized trust. However, categories of employment insert a good impact on trust in government as Brewer and Sigelman (2002) finds that people employed as government institutions or public sector employees put more trust in government as compared to other sectors (Kim, 2010).

Ethnic diversity (ETH\_SUNNI), on other hand, is positively related to trust in government and this nexus is statistically significant. Our findings are in line with the available literature which indicate that ethnic diversity put a positive impact on trust in government (Alesina and La Ferrara, 2005).

Similarly, Age (AGE) of the respondents shows a significant positive association with trust in government. Results translate that as older population have more trust in government as compared to younger ones. Individuals are supposed to be rational players in economics. As people grew older their rationality enhances based on their educational backgrounds and practical experiences. Literature have difference of opinions regarding the role of age for development of trust in government as Wang (2016) finds a positive relationship between age and trust in government in Japan and South Korea (Bauer and Fatke, 2014). On Contrary, Hakhverdian and Mayne (2012) find a negative association between age and trust in government for European countries (Sun et al., 2016). Our estimates are in line with the Wang (2016) and Kim (2016) which says older people show higher trust in government than younger citizens.

We also include a set of political factors like political affiliation (used dummy variables for affiliation with ruling party in provinces and capital) and feelings of political efficacy. Political affiliation is found to exerts a positive impact on trust in government. Means individuals who are affiliated with the ruling party are found to have greater trust on respective government as compared to individuals who have sympathies for opposite political parties. In literature, Gershtenson, Ladewig and Plane (2006) support our argument by stating that citizens have greater faith in the party which they identify and are more trusting of institutions when their party controls them and more trusting of the government as a whole (Ramesh, 2017; Anderson and Tverdova, 2003). However, in our case, for instance in Gilgit-Baltistan where PML-N is ruling, our indicator in this case is also found to be statistically significant. Similarly, PTI is ruling in KPK region and in federal, we also find a significant and positive nexus here.

• Total monthly income (TIM) is found to have significant and positive nexus with trust in government. Similarly political efficacy is found to have a significant and positive relation

with trust in government. Means a sense of being competent and capable enough to participate into political process among the respondents have significant impact on the development of trust in government (Miller and Listhaug, 1990).

#### **4.2. Robustness**

To check the robustness of our results presented in Table 4.1, we divide our main data set into four categories based on regional and gender. That is, Malakand division, Gilgit-Baltistan, male and female.

##### **4.2.1. Regional Segregation**

Table 4.2 presents the estimated results for the region of Gilgit-Baltistan while Table 4.3 shows the estimated results for Malakand region. In both of the tables, trust in government is our dependent variable. Like aggregate analysis, results obtained for both of the regions depicts that satisfaction with public services delivery (SPS) has a positive and significant linkage with trust in government. In developing world where majority of the population depends in government provisions for certain basic necessities. A satisfaction from such services enhances trust level among users. Our findings are supported by earlier analysis on topic which also suggest that satisfaction from public services increases the trust in government (Bouckaert et al., 2002; Christensen and Laegreid, 2005).

Likewise, aggregate analysis (Table 4.1) and literature reviews (Liu and Raine, 2016; Wang 2016) we found a significantly positive effect of economic efficiency of the government (EE) on trust in government for both Gilgit-Baltistan (Table 4.2) and Malakand region (Table 4.3). This leads us that more the government succeed in eradicating economic issues prevailing in the society the more individual will put their trust in government.

**Table 4.2: FGLS Regression for Gilgit-Baltistan**

Source	SS	Df	MS	Number of obs = 837
Model	466.08	17	27.417	F(17, 819) = 21.87
Residual	1026.61	819	1.25	Prob>F = 0
Total	1492.697	836	1.785	R-squared = 0.31
				Adj R-squared = 0.30
				Root MSE = 1.11

TG	Coef.	Std. Err.	t ratio	P value
SPS	0.192***	0.035	5.530	0.000
EE	0.199***	0.037	5.420	0.000
CIVICENG	-0.099**	0.043	-2.330	0.020
PHelp	0.334***	0.093	3.590	0.000
CRP	-0.126**	0.051	-2.460	0.014
DR	0.102***	0.023	4.360	0.000
SC	0.124***	0.027	4.620	0.000
LEDU	-0.006	0.021	-0.270	0.789
MALE	0.211**	0.094	2.240	0.026
CITY_DUM	-0.323***	0.117	-2.760	0.006
U_EMP	0.124	0.111	1.120	0.264
ETH_SUNNI	0.394***	0.111	3.540	0.000
AGE	0.004	0.005	0.830	0.405
RP_GB	0.087	0.121	0.720	0.469
RP_CAP	0.023	0.094	0.250	0.806
TIM	1.34E-06*	0.000	1.900	0.058
PE	0.069**	0.034	2.060	0.040
_cons	0.623	0.418	1.490	0.137

Note: Dependent variable is trust in government. \*\*\*, \*\* and \* indicate significant at 1%, 5% and 10% respectively

Furthermore, on contrary to literature (Stoyan et al., 2016) the indicator of civic engagement (CIVICENG) is having a significant negative nexus with trust in government for both of the regions. Results indicate that the more people engage in civic activities through their association with formal and informal organization less they will trust on the government. A plausible reason for these contradicting results with literature might be the views about these social activities that are done by formal and informal organizations.

**Table 4.3: FGLS Regression Malakand Division**

Source	SS	Df	MS	Number of obs = 562
Model	482.95	16	30.185	F(16, 545) = 33.82
Residual	486.47	545	0.893	Prob>F = 0
Total	969.42	561	1.73	R-squared = 0.498
				Adj R-squared = 0.4835

TG	Coef.	Std. Err.	t ratio	P value
SPS	0.201***	0.039	5.160	0.000
EE	0.105***	0.038	2.750	0.006
CIVICENG	-0.143***	0.052	-2.760	0.006
PHELP	-0.414***	0.088	-4.700	0.000
CRP	-0.325***	0.049	-6.610	0.000
DR	0.101***	0.025	4.000	0.000
SC	0.057**	0.027	2.150	0.032
LEDU	0.032*	0.019	1.720	0.086
MALE	0.211	0.228	0.920	0.356
CITY_DUM	-0.145	0.115	-1.260	0.209
U_EMP	-0.323***	0.091	-3.560	0.000
ETH_SUNNI	-0.085	0.214	-0.400	0.692
AGE	0.003	0.004	0.830	0.408
RP_CAP	0.288***	0.094	3.050	0.002
TIM	1.11E-06	0.000	-1.150	0.250
PE	0.081*	0.044	1.860	0.063
_cons	2.294	0.496	4.630	0.000

**Note:** Dependent variable is trust in government. \*\*\*, \*\* and \* indicate significant at 1%, 5% and 10% respectively

In developed world such organization are backed and financed by the government to enhance the efficiency of the social work that create positive sentiments among masses. While in underdeveloped world, these organizations and their activities are financed through charity and with the help of international donors to curtail the inefficiency of the government in specific sector which is considered a factor that reduces the level of trust in government.

Furthermore, political participation (PHELP) falls positive for its relationship with trust in government for Gilgit-Baltistan region and its coefficient is statistically significant. On contrary, political participation (PHELP) has a negative sign with trust in government for Malakand region. Its means people who tried to obtain any type of political help though



authorities put more trust in government in Gilgit-Baltistan while this nexus is significantly negative for Malakand division. This contradicting evidence are mainly due to high population of Malakand division as compared to Gilgit-Baltistan. Another reason is political instability that lasted in Malakand division due to militant insurgencies.

Similarly, the relationship between corruption (CRP) and trust in government is found to associated results obtained through full data set and as well as are in line with the literature. As researcher have claimed that perceptions about existence of corruption in government institution impede the level of trust that people have on their government (Meer, 2010; Ramesh, 2017). Likewise, as Jamal (2007) states that availability of democratic rights (DR) positively relates with trust in government. Our results for both Gilgit-Baltistan and Malakand divisions supports the literature through a positive and statistically significant association with trust in government (Kim, 2016; Wong et al., 2009). In Support of Putnam's hypothesis which states that social capital (SC) spill over to trust in government, results indicate a significant positive relationship between social capital and trust in government for both of the regions (Putnam, 1995; Hakhverdian and Mayne, 2012).

However, level of education (LEDU) found to have contradicting evidences in literature for the development of trust in government. Unlike aggregate analysis (Table 4.1), this contradiction appears here too when we analyze by splitting data on regional basis. As results reflects that educational level possess a negative but statistically insignificant relation with trust in government for Gilgit-Baltistan (Wang, 2010; Suh et al., 2012). Nevertheless, for Malakand division, this coefficient is positively and significantly related with trust in government (Christensen and Laegreid, 2005).

Similarly, males (Male) are found to be positively linked and also have statistically significant relationship with trust in government in Gilgit-Baltistan (Table 4.2) but in Malakand

(Table 4.3) region this relationship turns insignificant. Results indicate that male respondents are found to have more trust in government as compared to females in the region. Cultural, social and religious norms are among the factors which restrict female's participation for employment, political and other related activities. Our findings find support from the literature as Salim et al., (2017) gives evidence in favor of our findings that support that male's population is found to be more trusting as compared to females (Bauer and Fatke, 2014).

Likewise, in accordance with the aggregate results, our dummy variable that capture urban-rural effects (CITY\_DUM) indicate a negative association with trust in government. However, this nexus appears statistically significant for Gilgit-Baltistan while statistically insignificant for Malakand Region. Means people residing in urban areas are found to have less trust as compared to people living in rural areas. Similarly, results reflect a significant negative association between unemployment (U\_EMP) and trust in government Malakand regions. However, coefficient of unemployment is statistically insignificant for Gilgit-Baltistan Region. Evidences in favor of this indicators have mixed trend from the literature as Sztompa (1996) found a negative nexus between unemployment and trust in government while Bauer (2018) finds no linkage between employment and generalized trust.

On other hand, Ethnic diversity (ETH\_SUNNI) is positively related with trust in government and this nexus is statistically significant for Gilgit-Baltistan region (Table 4.2). While it appears negative and insignificant for Malakand region (Table 4.3). Results indicates that Sunni populations depicts more trust in government as compared to other sects. Our findings are in line with the available literature which indicate that ethnic diversity put a positive impact on trust in government (Alesina and La Ferrara, 2005).

Similarly, role of age (AGE) of the respondents shows a positive association with trust in government like aggregate analysis (Table 4.1) but contradiction arises while observing

significance of the coefficients. For both of the regions, age is found to have statistically insignificant impact on the trust in government. Literature has difference of opinions regarding the role of age for development of trust in government but our estimates are in line with the Wang (2016) and Kim (2016) which finds a positive relationship between age and trust in government in Japan and South Korea (Bauer and Fatke, 2014).

Unlike, whole data set analysis (Table 4.1), political affiliation (used dummy variables for affiliation with ruling party in provinces and capital) is found have contradicting results for both of the regions. As in Gilgit-Baltistan people affiliated with ruling party at provincial and national level have a positive nexus with trust in government. However, both of these indicators of the region of Gilgit-Baltistan appears to be statistically insignificant. While, in Malakand region, respondents affiliated with ruling party exerts a positive impact on trust in government and this relation is also found to be statistically significant. Means individuals who are affiliated with the ruling party are found to have a greater trust on respective government as compared to individuals who have sympathies for opposite political parties. In literature, Gershtenson, Ladewig and Plane (2006) support our argument by stating that citizens have greater faith in the party which they identify and are more trusting of institutions when their party controls them and more trusting of the government as a whole (Ramesh, 2017; Anderson and Tverdova, 2003).

Total monthly income is found to have significant positive nexus with trust in government for Gilgit-Baltistan. While, it appears to have a significant negative association for Malakand region. It says that people with higher monthly income have more trust in government in Gilgit-Baltistan region and higher monthly income appears to impede the level of trust people vest in their respective government in Malakand region. Similarly political efficacy is found to have significant positive relation with trust in government for both of the

regions. Means a sense of being competent and capable enough to participate into political process among the respondents have significant impact on the development of trust in government (Miller and Listhaug, 1990).

#### **4.2.2. Gender based Segregation of Data**

Table 4.4 presents the estimated results for Male respondents while Table 4.5 shows the estimated for females' respondents of the regions. In both of the tables presented trust in government is our dependent variable. A total number of 1188 male's respondent used in this analysis, on contrary for female's analysis a total of 211 observations were picked. The reason behind the lower number of female's respondent is mainly religious and cultural traditions of the selected areas which restrict the women interaction. Even then we tried to get as much response as possible by employing the services of female enumerators only where it was possible.

Like aggregate analysis, results obtained for both gender (Table 4.4, 4.5) depicts that satisfaction with public services delivery (SPS) has a positive and significant linkage with trust in government (Bouckaert et al., 2002; Christensen and Laegreid, 2005). Likewise, aggregate analysis (Table 4.1), we found strong significantly positive association between economic efficiency of the government (EE) and trust in government for both Male (Table 4.4) and Female (Table 4.5). This leads us that more the government succeed in eradicating economic issues prevailing in the society the more individual will put their trust in government (Liu and Raine, 2016; Wang 2016).

Further, civic engagement has negative impact in both of the cases and this impact is found to have significant impact on development of trust in government for males while statistically insignificant for females. These evidences are contradicting with the findings of Stoyan et al (2016) who observed that engagement with formal and informal organizations enhances trust of individuals towards their government.

**Table 4.4: FGLS Regression for Male Respondents**

Source	SS	Df	MS	Number of obs = 1188
Model	884.01	17	50	F(17,1012) = 43.96
Residual	1383.97	1170	1.182	Prob>F = 0
Total	2267.98	1187	1.910	R-squared = 0.3898
				Adj R-squared = 0.3809
				Root MSE = 1.0876

TG	Coef.	Std. Err.	t ratio	P value
SPS	0.191***	0.029	6.590	0.000
EE	0.174***	0.029	6.080	0.000
CIVICENG	-0.109***	0.038	-2.890	0.004
PHELP	-0.024	0.067	-0.360	0.717
CRP	-0.213***	0.039	-5.430	0.000
DR	0.104***	0.018	5.650	0.000
SC	0.091***	0.020	4.460	0.000
REGION	0.576***	0.107	5.390	0.000
LEDU	0.028*	0.016	1.770	0.077
CITY_DUM	-0.341***	0.092	-3.720	0.000
U_EMP	-0.144*	0.083	-1.740	0.082
ETH_SUNNI	0.366***	0.105	3.480	0.001
AGE	0.006*	0.003	1.860	0.063
RP_GB	0.392***	0.137	2.860	0.004
RP_CAP	0.153**	0.074	2.080	0.038
TIM	1.12E-06*	0.000	1.740	0.081
PE	0.064**	0.030	2.110	0.035
_cons	0.809	0.324	2.490	0.013

**Note:** Dependent variable is trust in government. \*\*\*, \*\* and \* indicate significant at 1%, 5% and 10% respectively

Furthermore, political factors also depict contrasting evidences across the gender categories, as in case of political participation (PHELP), it is found to have insignificant impact on improving trust in government for both males and females. Political efficacy is positively

related with trust in government but significance changes across gender as it is significant for males while found to be slightly insignificant for females. Primary reason behind insignificance of the political factors is low participation rate of the females in elections due to conservative's societal background of the areas. Irrespective of this fact, in GB election of 2015, women were found to vote with their feet<sup>31</sup>, which resulted highest ever female voter turnout of 61%. However, voting turnout for females remain lower in all parts of the Malakand division with highest female turnover of 44% from Chitral and lowest of 9.2% from Shangla district. However, Upper-Dir witness highest ever turnout after 1970's with a turnover of 31.49%<sup>32</sup>. It is the constituency where only 1 female voted in general election of 2013<sup>33</sup>. However, this turnover should not be considered as political empowerment of the females but a political reform, laws are required to be implemented with power to safeguard this basic right on females.

Similarly, the relationship between corruption (CRP) and trust in government is found to associated results obtained through full data set and as well as are in line with the literature (Meer, 2010; Ramesh, 2017). Likewise, as Jamal (2007) states that availability of democratic rights (DR) positively relates with trust in government. Our results for both Males and Females datasets support the literature through a positive and statistically significant association with trust in government (Kim, 2016; Wong et al., 2009). In Support of Putnam's hypothesis which states that social capital (SC) spill over to trust in government, results indicate a significant positive relationship between social capital and trust in government for both of the gender (Putnam, 1995; Hakhverdian and Mayne, 2012).

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<sup>31</sup> <https://www.thenews.com.pk/tns/detail/558824-women-voting-with-their-feet-in-gilgit-baltistan>

<sup>32</sup> <https://www.ecp.gov.pk/documents/genderaffairs/National%20Assembly.pdf>

<sup>33</sup> <http://pakrtidata.org/2018/08/08/pakistan-elections-2018-women-voters-gender-gap/>

To capture regional effects, we created a dummy variable (REGION) which is found to be have statistically significant positive relation with trust in government for both male and female data set. Estimated results indicate that people living in Gilgit-Baltistan put more trust in government as compared to people of Malakand division. A major reason for this low level of trust in government is decade long war between Pakistan army and Taliban that was fought in this region. Due to which majority of the people flee from their homes in other parts of country and named as internally displaced people (Zafar, 2011).

**Table 4.5: FGLS Regression for Female Respondents**

Source	SS	Df	MS	Number of obs = 211
Model	84.65	17	4.97	F(17, 165) = 3.9
Residual	246.50	193	1.277	Prob>F = 0
Total	331.15	210	1.57	R-squared = 0.2556
				Adj R-squared = 0.19
				Root MSE = 1.13

TG	Coef.	Std. Err.	t ratio	P value
SPS	0.189**	0.075	2.530	0.012
EE	0.192**	0.080	2.410	0.017
CIVICENG	-0.054	0.084	-0.650	0.517
PHELP	0.044	0.226	0.200	0.845
CRP	-0.167	0.106	-1.580	0.116
DR	0.070	0.049	1.420	0.157
SC	0.166**	0.069	2.400	0.017
REGION	0.333	0.306	1.090	0.279
LEDU	-0.036	0.042	-0.850	0.396
CITY_DUM	-0.161	0.239	-0.670	0.501
U_EMP	-0.206	0.250	-0.820	0.411
ETH_SUNNI	0.400	0.274	1.460	0.146
AGE	0.003	0.012	0.210	0.833
RP_GB	-0.135	0.309	-0.440	0.663
RP_CAP	-0.011	0.187	-0.060	0.954
TIM	2.05E-06	0.000	1.490	0.139
PE	0.097	0.071	1.360	0.175
_cons	0.449	1.068	0.420	0.675

Note: Dependent variable is trust in government. \*\*\*, \*\* and \* indicate significant at 1%, 5% and 10% respectively

However, level of education (LEDU) found to have contradicting evidences in literature for the development of trust in government. Unlike aggregate analysis (Table 4.1), this contradiction appears here too when we analyze by splitting data on gender basis. As results reflects that educational level possess a significant positive relation with trust in government for Male's (Christensen and Laegreid, 2005). On contrary, for Female's, this coefficient is negative and insignificantly related with trust in government (Wang, 2010; Suh et al., 2012).

Likewise, in accordance with the aggregate results, our dummy variable that capture urban-rural effects (CITY\_DUM) indicate a negative association with trust in government. However, this nexus appears statistically significant for male's while statistically insignificant for female. Similarly, results reflect a negative association between unemployment (U\_EMP) and trust in government. However, significant of this nexus differs across the gender as coefficient of unemployment is statistically significant for Male population and insignificant for female respondents. Evidences in favor of this indicators have mixed trend from the literature as Sztompa (1996) found a negative nexus between unemployment and trust in government while Bauer (2018) finds no linkage between employment and generalized trust.

On other hand, Ethnic diversity (ETH\_SUNNI) is positively related with trust in government and this nexus is statistically significant for both male and female respondents. Results indicates that Sunni populations depicts more trust in government as compared to other sects. Our findings are in line with the available literature which indicate that ethnic diversity put a positive impact on trust in government (Alesina and La Ferrara, 2005).

Similarly, role of age (AGE) of the respondents shows a mixed trend as found int literature. For instance, male respondent's age has a positive and significant relationship positive with trust in government. While, age has positive but insignificant impact on development of trust in government for females. Literature has difference of opinions regarding



the role of age for development of trust in government but our estimates are in line with the Wang (2016) and Kim (2016) which says finds a positive relationship between age and trust in government in Japan and South Korea (Bauer and Fatke, 2014).

Political affiliation is found have contradicting results, as male's affiliated with ruling party at Gilgit-Baltistan have a significant positive nexus with trust in government. Similarly, male's affiliated with central ruling party also insert a significant positive trust on their government. While, in case of female's, affiliation with ruling party have highly insignificant impact on development of trust. In literature, Gershtenson, Ladewig and Plane (2006) support our argument by stating that citizens have greater faith in the party which they identify and are more trusting of institutions when their party controls them and more trusting of the government as a whole (Ramesh, 2017; Anderson and Tverdova, 2003).

Total monthly income (TIM) is found to have significant positive nexus with trust in government for both genders. Similarly political efficacy is found to have a significant positive relation with trust in government in case of male respondents. While, it is found to be slightly insignificant for female respondents. Means a sense of being competent and capable enough to participate into political process among the respondents have significant impact on the development of trust in government (Miller and Listhaug, 1990).

In concluding sections 4.1 and 4.2, we discuss our hypothesis in the light of literature review and results obtained. Based on the results, we accept or nullify these hypotheses which we have constructed based on our literature review.

Our first hypothesis is "Trust in government increases with higher satisfaction with public services delivery and economic performance of the government. However, level of corruption impede trust in government". Table 4.1, clearly depicts the validity of our hypothesis as

satisfaction with public services delivery (SPS), Economic efficiency/performance of the country (EE) are positive and significant at 1% level of significance. This indicate that as the satisfaction of the individuals with public services and perceptions about the better economic efficiency improves resulting in higher trust in government and its institutions (Bouckaert et al., 2002; Christensen and Laegreid, 2005, Liu and Raine, 2016; Wang 2016). There is a major factor which hinders trust in government is corruption, our results indicate, in line with the literature, perceptions about the existence of corruption in public institutions or departments hamper the level of trust the people vest on their government (Anderson and Tverdova, 2003; Meer, 2010; Ramesh, 2017).

Regional and gender-based segregation of the data for robustness of the results also strongly support our argument of existence of positive nexus among the satisfaction with public services delivery and trust in government. Similarly, we found strong evidences about prevailing a positive relationship between economic efficiency and trust in government. At regional segregation, we found a statistically significant positive relationship between economic efficiency and trust in government in both regions at different significance level. Likewise, if we divide data on gender basis, our direction of the relationship is again in line with the aggregate results and literature review. Our results also strongly support the prevailing of a negative relation between the perception about the existence of corruption and trust in government. This nexus is also found to be significant for both of the regions and genders however, main reason behind low significant results of female case lies in low number of respondents that was due to cultural and religious hurdles that we encounter during data collection.

In concluding, we say that, we found sufficient evidence in favor of our hypothesis which states that satisfaction of the people with public services, better perceptions about the

economic efficiency of the government in tackling economic problems enhances the trust level of the citizens toward their government while perceptions and practical experience about the existence of corruption in government departments significantly reduces the level of trust which people vest in their government. These public services include but not limited to security, education, health related facilities, utility services, shelter, transportation, road infrastructure, employment, water and sanitation. Similarly, economic issues include unemployment, inflation, environmental degradation, poverty, income inequality, low economic growth, living standard of people and crimes.

Our 2<sup>nd</sup> hypothesis observes the role of socio-political factors like social capital, civic engagement and political factors. It states that “Availability of democratic rights (H3a), Peer’s influence (H3b), political opposition parties (H3c) and social trust (H3d) also frame citizens perceptions about trust in government”.

Availability of democratic rights in society is found to be an important factor in deriving towards a more trusting environment. Studies found a strong positive linkage between access to basic democratic rights in a country and trust level of people on its government (Kim, 2016; Wong et al., 2009). Our results also direct us a strong positive nexus between two variables. Our main result (Table 4.1.) depicts a significant positive relation between availability of democratic rights and trust in government. Most important this trend continues irrespective of whether we divide data on regional or gender basis.

Peer’s influence which is measured here through a number of indicators like civic engagement and ethnic diversification. Result of full data indicate important role played by the peer’s factors in developing trust in government. In Table 4.1, People who are found to be more engaged in civic activities (CIVICENG) are found to be less trusting as there is found to have a significant negative nexus between civic engagement and trust in government. These

results are conflicting with the available literature (Stoyan et al., 2016) which observe a positive association among these variables. However, ethnic diversification plays a significant positive role in improving trust in government (Alesina and La Ferrara, 2005).

In all of the cases of robustness, Civic engagement is also found to have a significant negative nexus with trust in government except for Gilgit-Baltistan region and female's where indicator turns insignificant. A possible reason behind this might to be lower engagement of the female's population of these areas in social activities due to religious obligations and regional norms. While a decade long war with the extremist in Malakand division and displacement of the population due to this war might be a major reason behind this negative but insignificant association. The more people engage in civic activities the more they realize the prevailing problems among the people and in society where the efforts of the government lacking. Similarly, ethnic diversification is found to be positively and significantly related with trust except for Malakand region where it is found to be insignificant.

Association with political ideologies and parties also inspire the public intentions to look at their respective governments. It found in the literature, affiliation with the ruling party insert a positive impact on the level of trust in government. Full data set (Table 4.1.) depicts that people who are affiliated with the ruling party at provincial level show significant positive trust on the government in Gilgit-Baltistan but people who are found to be affiliated with the ruling party at the central government put insignificant positive trust in government. The main reason behind this can be found in the findings of Liu and Raine (2016), where they find that level of authority and power are major determinants of difference of trust on central and local governments in China (Salim et al., 2017).

Robustness of the results also identify almost similar trends as in Gilgit-Baltistan, affiliation with ruling party have insignificant positive impact on trust while affiliation with

the central ruling party is highly insignificantly negative at 79.6% level of significance. On contrary, in Malakand division, affiliation with ruling party is positively related to trust and statistically significant. Similarly, male's affiliation with ruling party shows similar trends as of main data set while females' affiliation with the ruling party both at provincial level have insignificant negative relation with trust in government and insignificant positive relation with central government.

Social capital found to have positively related with the trust in government. Based on Putnam's hypothesis which state that social trust or capital spill over to trust in government, we also found that in case of aggregate and segregated analysis that higher level of trust prevailing among the people means higher social capital leads us to higher level of trust in government (Putnam, 1995; Hakhverdian and Mayne, 2012). In concluding, we support our hypothesis based on sufficient evidences presented above that availability of basic democratic rights in a society, social capital, ethnic diversification and affiliation with the ruling party insert a positive impact on fostering the nexus with trust in government. While on contrary to the literature review and our hypotheses, we do not find sufficient evidence to validate that a positive nexus exists among the civic engagement and trust in government.

Our 3rd hypothesis states that "Older people and people with better educational level put higher trust in government". Results obtained from our main data set fully support our hypothesis, as the level of education is positively associated with the trust in government (Christensen and Laegreid, 2005). Similarly, the relationship between age and trust is found to be positive and highly significant at 5% level of significance (Wang, 2016; Kim, 2016). But from the robustness, we found mixed evidences in favor of our hypothesis, as in case of Gilgit-Baltistan and female's educational level depict a negative nexus (Wang, 2010; Suh et al., 2012) but these findings are highly insignificant while in contrast to this educational level put

significant positive impact on trust in case of Malakand region and dataset of Male's respondents.

Similarly, the role of age is also found mixed, in case of regional based segregation we found positive but insignificant relation. While Male's data set support our hypothesis significantly. On contrary, Female's dataset shows insignificant negative value. Which means that people at their younger exhibit higher trust then that of older one. The main reason is that younger generation are found to be more energetic, supportive, optimistic toward government for their future but as the time passes if their expectations are left unattended or unfulfilled such optimistic attitude turned pessimistic but as they grew older and realize with experience the limitations of government and efforts made, they show a supportive and trusting behavior.

#### **4.3. Trust, Tax Morale and Willingness to pay Taxes**

This section presents the empirical results of our model presented in equation 3.15 and 3.16 by utilizing Ordered Probit Regression. This model (equation 3.15) discusses the tax morale and determinants important to frame this tax morale of individuals. The models, in table 4.6, use tax morale (TMO) as dependent variable. First independent variable in both of the models is trust in government. In first equation we use the estimated value of trust in government (TG\_EST) generated with the help of coefficient obtained in Table 4.1. While, in 2nd model, we take into account our index of trust in government (TG). Main idea behind employing both measures of trust in government is to check their robustness. As indicated through literature review, Table 4.6, shows a clear significant positive association between tax morale and trust in government (Birskeyte, 2014; Fre and Torgler; 2007, Salim et al, 2017). Our both indicators of trust show a positive nexus with tax morale although the significance level of their relationships varies slightly. Our results are in line with the literature as Torgler and Alm (2004) states that constructive activities by the states are intended to increase individual's

positive attitude and commitments toward government and this “reciprocity” can increase tax morale (Birskyte, 2014). The way authorities treat their citizens affect their perceptions about these authorities and their willingness to cooperate thus turning this connection into a mutual exchange relationship (Torgler, 2004; Torgler, 2005; Torgler and Schaltegger, 2005).

Similarly, corruption is another important factor which determines the way people look towards their respective governments. Corruption is found to have crowding-out effects of morality in a mutual relation between government and individuals. Corruption generally undermines the tax morale of individuals because they get frustrated. It is found that, in Latin America, people who had paid bribe to government officials have less tax morale as compared to individuals who didn't (Torgler, 2004; Torgler; 2005). So, if people possess positive perceptions about government efforts in tackling corruption their tax morale will rise. Here, our measure of corruption, satisfaction with government efforts in controlling corruption (CRP1) has significant positive relation with tax morale (TMO). By looking at the marginal values in both of the models presented in Table 4.6, we say that increases in proportion of respondents with more positive perceptions about corruption tends to rise in more respondents with higher tax morale.

Taxes are important factor to redistribute income among the people. By taxing rich, we distribute its benefits among poor segment of the society. Redistribution preferences play vital role in framing tax morale. Preferences for redistribution respond to individuals' position on the social ladder. People who believe that society offer equal opportunities are more averse to redistribution (Alsena and Ferrara, 2005). Wealthier individuals are less favorable to redistribution (Cruces et al, 2013; Lago-Penas and Penas, 2010). Yamamura (2015) states that individuals who perceive income differences to be large do prefer income redistribution. In Table 4.6, people who perceive income distribution is fair in Pakistan have less tax morale as

compared to people who thinks less fair income distribution. It can be explained as income distribution is transfer of wealth from high income to low income. Therefore, it reduces the wealth of rich people, which in turn causes them to low level of tax morale:

Here, in line with the literature, we find a significant negative relationship between income level (Income-level) and tax morale (TMO) means higher class individuals have less tax morale as compared to lower class individuals. Lago-Penas and Penas (2010) states that individuals who derive greater benefits from the state should tend to have a better understanding of necessity of paying taxes then those who do not. Torgler (2004, 2006) finds similarly results which states that tax morale is lower for upper class individuals (Martinez-Vazquez and Torgler, 2009).

However, Torgler (2005) finds insignificant relationship between income and tax morale. Actually, the effect of income on tax morale is difficult one to predict, given that it depends on individuals risk preferences and progression of income tax. Jackson and Milliron (1986), provides its justification with the help of human psychology, states that in countries with highly progressive income tax, taxpayers with a higher income realize a higher dollar return by evading, but with possibly less increase in utility due to declining marginal utility with income. On other hand, lower income taxpayers might have social stakes, but are also less able to tackle these risks because of higher marginal utility loss if they are caught and penalized. That's why, lower income class has highest tax morale as compared to their counterparts (Alm and Torgler, 2006; Torgler and Schaltegger, 2005) because in under developed nations lower segment of the society is mostly dependent on the governmentally provided public services therefor support for more taxes lies there for efficient provision or expansion of existing public services as compared to their counterparts.



On contrary, we encounter mixed evidences for relationship between education (LEDU) and tax morale. Alm and Torgler (2006) uses education as a proxy variable for income and find that lower level of education is associated with higher tax morale. Similarly, Torgler (2005) discovers insignificant negative nexus between education and tax morale. However, in our case, we find a significant positive association between level of education and tax morale. As people with better educational background know the importance of taxes for betterment of poor segment of society and for efficient working of government activities therefor have higher tax morale as compared to individuals who are uneducated or have less knowledge of government working (Lago-Penas and Penas, 2010; Martinez-Vazquez and Torgler, 2009).

**Table 4.6: Ordered Probit Regression for Tax Morale**

Dependent Variable: TMO	Model 1		Model 2	
	Coef.	Margins	Coef.	Margins
TG	0.104*	0.035*	0.059**	0.020**
CRP1	0.226*	0.076*	0.230*	0.079*
REDIST	-0.161***	-0.054***	-0.156***	-0.053***
INCOME LEVEL	-0.089**	-0.030**	-0.074**	-0.025**
LEDU	0.064***	0.022***	0.070***	0.024***
MARRIED	-0.241***	-0.081***	-0.188**	-0.064**
AGE	0.025	0.008	0.012	0.004
MALE	-0.153	-0.051	-0.126	-0.043
DEMOCRACY	0.243	0.082	0.166	0.057
CEC	-0.104***	-0.035***	-0.104***	-0.036***
RP_CAP	-0.106	-0.035	-0.089	-0.030
SOI	0.377**	0.127**	0.323**	0.110**
J.FAM	-0.065	-0.022	-0.057	-0.020
U.EMP	-0.105	-0.035	-0.093	-0.032
/cut1	-1.31***		-1.36***	
/cut2	-0.86***		-0.92***	

**Note:** TG is trust in government. In Model 1, we use estimated value from equation 3.14 and in Model 2 we use index of trust in government. \*\*\*, \*\* and \* indicate significant at 1%, 5% and 10% respectively. N1 = 1331, N2 = 1445. Wald chi2(14) of model1 = 88.71. Wald chi2(14) of model2 = 82.29. Marginal values are at highest tax morale score (3).

However, marital status might interact with tax system because of different treatment of married versus single individuals. Torgler (2005) finds that married couple show less tax morale as compared to single one. On contrary, Alm and Torgler (2006) show a positive correlation between married and tax morale (Torgler, 2006). In developed nations married individual get different type of incentives i.e., monthly payments for Children in UK. However, we found a significant negative relationship between married and tax morale (TMO) means married individuals reflect less tax morale as compared to their counterparts. Similarly, we find a positive relationship between age (Age) and tax morale (TMO) (Torgler, 2004; 2005). However, this relationship is highly insignificant in Table 4.6 for both of models. Elderly individuals are more sensitive to threats of sanctions and they have acquired greater stakes over the life time, so that the potential cost of sanctions increases. Elderly individuals are less risk takers as compared to younger individuals (Tittle, 1980).

Torgler (2005) finds that pro democratic attitude of individuals increases tax morale of individuals in Switzerland. We also find that satisfaction with democracy (Democracy) enhances individuals tax morale, however this coefficient is insignificant. Sources of information available to respondents is also insert a positive impact in process of framing their attitude towards government and thus tax morale. We also find that perceptions about current economic conditions (CEC) is significantly negatively related with tax morale. As individual perceive good economic condition proportion of individuals with higher tax morale decreases. Means individuals who perceive economic condition badly, are more tends to higher tax morale. One of the major reasons for this contradicting evidence against literature is lack of the development in the region that turns relationship between perceptions about economic condition and tax morale negative. Due to lack of trickle down affect the fruits of economic development can't be realized at grass root level. Similarly, another major reason can be traced

out through very basic assumption of economics i.e., economic agents are rational. They make their perceptions based on past experiences. So, in Pakistan economic progress always come with a cost i.e., higher current account deficit due to rising import bills that insert pressure on exchange rate and leads to imported inflations due to economic dependency on imported materials. This rising inflation and tough demands from international donors reduce the real income of individuals and hence tax morale. This vicious cycle of economic progress and inflation is hurting general masses since decades.

Likewise, we find a significant positive nexus between sources of information available (SOI) and tax morale of respondent. Higher availability of information tends toward higher tax morale of respondents. Dummy variables for joint family (J\_FAM) and unemployed (U\_EMP) depicts a negative relationship with tax morale but in contrast this relationship is found to be insignificant. Following literature, we find a negative relation between male and tax morale, though, this relationship is again insignificant in our case. Females are found to be have more tax morale as compared to their counterparts because of their risk averse nature and their traditional role in the society. Dummy variable to capture the effect political affiliation (RP\_CAP) is also insignificant. We state that affiliation with ruling party do not affect individuals tax morale.

In Table 4.7, we present estimation results of our model as shown in equation 3.16. Our dependent variable is willingness to pay for the public services (WTP) individuals are receiving. We state that trust in government, efforts to curb corruption, income level of individuals, level of education, satisfaction with democracy and political affiliation with ruling party in capital are significant positive determinants of willingness to pay for the public services. As these determinants increases so that proportion of individuals willing to pay for the services. However, gender, marital status, living in joint family, sources of information and

unemployment are negatively related with willingness to pay while only the coefficient of joint family is significant. Similarly, redistribution and current economic condition are positively related but their coefficients are highly insignificant.

**Table 4.7: Ordered Probit Regression for WTP Taxes**

Dependent Variable: WTP	Model 1		Model 2	
	Coef.	Margins	Coef.	Margins
TG	0.236***	0.079***	0.074***	0.025***
CRP1	0.319**	0.106**	0.365***	0.122***
REDIST	0.022	0.007	0.033	0.011
INCOME LEVEL	0.100**	0.033**	0.115***	0.038***
LEDU	0.090***	0.030***	0.088***	0.029***
MARRIED	-0.099	-0.033	-0.117	-0.039
AGE	0.084	0.028	0.103**	0.034**
MALE	-0.043	-0.014	-0.013	-0.004
DEMOCRACY	0.328**	0.109**	0.355**	0.118**
CEC	0.013	0.004	0.032	0.011
RP_CAP	0.242***	0.080***	0.281***	0.094***
SOI	-0.034	-0.011	-0.038	-0.013
J.FAM	-0.153*	-0.051*	-0.204**	-0.068**
U.EMP	-0.063	-0.021	-0.075	-0.025
/cut1	2.31***		1.77***	
<b>Note:</b> TG is trust in government. In Model 1, we use estimated value from equation 3.14 and in Model 2 we use index of trust in government. ***, ** and * indicate significant at 1%, 5% and 10% respectively. N1 = 1331, N2 = 1445. Wald chi2(14) of model1 = 117.1. Wald chi2(14) of model2 = 121.31. Marginal values are at highest tax morale score (3).				

#### 4.3.1. Robustness

To check the robustness of our results presented in Table 4.6, we divide our main data set into two categories based on regions. That is, Malakand and Gilgit-Baltistan.

Table 4.8 provide us mixed evidences in favor of our main results as presented in Table 4.6. As found in literature review, trust in government is highly significantly positive for Malakand region. On contrary, it is negative and insignificant for Gilgit-Baltistan region. Similarly, satisfaction with government efforts in curbing corruption enhances number of respondents

with higher tax morale but its coefficient is significant for Malakand region and insignificant for Gilgit-Baltistan.

Likewise, in line with literature, we find that individuals who perceive income differences to be large do prefer income redistribution. We find that respondent who perceive income distribution is unfair in Pakistan tends to have higher tax morale.

**Table 4. 8: Ordered Probit Regression on Regional Data**

Dependent Variable: TMO	Model 1		Model 2	
	Coef.	Margins	Coef.	Margins
TG	0.182***	0.062***	-0.009	-0.003
CRP1	0.438**	0.150**	0.155	0.049
REDIST	-0.181***	-0.062***	-0.149***	-0.047***
INCOME LEVEL	-0.081*	-0.028*	-0.141***	-0.044***
LEDU	0.080***	0.027***	0.055**	0.017**
MARRIED	-0.048	-0.016	-0.291**	-0.092**
AGE	0.010	0.003	-0.012	-0.004
MALE	-0.243	-0.083	-0.126	-0.040
DEMOCRACY	-0.030	-0.010	0.074	0.023
CEC	0.141***	0.048***	-0.263***	-0.083***
RP_CAP	-0.155	-0.053	-0.103	-0.032
SOI	0.715***	0.244***	0.124	0.039
J.FAM	-0.072	-0.025	-0.069	-0.022
U.EMP	0.104	0.035	-0.156	-0.049
/cut1	-0.188		-2.548***	
/cut2	0.293		-2.102***	

**Note:** TG is trust in government. Model 1 shows results for Malakand. While, Model 2 represent Gilgit-Baltistan. \*\*\*, \*\* and \* indicate significant at 1%, 5% and 10% respectively. N1 = 578, N2 = 867. Wald chi2(14) of model1 = 55.95. Wald chi2(14) of model2 = 105.21. Marginal values are at highest tax morale score (3).

Also, we find a significant negative relationship between income level and tax morale of individuals. Higher class individuals in both of the region tends to have significant lower tax morale. As indicated by our main dataset, we find education level of individual as a significant positive determinant of tax morale. As education level of individuals increase so that their level of tax morale enhances.

Similarly, we find a negative relationship between married individuals and their tax morale but it is significant for Gilgit-Baltistan and insignificant for Malakand region. Irrespective of the significance level, age depict a positive nexus with tax morale for Malakand Region and negative nexus for Gilgit-Baltistan. Similarly, dummy variable for gender (Male) is having an insignificant negative impact on tax morale. The coefficients of unemployment, democracy, affiliation with ruling party, and living in joint family are also having insignificant relationship with tax morale in both of the region. Sources of information is positively related with tax morale as in our main dataset however, its coefficient is significant for Malakand region and insignificant for Gilgit-Baltistan.

In contrast to literature, we find and justified a significant negative association between perceptions about current economic condition and tax morale in Table 4.6. As we split data on regional bases, we find conflicting evidences. Following our main results, CEC has a significant negative nexus with tax morale for Gilgit-Baltistan region. On contrary, as found in literature, we find a significant positive nexus between perceptions about current economic conditions and tax morale for Malakand region.

In summarizing, we say that, in Table 4.6, we have analyzed tax morale and its determinants. We find sufficient evidences in favor of our 4<sup>th</sup> hypothesis which states that higher trust in government leads to higher tax morale of individuals and their willingness to pay for the available public services. In addition, efforts to curb corruption, level of education and available sources of information's insert significant positive impact on tax morale. As individual with higher level of education and having excess to more sources of information possess higher tax morale. On contrary, married individuals, preferences about redistributions, income level, and perceptions about current economic conditions are significantly negatively

related with tax morale. However, age, satisfaction with democracy, political affiliation, living in joint family and unemployment are found to be insignificant.

#### 4.3.2. Path Analysis for SPS, TG and Tax Morale

This section represents our result of empirical model presented in equations 3.17-3.18 by utilizing generalized structural equation model and methodology of Hayes (2018). We obtain fitted values of TG from equation 3.17 with FGLS. These fitted values of TG are then used in equation 3.18 and equation is estimated with the help Ordered Probit Regression. Table 4.9, shows direct and indirect relationship between tax morale (TMO) and satisfaction with public services (SPS).

Table 4.9: GSEM between Tax Morale and Satisfaction with Services

Generalized Structural Equation Model		Number of observation:1531	
Response: TG		Number of observation: 1531	
Family: Gaussian		Link: Gaussian	
Response: TMO		Number of Observation: 1426	
Family: Ordinal		Link: Probit	
Variables	Coef.	Std.Err	p-value
<b>Dependent Variable: TG</b>			
SPS	0.387	0.026	0.000
_cons	2.723	0.108	0.000
<b>Dependent Variable: TMO</b>			
SPS	-0.077	0.029	0.008
LEDU	0.075	0.017	0.000
REDIST	-0.152	0.031	0.000
INCOME LEVEL	-0.082	0.034	0.016
MALE	-0.185	0.101	0.067
U_EMP	-0.252	0.1	0.012
RP_CAP	-0.051	0.074	0.49
SOI	0.375	0.158	0.018
TG	0.062	0.026	0.019
J.FAM	-0.026	0.077	0.741
<b>TMO</b>			
/cut1	-1.363	0.222	0.000
/cut2	-0.916	0.221	0.000
var(e.TG)	1.707	0.062	

Literature shows a significant positive nexus between satisfaction with public services and trust in government (Citrin and Green, 1986; Bouckaert et al., 2002; Christensen and Laegreid, 2005). Trust in government has significant positive association with tax morale as higher level of individuals trust on their respective government tends to higher tax morale (Torgler, 2004; Torgler, 2005; Torgler and Schaltegger, 2005).

However, some of the studies find a direct positive association between public services and tax morale. As Daude and Melquizo (2010) confirms that satisfaction with the government and public services is an important contributor to tax compliant attitude in Latin America and Caribbean (OECD, 2013; Leonardo and Martinez-Vazquez, 2015; Levi and Sacks, 2009).

Table 4.8, 1<sup>st</sup> equation, reflect a significant positive relationship between trust in government and satisfaction with public services. However, in 2<sup>nd</sup> equation, in contrast to the literature we find a significant negative relationship between tax morale and satisfaction with public services. However, Trust in government has significantly positive nexus with tax morale. Plausible cause behind this negative relation between public services and tax morale lies in concept of "Free Rider". As people of our sample area are acting as free rider since their regional annexation with Pakistan. Obviously, an individual who is already satisfied with the public services without paying anything in return have no motive to pay for such services. However, individuals who are less satisfied from publicly provided services are found to have more tax morale means they are more willing to pay for expansion or improvement of such public services.

In summarizing, we find a competitive mediation between SPS, TG and TMO. We find two paths through which public services can affect tax morale, 1<sup>st</sup> is direct relation between



SPS and TMO. Secondly, in indirect channel, trust acts as mediator between two. Table 4.10, depicts total effect of SPS on TMO is significantly negative as direct effect of SPS on tax morale. However, indirect effect of SPS on tax morale through is trust is significantly positive.

**Table 4.10: Effects of Direct and Indirect Channel for SPS and Tax Morale**

<b>SPS&gt;TG&gt;TMO</b>					
<b>Total Effect of SPS on TMO</b>					
<b>Effect</b>	<b>Se</b>	<b>t-ratio</b>	<b>p-value</b>	<b>LLCI</b>	<b>ULCI</b>
-0.0529	0.0280	-1.8900	0.0590	-0.1078	0.0021
<b>Direct effect of SPS on TMO</b>					
-0.077	0.029	-2.640	0.008	-0.134	-0.020
<b>Indirect Effect of SPS on TMO</b>					
0.024	0.010	2.310	0.021	0.004	0.044

#### **4.3.3. Path Analysis for Economic Efficiency, TG and Tax Morale**

Similarly, Table 4.11, shows direct and indirect relationship between perceptions about economic efficiency (EE), trust in government (TG) and tax morale (TMO). The first portion of the output have the regression of trust onto economic efficiency while 2<sup>nd</sup> portion of the output has the regression of tax morale onto economic efficiency, trust in government and other controlled variables.

In first portion of output, economic efficiency is significantly positively related with trust in government. While, in 2<sup>nd</sup> portion, economic efficiency has a negative nexus with tax morale and this coefficient is significant too. Trust in government has a positive and significant relationship with tax morale. This clearly, reflect a direct and indirect path for the relationship between economic efficiency and tax morale. As economic efficiency has a direct significant negative relation with tax morale while it also has an indirect significant positive effect through trust in government.

**Table 4.11: GSEM analysis between Economic Efficiency and Tax Morale**

Generalized Structural Equation Model		Number of observation:1448	
Response: TG		Number of observation: 1448	
Family: Gaussian		Link: Gaussian	
Response: TMO		Number of Observation: 1349	
Family: Ordinal		Link: Probit	
Variables	Coef.	Std.Err	p-value
<b>Dependent Variable: TG</b>			
EE	0.362	0.028	0.000
_cons	2.679	0.127	0.000
<b>Dependent Variable: TMO</b>			
	<-		
EE	-0.147	0.031	0.000
LEDU	0.065	0.018	0.000
REDIST	-0.149	0.032	0.000
INCOME LEVEL	-0.076	0.035	0.03
MALE	-0.192	0.107	0.073
U_EMP	-0.227	0.104	0.029
RP_CAP	0.012	0.077	0.881
SOI	0.251	0.16	0.116
TG	0.067	0.027	0.013
J.FAM	-0.054	0.08	0.5
<b>TMO</b>			
/cut1	-1.746	0.235	0.000
/cut2	-1.299	0.234	0.000
var(e.TG)]	1.768	0.066	

**Table 4.12: Effects of Direct and Indirect Channel for EE and Tax Morale**

EE>TG>TMO					
Total Effect of EE on TMO					
Effect	se	t-ratio	p-value	LLCI	ULCI
-0.122	0.030	-4.040	0.000	-0.182	-0.063
Direct effect of EE on TMO					
-0.147	0.031	-4.680	0.000	-0.208	-0.085
Indirect Effect of EE on TMO					
0.024	0.010	2.440	0.015	0.005	0.044

Table 4.12, depict effects of direct and indirect channel on tax morale. Both of the channels are significantly related. However, their effect differs in direction, as indirect path is significantly positive and direct path is significantly negative. Total effect is dominated by the effect of direct path and is found to be significantly negative.

#### 4.3.4. Structural relationship between Unemployment, TG and Tax Morale

Table 4.13 show a structural relationship between unemployment, trust in government and tax morale. First portion of the table reflects a significant negative relationship between unemployment and trust in government (Sztompa, 1996; Bauer, 2018). As unemployment rises so it tends to decrease the level of trust individual vest in their respective government.

**Table 4.13: GSEM Analysis between Unemployment and Tax Morale**

Generalized Structural Equation Model		Number of observation:1558	
Response: TG		Number of observation: 1558	
Family: Gaussian		Link: Gaussian	
Response: TMO		Number of Observation: 1450	
Family: Ordinal		Link: Probit	
Variables	Coef.	Std.Err	p-value
<b>Dependent Variable: TG</b>			
U_EMP	-0.380	0.107	0.000
_cons	4.314	0.038	0.000
<b>Dependent Variable: TMO</b>			
LEDU	0.076	0.017	0.000
REDIST	-0.174	0.030	0.000
INCOME LEVEL	-0.088	0.033	0.008
MALE	-0.152	0.100	0.128
U_EMP	-0.218	0.099	0.029
RP_CAP	-0.064	0.073	0.382
SOI	0.282	0.153	0.067
TG	0.038	0.025	0.133
J.FAM	-0.028	0.076	0.711
<b>TMO</b>			
/cut1	-1.198	0.208	0.000
/cut2	-0.763	0.207	0.000
var(e.TG)	1.945	0.070	

Similarly, unemployment has a significant negative nexus with tax morale as unemployed individuals show less tax morale as compared to their counterparts (Torgler, 2004; Bilgin, 2014). in line with literature, we find a significant negative association between unemployment and tax morale.

Hence, we say that unemployment effect tax morale through two paths i.e., 1<sup>st</sup> a direct path between unemployment and tax morale, secondly there also exist an indirect channel though trust in government as a mediator. However, in 2<sup>nd</sup> portion of output, we find positive association between trust in government and tax morale but this coefficient is slightly insignificant at 13% level of significance. Table 4.14, reflect the effect of direct and indirect channels on tax morale along with significance of each path. As found in literature, through direct path, we find a significant negative relationship between unemployment on tax morale.

However, effect of unemployment on tax morale through trust in government is negative and insignificant but again total effect of unemployment is significantly negative. we say that trust in government partially mediating the effect of unemployment on tax morale and this mediation is complementary too.

**Table 4.14: Direct and Indirect Effect of Unemployment on Tax Morale**

<b>U_EMP&gt;TG&gt;TMO</b>					
<b>Total Effect of U_EMP on TMO</b>					
<b>Effect</b>	<b>Se</b>	<b>t-ratio</b>	<b>p-value</b>	<b>LLCI</b>	<b>ULCI</b>
-0.232	0.099	-2.340	0.019	-0.426	-0.038
<b>Direct effect of U_EMP on TMO</b>					
-0.218	0.099	-2.190	0.029	-0.412	-0.023
<b>Indirect Effect of U_EMP on TMO</b>					
-0.014	0.010	-1.380	0.166	-0.034	0.006

#### 4.3.5. Structural relationship between Income level, TG and Tax Morale

Table 4.15 shows structural equation modeling between income level of individual and tax morale. First equation shows a significant positive nexus between income level and trust in government. As income level of individual rises so that their trust in government also enhances. However, in 2<sup>nd</sup> part of output we witness a significant negative nexus between income level and tax morale. Its means individual at lower income level has higher tax morale as compared to their counter parts (Torgler, 2004;2006; Martinez-Vazquez and Torgler, 2009). On contrary, the relationship between trust in government and tax morale is positive but slightly insignificant.

**Table 4.15: Structural Equation model for Income level and Tax Morale**

Generalized Structural Equation Model		Number of observation:1543	
Response: TG		Number of observation: 1543	
Family: Gaussian		Link: Gaussian	
Response: TMO		Number of Observation: 1450	
Family: Ordinal		Link: Probit	
Variables	Coef.	Std.Err	p-value
<b>Dependent Variable: TG</b>			
INCOME LEVEL	0.187	0.033	0.000
_cons	3.792	0.089	0.000
<b>Dependent Variable: TMO</b>			
LEDU	0.076	0.017	0.000
REDIST	-0.174	0.030	0.000
INCOME LEVEL	-0.088	0.033	0.008
MALE	-0.152	0.100	0.128
U_EMP	-0.218	0.099	0.029
RP_CAP	-0.064	0.073	0.382
SOI	0.282	0.153	0.067
TG	0.038	0.025	0.133
J.FAM	-0.028	0.076	0.711
<b>TMO</b>			
/cut1	-1.198	0.208	0.000
/cut2	-0.763	0.207	0.000
var(e.TG)	1.919	0.069	

**Table 4.16: Direct and Indirect Effect of Income on Tax Morale**

Income Level>TG>TMO					
Total Effect of INCOME-LEVEL on TMO					
Effect	Se	t-ratio	p-value	LLCI	ULCI
-0.081	0.033	-2.450	0.014	-0.146	-0.016
Direct effect of INCOME-LEVEL on TMO					
-0.088	0.033	-2.640	0.008	-0.154	-0.023
Indirect Effect of INCOME-LEVEL on TMO					
0.007	0.005	1.450	0.146	-0.002	0.016

Table 4.16, show effects of direct and indirect channels onto tax morale. We see a significant negative total effect of income level on tax morale. However, decomposition of paths shows that indirect effect is positive while direct effect is significantly negative. In total effect, negative direct effect undermines the positive indirect path.

#### 4.3.6. Path Analysis between Corruption, TG and Tax Morale

Similarly, Table 4.17 depicts paths through which perception about government efforts in curbing corruption (CRP\_1) affect tax morale. We see that total effect is significantly positive that is individuals' positive perceptions about government efforts enhance their tax morale. The effect of direct and indirect path is also positive but their significance level varies as direct path is positive and significant while indirect path is insignificant at 20% level of significance.

**Table 4.17: Direct and Indirect path analysis for Corruption and Tax Morale**

CRP1>TG>TMO					
Total Effect of CRP1 on TMO					
Effect	se	t-ratio	p-value	LLCI	ULCI
0.253	0.116	2.170	0.030	0.024	0.481
Direct effect of CRP1 on TMO					
0.236	0.117	2.020	0.043	0.008	0.465
Indirect Effect of CRP1 on TMO					
0.017	0.013	1.280	0.201	-0.009	0.042

In concluding, we discuss our hypothesis in the light of results which states that “institutional factors lead to higher trust in government which in turn rises the tax morale of citizens”. It is evident from Table 4.10 and 4.12 that satisfaction with public services and economic efficiency affects tax morale through two paths. Their direct effect is found to be significantly negatively related with tax morale. However, in line with the literature review, their indirect effect through trust in government is significantly positive. As satisfaction with these economic indicators rises so that their trust in government will rise which is lead to higher tax morale of individuals.

Similarly, Table 4.14, depicts the impact of unemployment on tax morale through direct and indirect paths. In line with the literature, we find that a significantly negative impact of unemployment on tax morale. However, in this case indirect effect is slightly insignificant at 16% level of significance. A rise in unemployment impedes the trust in government and hence hinders individual level of tax morale. Likewise, Table 4.16 shows the relationship between income level of individual and their tax morale. In line with the literature, we find that the direct effect of income of tax morale is negative. As income level increases the proportion of individuals with higher tax morale decreases. However, its indirect effect through trust in government is positive as income level is positively related with trust in government. a rise in the income level increase trust in government which ultimately enhances their tax morale.

Similarly, Table 4.17 related the government efforts to curb corruption with tax morale. As found in literature review, we find a significant positive nexus between the variables. As satisfaction among individuals about government efforts in reducing corruption increase so that the level of tax morale rises. In direct channel also favors, a rise in satisfaction of individuals about government activities against corruption raises their trust in government and this higher trust insert a positive impact on their tax morale. Here, irrespective of their direct effects, we

find sufficient evidences in favor of our hypothesis that satisfaction with institutional factors leads to higher trust in government which in turn enhances their level of tax morale.



## Chapter 5

### Conclusion and Policy Implications

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#### 5.1. Conclusion

We investigate the role of different determinants of trust in government for the Malakand and Gilgit-Baltistan region of Pakistan. A sample of 1700 individuals selected using multi stage stratified random sampling technique. Both descriptive analysis and FGLS regression, some noteworthy evidences about different determinants are summarize as follow.

Our findings indicate that satisfaction with services delivery by government departments and economic efficiency of the government are among important factors for enhancing trust level of people in government. Whereas, practical experiences with the persistent of corruption in government department restrict and reduces this level of trust. Availability of democratic rights foster public trust in government. Similarly, ethnic diversification depicts a positive association with trust in government. While on contrary to the literature review, civic engagement, on other hand is found to have a negative effect on development of public trust in government as more people engage themselves in civic activities, they will become more aware of shortcomings of government departments through the experiences of other individuals around them and will be more critical in evaluating the government. Political affiliation plays an essential role in such a situation as it has been discovered that those who are affiliated with ruling party emphatically favor them while assessing the level of trust in government. Similarly, favoring Putnam's hypothesis, we find that social capital spills over to trust in government. Social capital measured as the level of trust that people have on other individuals in the society. It has a significant positive association

with trust in government so if overall society is found to be trustworthy, they will also have more trust on their governments.

Similarly, the estimated results about control variables indicate that educational level and age pose positive effects in developing the level of trust in government, whereas unemployment is negatively associated. Findings of the study indicates that rural people hold more trust in government compare to their urban counterparts. The main reason for this might be the level of dependence on the government for the basic needs as people living urban areas are mostly self-sufficient due to having mostly an agricultural background while on contrary people living urban areas are strictly reliant on services provided by the government. Political participation though seeking any kind of help from concern persons shows negative relation with trust in government. However, level of monthly income and political efficacy contributes as positively in developing of trust in government.

We also found out existence of a significant positive association between trust in government and tax morale, trust in government and willingness to pay for the services. It states that as level of trust in government rises so that proportion of individuals with higher tax morale and willingness to pay rises. We also analyze the mediating role of trust in government in the relationship between institutional factors and tax morale. These institutional factors include satisfaction with public services, economic efficiency, corruption, unemployment and income level. We found that trust in government significantly positively mediate the relationship between these institutional factors and tax morale.

## **5.2. Policy Implications**

Although the study has some limitations, however we believe that our findings prove beneficial for policy recommendations as far as trust in government, tax morale and WTP taxes are concern. A linkage between trust in government, tax morale, and WTP taxes is clear through

our findings that largely in line with the literature review. Any effort to improve trust in government of individuals will lead to either improvement in tax morale or WTP taxes. Based on this we have recommended following policy recommendations from improvement of trust in government, tax morale and WTP taxes.

- Efforts should be made to improve the availability of essential public services that are considered necessary to uplift the living standard of individuals of the regions. That are availability of utility services like electricity which is considered an important input for business activities. Road infrastructure should be focused for the direct excess of farmers to major markets to culminate the role of middle man or brokers that captures a major share of output of farmers. Health and educational services should be improved at village or union council (BHU) level to eliminate the burden that incurred on individuals due to private provision such services.
- Policies should be direct to improve the economic efficiency of the country in general and this region specifically such that to reduce income inequality, poverty and unemployment. All of the objective, in this region, can be partially addressed and accomplished by protecting the economic incentive for the people of the region.
- Efforts should be made to reduce opportunities for corrupt practices and educating the citizens about reporting such misconducts, and inefficient public service delivery, does not only help in curbing corruption but also improves the quality of public services. There is need to create a sense of accountability within or out of departments, to raise moral cost of misconduct.
- Local representatives of political parties should be made responsible to solve problem of individuals or at least to guide them irrespective of their political association to reduce intraparty hostility. Local government system should be made

responsible to educate local populations about government efforts in solving problems.

- Important political reforms are necessary keeping in views the social or regional traditions of the area to motivate them about the importance of political leadership and political efficacy. Women political participation should be encouraged for enhancement of political trust because in different areas of these region women are barred from such basic rights.

### **5.3. Limitations of the Study**

Although, we have concluded this study positively and findings are in line with the available literature but still this study possess a lot of limitations. Some of those are mentioned below

- Major limitation of the study lies in its sample size that we have selected keeping in view the financial constraints and geographical conditions of the study area. Access to all the villages of the union council was a time-consuming process as well financially not viable option for a student without fundings or grants. Another major limitation in sample size is limited number of female respondents that is due to religious and cultural norms of the area.
- The scope of this study is limited to only Malakand and Gilgit-Baltistan regions of Pakistan. This should not be extended to other areas of Pakistan as cultural and demographic characteristics differ across all regions.
- Lack of previous studies on this topic from our selected area is another limitation of this study. This limit us to compare our results and process of sample selection from any previous study from said area.

- The topic of trust in government, tax morale, and willingness to pay taxes is so vast that it can't be addressed in a single work efficiently. So, this work is limited to the variables that we have included in it.

#### **5.4. Future Research**

This study can further be extended by taking a new sample size from each village of Malakand and Gilgit-Baltistan region including a significance number of female respondents. For an overall view about people trust in government and their willingness to pay taxes in NCP regions, we can further include newly merging regions (Formerly known as FATA) in KPK and the other regions of Balochistan province that exempted from taxes. For future research, one can also try to identify the role determinants of trust in government, tax morale, willingness to pay taxes by employing a sample size representing population of whole country.

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# Appendix A

Table A1: Correlation Matrix of Factors of Trust in government (Obs=1518)

	TG1	TG2	TG3	TG4	TG5	TG6	TG7	TG8	TG9	TG10	TG11	TG12	TG13	TG14	TG15
TG1	1														
TG2	0.5788	1													
TG3	0.3628	0.4304	1												
TG4	0.2918	0.2465	0.3135	1											
TG5	0.4572	0.4358	0.3147	0.3439	1										
TG6	0.4095	0.3808	0.2657	0.3031	0.6956	1									
TG7	0.2647	0.2763	0.3445	0.2969	0.3793	0.3992	1								
TG8	0.2724	0.3031	0.332	0.0434	0.2843	0.2982	0.3648	1							
TG9	0.266	0.2945	0.2657	-0.0017	0.2154	0.219	0.2945	0.6721	1						
TG10	0.2336	0.171	0.2167	0.2759	0.2244	0.2568	0.2961	0.2265	0.2233	1					
TG11	0.2236	0.1539	0.1853	0.2541	0.2435	0.2609	0.2339	0.1707	0.1311	0.3354	1				
TG12	0.2456	0.1529	0.2442	0.1261	0.2412	0.2159	0.1707	0.2443	0.1917	0.2225	0.3486	1			
TG13	0.2407	0.1766	0.2937	0.218	0.2459	0.2446	0.2251	0.189	0.1511	0.2235	0.3282	0.5767	1		
TG14	0.121	0.1706	0.327	0.1767	0.2003	0.1943	0.2788	0.2205	0.1919	0.2004	0.2306	0.4288	0.5712	1	
TG15	0.1938	0.2176	0.2717	0.5693	0.2964	0.2764	0.2765	0.045	0.002	0.2481	0.2595	0.1639	0.2446	0.286	1



**Table A2: Summary Statistics of Factors of Public Services**

Variable	Obs	Mean	Std. Dev.	Min	Max
SPS1	1,698	3.4865	1.1340	1	5
SPS2	1,698	3.2933	1.1882	1	5
SPS3	1,687	3.0605	1.2427	1	5
SPS4	1,694	2.6151	1.1924	1	5
SPS5	1,698	2.3186	1.1552	1	5
SPS6	1,699	2.5792	1.1491	1	5
SPS7	1,692	2.0567	1.1044	1	5
SPS8	1,693	2.8410	1.2641	1	5
SPS9	1,692	3.3091	1.1651	1	5

Note: SPS stands for Satisfaction with Services Delivery and corresponding number indicate the number of questions about particular services we have asked.

**Table A3: Correlation Matrix of Factors of Public Services**

	SPS1	SPS2	SPS3	SPS4	SPS5	SPS6	SPS7	SPS8	SPS9
SPS1	1								
SPS2	0.5148	1							
SPS3	0.3603	0.6846	1						
SPS4	0.2029	0.4079	0.4569	1					
SPS5	0.0932	0.1648	0.2005	0.3995	1				
SPS6	0.1957	0.2306	0.249	0.3598	0.6316	1			
SPS7	0.1668	0.2271	0.2412	0.2521	0.3172	0.3362	1		
SPS8	0.35	0.335	0.2963	0.2146	0.1597	0.2856	0.3242	1	
SPS9	0.3007	0.4065	0.3413	0.2993	0.1212	0.211	0.2033	0.4835	1



**Table A4: Summary Statistic of Economic Efficiency of Government**

Variable	Obs	Mean	Std.Dev	Min	Max
EE1	1,689	2.4985	1.0183	1	5
EE2	1,694	1.8896	0.9777	1	5
EE3	1,693	1.8441	0.9690	1	5
EE4	1,683	2.1895	0.9858	1	5
EE5	1,664	2.3822	1.0071	1	5
EE6	1,670	2.7725	1.1407	1	5
EE7	1,689	1.8218	0.9317	1	5
EE8	1,692	1.6229	0.9347	1	5
EE9	1,688	2.4781	1.0577	1	5
EE10	1,682	2.5547	1.1962	1	5

**Table A5: Correlation Matrix of Factors of Economic Efficiency (Obs = 1570)**

	EE1	EE2	EE3	EE4	EE5	EE6	EE7	EE8	EE9	EE10
EE1	1									
EE2	0.5267	1								
EE3	0.4892	0.7168	1							
EE4	0.4263	0.4828	0.5045	1						
EE5	0.3966	0.3869	0.399	0.4616	1					
EE6	0.2822	0.1945	0.2184	0.3186	0.4843	1				
EE7	0.3625	0.4626	0.5068	0.4555	0.3702	0.2118	1			
EE8	0.3787	0.5884	0.5728	0.41	0.3191	0.1557	0.5742	1		
EE9	0.307	0.2882	0.3097	0.3413	0.3313	0.2138	0.3374	0.2844	1	
EE10	0.2246	0.2022	0.2342	0.2224	0.2409	0.1666	0.2239	0.2126	0.3336	1

**Table A6: Summary of Factors of Corruption**

Variable	Obs	Mean	Std.Dev	Min	Max
CRP5a	1,694	2.7290	1.1858	1	5
CRP5b	1,649	2.5670	1.1398	1	5
CRP5c	1,509	2.7667	0.9009	1	5
CRP5d	1,695	3.1033	1.2063	1	5
CRP5e	1,688	3.3963	1.2036	1	5
CRP5f	1,697	3.8998	1.1888	1	5
CRP5g	1,692	3.4669	1.1671	1	5
CRP5h	1,645	2.7495	0.9942	1	5
CRP5i	1,688	2.6908	0.9759	1	5
CRP5j	1,679	2.7433	0.9323	1	5



**Table A7: Correlation Matrix of Factors of Corruption**

	CRP5a	CRP5b	CRP5c	CRP5d	CRP5e	CRP5f	CRP5g	CRP5h	CRP5i	CRP5j
CRP5a	1									
CRP5b	0.3364	1								
CRP5c	0.2603	0.5019	1							
CRP5d	0.2785	0.4182	0.377	1						
CRP5e	0.1865	0.3025	0.2203	0.6561	1					
CRP5f	0.2084	0.1488	0.1633	0.258	0.3045	1				
CRP5g	0.2458	0.2902	0.2822	0.3538	0.2851	0.496	1			
CRP5h	0.2904	0.3954	0.3915	0.3213	0.2041	0.2996	0.4131	1		
CRP5i	0.3068	0.4037	0.3871	0.3371	0.2492	0.2813	0.4157	0.6616	1	
CRP5j	0.2783	0.3964	0.4029	0.3262	0.2054	0.2722	0.3757	0.634	0.6664	1

**Table A10: Summary Statistics of Factors of Social Trust**

Variable	Obs	Mean	Std. Dev.	Min	Max
SC1	1,698	4.2373	0.9672	1	5
SC2	1,697	4.0236	0.9932	1	5
SC3	1,696	4.2022	0.8983	1	5
SC4	1,696	4.0531	1.0942	1	5

**Table A8: Summary of Factors of Democratic Rights**

Variable	Obs	Mean	Std.Dev	Min	Max
DR1	1,696	3.8202	1.0410	1	5
DR2	1,697	3.5062	1.0361	1	5
DR3	1,697	3.5421	1.0498	1	5
DR4	1,690	3.5195	1.0930	1	5
DR5	1,694	3.3955	1.2179	1	5
DR6	1,697	3.2410	1.2086	1	5

**Table A9: Correlation Matrix of Factors of Democratic Rights**

	DR1	DR2	DR3	DR4	DR5	DR6
DR1	1					
DR2	0.4251	1				
DR3	0.4391	0.5909	1			
DR4	0.3814	0.5618	0.5387	1		
DR5	0.4066	0.4511	0.4929	0.5296	1	
DR6	0.3311	0.3572	0.4892	0.4303	0.6334	1



**Table A11: Correlation Matrix of Factors of Social Trust (Obs= 1695)**

	SC1	SC2	SC3	SC4
SC1	1			
SC2	0.661	1		
SC3	0.4864	0.5698	1	
SC4	0.3338	0.3683	0.4173	1

**Table A12: Summary of Factors of Tax Morale**

Variable	Obs	Mean	Std.Dev	Min	Max
TMO1	1,696	1.6274	1.0415	1	5
TMO2	1,693	1.6704	1.1179	1	5
TMO3	1,695	1.6661	1.0819	1	5

**Table A13: Correlation Matrix of Factors of Tax Morale**

	TMO1	TMO2	TMO3
TMO1	1		
TMO2	0.7143	1	
TMO3	0.6063	0.679	1



**Table A14: District Wise Population of Malakand Division**

No	District	Population	No of Household
1	Buner	897,319	94,095
2	Chitral	447,362	61,619
3	Lower Dir	1,435,917	155,338
4	Upper Dir	946,421	120,228
5	Malakand District	720,295	91,414
6	Swat	2,309,570	274,620
7	Shangla	757,810	89,695
	<b>Total</b>	<b>7,514,694</b>	<b>887,009</b>

Source: District Wise population of Malakand Division according to Pakistan census 2017

**Table A15: District Wise Population of Gilgit-Baltistan**

No	District	Population	No of Household <sup>34</sup>
1	Ghanche	108,000	17,419.35
2	Kharmang		
3	Shigar	305,000	49,193.54
4	Skardo		
5	Ghizer	190,000	30,645.2
6	Gilgit	222,000	35,807
7	Hunza	148,000	23,871
8	Nagar		
9	Diamer	214,000	34,516.13
10	Astore	114,000	18,387.1
	<b>Total</b>	<b>1,301,000</b>	<b>209839.32</b>

**Note: 1.** These numbers are just projected increase in population measured from 1998 census. In 2015, Shigar district was crafted out of Skardo. Ghanche was divided into Ghanche and Kharmang districts. Hunza-Nagar was divided into Hunza and Nagar districts. **2.** Population census is under progress in GB therefore exact number of populations cannot be confirmed.

<sup>34</sup> No of household are determined by dividing total population in districts with average number of households in Pakistan. According to population survey of 2017, average size of house hold is 6.2.



**Table A16: Ordinary Least Square Regression**

Source	SS	Df	MS	Number of obs = 1213
Model	783.39	18	43.52	F(19, 1118) = 31.96
Residual	1625.97	1194	1.361	Prob>F = 0
Total	2409.37	1212	1.987	R-squared = 0.3251
				Adj R-squared = 0.3150
				Root MSE = 1.167

TG	Coef.	Std. Err.	T	P>t
SPS	0.154481	0.029983	5.15	0.000
EE	0.157776	0.030824	5.12	0.000
CIVICENG	-0.06099	0.038022	-1.6	0.109
PHELP	0.030483	0.073297	0.42	0.678
CRP	-2.08176	0.402378	-5.17	0.000
DR	0.125567	0.019241	6.53	0.000
SC	0.111598	0.023364	4.78	0.000
REGION	0.673177	0.102455	6.57	0.000
LEDU	0.026471	0.016136	1.64	0.101
CITY_DUM	0.271946	0.10285	2.64	0.008
U_EMP	-0.39214	0.100463	-3.9	0.000
ETH_SUNNI	-0.21887	0.10244	-2.14	0.033
AGE	0.458227	0.100095	4.58	0.000
RP_GB	0.00839	0.003642	2.3	0.021
RP_CAP	0.228968	0.127585	1.79	0.073
TIM	0.073267	0.077124	0.95	0.342
PE	1.74E-06	6.15E-07	2.83	0.005
_cons	0.06921	0.030556	2.27	0.024

**Table A17: Jarque-Bera normality test**

Jarque-Bera normality test:	2.09	Chi (2)	0.3517
Jarque-Bera test for Ho: normality:			



**Table A18: Testing Multicollinearity**

Variable	VIF	1/VIF
REGION	2.27	0.439882
ETH_SUNNI	2.22	0.451464
SPS	1.36	0.733937
EE	1.34	0.748971
CRP	1.33	0.754017
DR	1.31	0.760658
RP_GB	1.22	0.822935
MALE	1.21	0.828465
PHELP	1.19	0.837024
LEDU	1.17	0.854705
TIM	1.16	0.858974
SC	1.14	0.874536
RP_CAP	1.13	0.88243
CIVICENG	1.1	0.907603
AGE	1.09	0.914769
U_EMP	1.05	0.949444
CITY_DUM	1.05	0.951355
PE	1.05	0.954362
<b>Mean VIF</b>	<b>1.30</b>	

**Note:** As a rule of thumb a variable having vif value greater than 10, may need further examination because it may cause multicollinearity problem. However, in our case all the variables have vif values less than 3 so there exist no multicollinearity among the independent variables.





**Table A19: Specification Test for Linear Regression**

Source	SS	Df	MS	Number of obs = 1213		
Model	786.6318	2	393.3159	F(2, 1135) = 293.28		
Residual	1622.736	1,210	1.341104	Prob>F = 0		
Total	2409.367	1,212	1.987927	R-squared = 0.3265		
				Adj R-squared = 0.3254		
				Root MSE = 1.1581		
TG	Coef.	Std. Err.	T	P>t	[95% Conf. Interval]	
_hat	0.552783	0.290732	1.9	0.057	-0.01761	1.123177
_hatsq	0.054777	0.035248	1.55	0.12	-0.01438	0.123931
cons	0.875841	0.59134	1.48	0.139	-0.28432	2.036006
Note: Rejection of "_hatsq" means that our model is well specified						

**Table A20: Ramsey RESET Test Using Powers of the Fitted Values of TG**

Ho: model has no omitted variables
F(3, 1191) = 1.59
Prob> F = 0.1890



**Table A21: Breusch-Pagan Test for Heteroskedasticity**

Source	SS	df	MS	Number of obs = 1213
Model	307.93856	18	17.107698	F(18, 1194) = 5.65
Residual	3616.8187	1,194	3.0291614	Prob>F = 0.000
Total	3924.7573	1,212	3.2382486	R-squared = 0.0785
				Adj R-squared = 0.0646
				Root MSE = 1.7404

e2	Coef.	Std. Err.	T	P>t
SPS	-0.0643691	0.0447183	-1.44	0.15
EE	-0.2240412	0.045972	-4.87	0.00
CIVICENG	-0.029466	0.0567069	-0.52	0.603
PHELP	0.2707546	0.1093178	2.48	0.013
CRP	0.4775999	0.6001233	0.8	0.426
DR	0.0111864	0.0286962	0.39	0.697
SC	0.0674078	0.0348466	1.93	0.053
REGION	0.6553727	0.1528054	4.29	0.00
LEDU	0.0638941	0.0240661	2.65	0.008
MALE	0.2093594	0.1533947	1.36	0.173
CITY_DUM	-0.260448	0.1498341	-1.74	0.082
U_EMP	-0.3931311	0.1527831	-2.57	0.01
ETH_SUNNI	0.2509066	0.1492865	1.68	0.093
AGE	0.0073413	0.0054319	1.35	0.177
RP_GB	-0.2890254	0.1902857	-1.52	0.129
RP_CAP	0.108029	0.1150257	0.94	0.348
TIM	7.72E-07	9.17E-07	0.84	0.401
PE	0.1414378	0.0455729	3.10E+00	0.002
_cons	0.1514213	0.5323189	0.28	0.776



## Appendix B (Questionnaire)

Questionnaire ID

Public Service Delivery, Trust, Tax Morale, and Willingness to Pay Taxes: Perceptions of  
Economic Agents in Malakand and Gilgit-Baltistan

Asalam.o.alaikum: My name is Qasim Akhter and a PhD scholar of economics at International Institute of Islamic Economics, International Islamic University Islamabad. I am conducting this survey as a requirement for my PhD research work. We request you to take few minutes of your time to response the following questions as much as you can and its applicability. This survey is for educational purposes, the information that you provide will be treated with uTMOst confidentiality.

This questionnaire aims to collect data on perceptions of economic agents about public service delivery, trust, tax morale and their impact on willingness to pay taxes in Malakand division and Gilgit-Baltistan region of Pakistan.

Are you allowing us permission to utilize this information provided to extract out required information for educational purpose without disclosing data to any other party? Yes ☐ No ☐

Name of Enumerator: \_\_\_\_\_ Date of interview: \_\_\_\_/\_\_\_\_/\_\_\_\_

Area Type (Rural/Urban): \_\_\_\_\_ Village/City: \_\_\_\_\_

Street: \_\_\_\_\_ Mohala: \_\_\_\_\_ Ward: \_\_\_\_\_

Union council: \_\_\_\_\_ Tehsil: \_\_\_\_\_

District: \_\_\_\_\_ Place of Interview: \_\_\_\_\_

Name of Respondent: \_\_\_\_\_ Contact Number: \_\_\_\_\_

Section A: Household Information

A1: Name of the Household Head:									
A2 Relationship to Head of Household	A3 Gender	A4 Age (Years)	A5 Marital Status	A6 Type of Education	A7 Level of Education (If conventional)	A8 Level of Education (If religious)			
1) Self	1) Male		1) Married	1) Conventional	1) Primary	1) Sanawiya Aama (Metric)			
2) Wife	2) Female		2) Unmarried	2) Madrassa	2) Middle	2) Sanawiya Khusa (F.A)			
3) Daughter			3) Widow	3) (Religious)	3) Matriculation	3) Shahadat Ul Aaliya (B.A)			
4) Son			4) Divorced	3) None	4) Intermediate	4) Shahadat Ul Alumniya (M.A)			
5) Sister					5) 14 Bachelor's	5) Takhassus			
6) Mother					6) 16 Bachelor's				
7) Any Other					7) Masters				
					8) MS/Mphil				
					9) Ph.D				
A9 Family Type	A10 Employment Status	A11 Employment	A12 Family Size	A13 Religious Affiliation	A14 If Muslim, then with which ethnic group do you belong too?	A15 Please tell us the name of your ethnic group if it's not listed?	A16 Health		
1) Joint	1) Self			What is your religion?	1) Shia		1) Good		
2) Single	2) Private Institution			1) Muslim	2) Sunni		2) Not Good		
	3) Federal Government Institution			2) Non-Muslim	3) Ismaili				
	4) Provincial Government Institution				4) Noor Bakhisia				
	5) Unemployed				5) If other (Please mention name)				
	6) Student								



*Section B: Household Income Profile*

**B: Average Income of the Household (From different sources of Income)**

Source of income	Monthly/ Annually	PKR	Source of income	Monthly/ Annually	PKR
a) Main job			b) Overseas		
c) Part time job/Occasional/Seasonal (Like Consultancy/Commission)			d) Share/Stock/ Property/Family/ Agricultural		
e) Business			f) Any other		
g) What was your income 5 years before?			h) According to your expectations, what will be your expected income after 5 years?		

*Section C: Household Expenditure Profile*

**C: Average expenditure of household on the following components according to their needs**

Expenses	Annually/ Monthly	PKR	Expenses	Annually/ Monthly	PKR
a) Compulsory Religious expenditures (Zakat, Khums, Fitrana)	Annually		b) Non-Compulsory Religious Expenditures (Sadqa, Nazar, Religious Organizations)	Annually	
c) Rent of House	Monthly		d) Kitchen Expenses	Monthly	
e) Transportations	Monthly		f) Health	Monthly	
g) Utility Bills (Phone, Gas, Elect)	Monthly		h) Educations	Monthly	
i) Personal Expenses (Makeup, Bathing, Smoking)	Monthly		j) Pay and Other Help to Household Servants	Monthly	



#### Section D: Economic Evaluation of the Country

<b>D1: How would you rate the overall, Current economic condition of our country (Pakistan)?</b>				
1) Very bad	2) Bad	3) Neutral	4) Good	5) Very Good
<b>D2: How do you rate the economic situation of your family today?</b>				
1) Very bad	2) Bad	3) Neutral	4) Good	5) Very Good

**D3: Following are some fundamental issues/problems facing Pakistan's economy, how much are you satisfied with the economic performance of current government in solving these problems/issues.**

<b>1. Income Inequality</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>2. Unemployment</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>3. Poverty</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>4. Low Economic Growth</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>5. Low Living Standard of People in the Pakistan</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>6. Low Living Standard of People in your Region/Area</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>7. Heavy Burden of Public Debt</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>8. Inflation (Increase in general price level)</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>9. Environmental Degradation</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>10. Crimes (Theft, Fraud, Murder, etc.)</b>	1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied

#### Section E: Trust in government

Being an economic agent how much you trust on the following Government Institutions

<b>1. The President House</b>	1) Do not trust at all	2) Somewhat not trust	3) Neutral	4) Somewhat Trust	5) Fully Trust
<b>2. Prime Minister Secretariat</b>	1) Do not trust at all	2) Somewhat not trust	3) Neutral	4) Somewhat Trust	5) Fully Trust
<b>3. Judiciary</b>	1) Do not trust at all	2) Somewhat not trust	3) Neutral	4) Somewhat Trust	5) Fully Trust



<b>4. Political Parties</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>5. National Parliament</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>6. Provincial Government</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>7. Civil Services</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>8. Armed Forces</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>9. Intelligence Organization</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>10. Police</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>11. Local Government (If any)</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>12. Print Media (Newspapers)</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>13. Social Media</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>14. Electronic Media</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust
<b>15. Politicians</b>
1) Do not trust at all    2) Somewhat not trust    3) Neutral    4) Somewhat Trust    5) Fully Trust

*Section F: Social Capital*

**F1: We have listed various types of organizations that people belong to. Could you identify the three most important organizations or formal groups you belong to? You can tell us the name and we can identify the appropriate categories for you.**

Organization Name	Please check ✓ to your choice	Frequency of attendance in these Organizations on weekly basis
1) Political Parties		
2) Religious Group		
3) Community Associations		
4) Sports/Recreational		
5) Charities/NGO		
6) Labor/Farmer Union		
7) Professional Organization		



8) Business Associations		
9) Parent Teacher's Associations		
10) Alumni Associations		
11) Other Volunteer Organizations		
12) Student Associations		
90) Not a member of any organization		

**F2: On average, how many times you visit your nearby Mosque or Imam Bargah or Jamat-Khana in a day?**

**F3: Generally speaking, would you say that "Most people can be trusted" or that you must be very careful in dealing with people?**

1) Most people can be trusted

2) You must be careful in dealing

**F4: How much trust do you have in each of following types of people?**

Please choose the code and fill in respective box.

<b>1. Your Relatives</b>
1) Do not trust at all      2) Somewhat not trust      3) Neutral      4) Somewhat Trust      5) Fully Trust
<b>2. Your Neighbors</b>
1) Do not trust at all      2) Somewhat not trust      3) Neutral      4) Somewhat Trust      5) Fully Trust
<b>3. Friends</b>
1) Do not trust at all      2) Somewhat not trust      3) Neutral      4) Somewhat Trust      5) Fully Trust
<b>4. Religious Scholar's</b>
1) Do not trust at all      2) Somewhat not trust      3) Neutral      4) Somewhat Trust      5) Fully Trust

*Section G: Satisfaction with Public Services*

**G: Based upon your personal experiences with the services provided by the government, how much satisfied are you with the following services**

<b>1. Security</b>
1) Very Concerned      2) Concerned      3) Neutral      4) Satisfied      5) Fully satisfied
<b>2. Education</b>
1) Very Concerned      2) Concerned      3) Neutral      4) Satisfied      5) Fully satisfied
<b>3. Health</b>
1) Very Concerned      2) Concerned      3) Neutral      4) Satisfied      5) Fully satisfied





<b>4. Utility Services (Electricity, Gas, Telephone Service, etc.)</b>				
1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>5. Road Infrastructure</b>				
1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>6. Transportation</b>				
1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>7. Employment</b>				
1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>8. Water and Sanitation</b>				
1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied
<b>9. Shelter</b>				
1) Very Concerned	2) Concerned	3) Neutral	4) Satisfied	5) Fully satisfied

*Section H: Partisanship*

<b>1. Among the political parties of Pakistan, which party if any do you feel close to?</b>	
Party A .....	Party B (If any) .....
<b>2. How close do you feel to?</b>	
1) Very Close	2) Somewhat Close
3) Just a little close	
<b>3. Have you casted your Vote in Last elections?</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>

*Section I: Political Participation*

**Have you tried to avail any of the following options in last 5 years because of personal/family or neighborhood problem?**

1. Contacted Elected Official or Legislative at any level.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. Contacted Officials at Higher level.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. Contacted Traditional or Community Leaders.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4. Contacted other Influential People.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5. Contacted News/ Media.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

*Section J: Democracy*

<b>1. Overall, how much are you satisfied; the way democracy works in Pakistan? Are You?</b>	
1) Very Concerned	2) Concerned
3) Neutral	4) Satisfied
5) Fully satisfied	
<b>2. In your opinion how much of a democracy is in Pakistan?</b>	1) Not Democracy 2) Democracy with minor problems 3) Democracy with major problems 4) Full Democracy



### *Section J (b): Availability of Democratic Rights*

Please rate how much are you satisfied with the availability of these democratic rights in your area

<b>1. Right to Vote</b>
1) Very Concerned    2) Concerned    3) Neutral    4) Satisfied    5) Fully satisfied
<b>2. Right to Participate in any kind of Organization</b>
1) Very Concerned    2) Concerned    3) Neutral    4) Satisfied    5) Fully satisfied
<b>3. Right together and Demonstrate</b>
1) Very Concerned    2) Concerned    3) Neutral    4) Satisfied    5) Fully satisfied
<b>4. Right to Information</b>
1) Very Concerned    2) Concerned    3) Neutral    4) Satisfied    5) Fully satisfied
<b>5. Freedom of Speech</b>
1) Very Concerned    2) Concerned    3) Neutral    4) Satisfied    5) Fully satisfied
<b>6. Right to Criticize the Government</b>
1) Very Concerned    2) Concerned    3) Neutral    4) Satisfied    5) Fully satisfied

### *Section K: Political Efficacy*

How much do you agree with following statements?

<b>1. I think I or my family have ability to participate into Politics.</b>
1) Strongly Disagree    2) Somewhat Disagree    3) Neutral    4) Somewhat Agree    5) Strongly Agree
<b>2. People like me do not have any influence over what government does.</b>
1) Strongly Disagree    2) Somewhat Disagree    3) Neutral    4) Somewhat Agree    5) Strongly Agree

### *Section L: Citizenship*

<b>1. How proud are you to be a citizen of Pakistan?</b>
1) Very Concerned    2) Concerned    3) Neutral    4) Proud    5) Very Proud
<b>2. Given the chance, how willing would you be to go and live in another country?</b>
1) Strongly not willing    2) Somewhat not willing 3) Neutral    4) Somewhat willing 5) Strongly willing

### *Section M: Corruption*

<b>1. How much are you satisfied with the governmental activities in curbing corruption?</b>
1) Very Concerned    2) Concerned    3) Neutral    4) Satisfied    5) Fully satisfied
<b>2. How much are you satisfied with the working of NAB and related institutions?</b>
1) Very Concerned    2) Concerned    3) Neutral    4) Satisfied    5) Fully satisfied



3. Has anyone ever demanded bribe from you? Yes ☐ No ☐
4. Have you ever paid bribe to any one for your work? Yes ☐ No ☐
5. Based upon your personal experience, please rate the following departments about the existence of corruption in it?

<b>a. Police</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent
<b>b. WAPDA</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent
<b>c. SUI GAS</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent
<b>d. Health</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent
<b>e. Education</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent
<b>f. Military</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent
<b>g. Judiciary</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent
<b>h. Customs</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent
<b>i. Excise &amp; Taxation</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent
<b>j. Revenue Department</b>				
1) Fully corrupt	2) Partially corrupt	3) Neutral	4) Partially transparent	5) Transparent

*Section N: Redistribution*

<b>1. How fair do you think income distribution is in Pakistan?</b>				
1) Fully Unfair	2) Somewhat Not Fair	3) Equally	4) Somewhat fair	5) Fully Fair
<b>2. Do you agree or disagree that it is the duty of government to reduce income inequality?</b>				
1) Strongly Disagree	2) Somewhat Disagree	3) Neutral	4) Somewhat Agree	5) Strongly Agree
<b>3. Where would you put yourself while looking at your social status?</b>		1) Poor 2) Between poor and middle 3) Middle income 4) Between rich and middle 5) Richer		



*Section O: Tax morale*

<b>1. Is it justified that “In their personal interest citizens can cheat on tax if they have chance”?</b>
1) Strongly not justified 2) Somewhat not justified 3) Neutral 4) Somewhat justified 5) Strongly justified
<b>2. Is it justified that “In interest of family “citizens can cheat on tax if they have chance”?</b>
1) Strongly not justified 2) Somewhat not justified 3) Neutral 4) Somewhat justified 5) Strongly justified
<b>3. Is it justified that “In interest of society “citizens can cheat on tax if they have chance”?</b>
1) Strongly not justified 2) Somewhat not justified 3) Neutral 4) Somewhat justified 5) Strongly justified

*Section P: Sources of Information*

**P1: For each of the following sources, please indicate that how often do you use it to obtain information about political and governmental activities.**

	Daily	Weekly	Monthly	Less than Yearly	Never
1) Daily Newspaper					
2) Printed Magazine					
3) TV News					
4) Radio News					
5) Mobile Phones					
6) Social Media Networks (FACEBOOK, Twitter)					
7) Email					
8) Internet (Google etc)					
9) Talk with Friends and colleagues					

**P2: Do you use Internet? (If no proceed to section Q) Yes ☐**

☐

<b>1. Do you have Internet access at home?</b>	<b>2. Do you have Internet access on your mobile phone?</b>	<b>3. How often do you use Internet?</b>
1) Yes 2) No	1) Yes 2) No	1) Several times a day 2) Half hour to one hour 3) Once a day 4) Once a week 5) Once a month 6) Hardly never 7) Never



<b>4. Do you use social media networks? Like</b>  1) FACEBOOK 2) Twitter 3) LinkedIn 4) Others	<b>5. How often do you use Internet and social media to find information about politics and government?</b>  1) Everyday 2) Several times a week 3) Once a week 4) Twice a week 5) A few times in a month 6) A few times in a year 7) Never	<b>6. How often do you use Internet including social media networks to express your opinion about political and governmental activities?</b>  1) Everyday 2) Several times a week 3) Once a week 4) Twice a week 5) A few times in a month 6) A few times in a year 7) Never
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Section Q: Willingness to Pay Taxes

<p>1. Tax paying is a moral duty of all the citizens of the country according to their ability to pay tax. What would be your response if government removes the status of free tax zone?</p> <p>1) Would you cooperate without conditions? 2) Resist against decision 3) Neutral 4) Would you cooperate with your own conditions</p>	<p>2. What type of taxes are currently imposed in your Area?</p> <p>1) Income Tax 2) Workers Welfare Fund 3) Capital Value Tax 4) Worker's Profit Participation Fund 5) Custom Duties 6) Federal Excise Tax 7) Sales Tax 8) Property Tax 9) Provincial Excise Duties 10) Stamp Duties 11) Motor Vehicle Tax 12) Other 13) Don't Know</p>	<p>3. What type of taxes are still exempted from your area?</p> <p>1) Income Tax 2) Workers Welfare Fund 3) Capital Value Tax 4) Worker's Profit Participation Fund 5) Custom Duties 6) Federal Excise Tax 7) Sales Tax 8) Property Tax 9) Provincial Excise Duties 10) Stamp Duties 11) Motor Vehicle Tax 12) Other 13) Don't Know</p>	<p>4. Based on your perceptions about economic performance of the country listed in section D, are you willing to pay taxes?</p> <p>1) Yes 2) No</p>
<p>5. Based on your perceptions about public services delivery in your area listed in section G, are you willing to pay taxes?</p> <p>1) Yes 2) No</p>	<p>6. Currently, Are you a tax payer?</p> <p>1) Yes 2) No</p>	<p>7. If Yes, then how much tax you have paid in last year?</p> <p>1) Income Tax _____ PKR 2) Workers Welfare Fund _____ PKR 3) Capital Value Tax _____ PKR 4) Worker's Profit Participation Fund _____ PKR 5) Custom Duties _____ PKR 6) Federal Excise Tax _____ PKR 7) Sales Tax _____ PKR 8) Property Tax _____ PKR 9) Provincial Excise Duties _____ PKR 10) Stamp Duties _____ PKR 11) Motor Vehicle Tax _____ PKR Approximately Total Amount: _____</p>	

