

RESEARCH ARTICLE

Determinants of Tax Morale using Structural Equation Model (SEM)

Pacaldo, Raymond S.
Central Mindanao University, Philippines
raymondspacaldo@cmu.edu.ph

Ferrer, Rodiel C.
De La Salle University – Manila, Philippines
rodiel.ferrer@dlsu.edu.ph

This paper analyzes the impact of tax enforcement, trust in government, and demographic characteristics on the tax morale of firms in the Philippines. From the database of Business Environment and Enterprise Performance Survey (BEEPS), 864 firms were taken and analyzed using partial least squares on the structural equation of modeling (PLS-SEM). In the analysis, only trust in government, organizational form, and firm location provided a significant impact to tax morale. Thus, firms pay taxes religiously when the government acts trustworthily. On the other hand, sole proprietorship and Metro Manila firms exhibited lower tax morale as compared to corporations and outside capital city entities. The government should enhance the delivery of services as well as eliminate corruption to improve the firm's tax compliance.

Keywords: demographic characteristics, PLS-SEM, tax enforcement, trust in government, tax morale

JEL Classification: H26, H29, K34, C3

The public's equity perception towards the government's delivery of goods and services in return to tax paid worsened over time. This resulted in decreasing attitude towards taxation (Batranea, Ramona - Anca, & Batrancea, 2012). This happened notwithstanding the administration's strict usage and different instituted laws and guidelines to push citizens in paying taxes and punish evaders for nonpayment. If taxpayers were demotivated to pay, the government's

revenue would decline, affecting the economic activities in the country. In fact, the Philippines' economic performance on per capita basis has declined from being next to Japan during World War II to be lower compared to some Southeast Asian countries like Singapore, Malaysia, and Thailand in 2012 (Alonso i Terme, 2014).

As tax compliance can be explained by tax morale (Alm & McClellan, 2012; Filippin, Fiorio, & Viviano,

2013; Torgler, 2003; Torgler, Demir, Macintyre, & Schaffner, 2008), improving tax behavior can be done by understanding tax morale. Thus, this study was conceptualized to investigate the determinants of firms' tax morale in the economic and socio-political level using PLS-SEM. The authors raised the question "How will tax enforcement and trust in government moderated by firm demographics affect tax morale of firms in the Philippines?" Using the data from Enterprise Surveys of Philippines (2015), several firms were analyzed to check how tax enforcement as determined by (1) frequency of tax audit, (2) fairness perception thru income levels and complexity of tax laws, (3) trust in government indicated by corruption and trust to justice system, and (4) demographic factors such as firm age, organizational form, ownership origin, firm size, location, size of locality, proximity to capital, and industry shape firms' tax morale or attitude.

Theoretical Frameworks

The accompanying arrangement of theories used factors relating to conscience, communal activity, and exchange of benefits to explain certain behaviors. These sets were used to build up the study's conceptual framework to measure tax morale.

Slippery Slope Framework

Kirchler, Hoelzl, and Wahl (2008) combined the dimensions of power of tax authorities and trust in the taxing authorities upon creating a taxation continuum of tax compliance. The combination of power and trust on different levels will lead to either an antagonistic climate where tax authorities and taxpayers are against each other like cops and robbers or on a synergistic climate that both parties respect and support each other.

Service and Trust Paradigms

This paradigm utilized the perception of equity and exchange between the government and the taxpayers. According to Alm (2012), the state can motivate its constituents to pay taxes through its provision of adequate public goods and services, and demonstration of ethical actions and activities. In return, the taxpayers, through the lenses of morality, social norm, and other behavioral economic factors, assess the level of quality, credibility, and reliability of tax authorities and other government agencies in exchange of the taxes paid.

Procedural Justice Theory

According to Leventhal (1980) and Thibaut and Walker (1975) fair procedures and dealings of the judiciary should be done in addition to exchange equity. Furthermore, Tyler (2010) stated that the legal authorities are at the forefront of promoting compliance with tax laws. As conflicts between tax authorities and taxpayers were numerous in taxation, the fairness of the courts was crucial. If fairness was observed properly, its judgments would be deemed legitimate and acceptable (Smart, 2012).

Deterrence Theory

Allingham and Sandmo (1972) stated that short-sighted individuals would evade taxes if the chances and benefits of doing it are higher. However, once caught cheating, it will be fearful that all previous activities will be penalized and will choose to be compliant in the succeeding periods. Thus, high detection and severe penalty were the deterrent forces of noncompliance (Smart, 2012).

Operational Framework

Utilizing the concept of coercion and persuasion under the slippery slope framework, this study used tax morale as a dependent construct, and tax enforcement and trust in government as independent constructs. Tax morale represented firms' attitude and perception towards tax rates and the administration of taxation. Although firms cannot think for itself and the perceptions are from the individuals leading it, the factors affecting the individual's or group of individuals' tax morale will flow to the firm (Alm & McClellan, 2012).

On the other hand, tax enforcement as the economic indicator of tax morale (Lillemets, 2010) was the imposition of taxation with deterrence, fairness, and complexity. Using the deterrence theory, this will be determined by the frequency of tax audit, fairness perception through the level of income, and complexity of tax regulations. Lastly, trust in government was how the taxpayers view the acceptability and legitimacy of the actions of the government. Applying the service and trust paradigm and procedural justice theory, it will be measured through the perception of corruption and trust in the legal system.

In addition, firm demographics were used as moderator variables. This was to identify if there

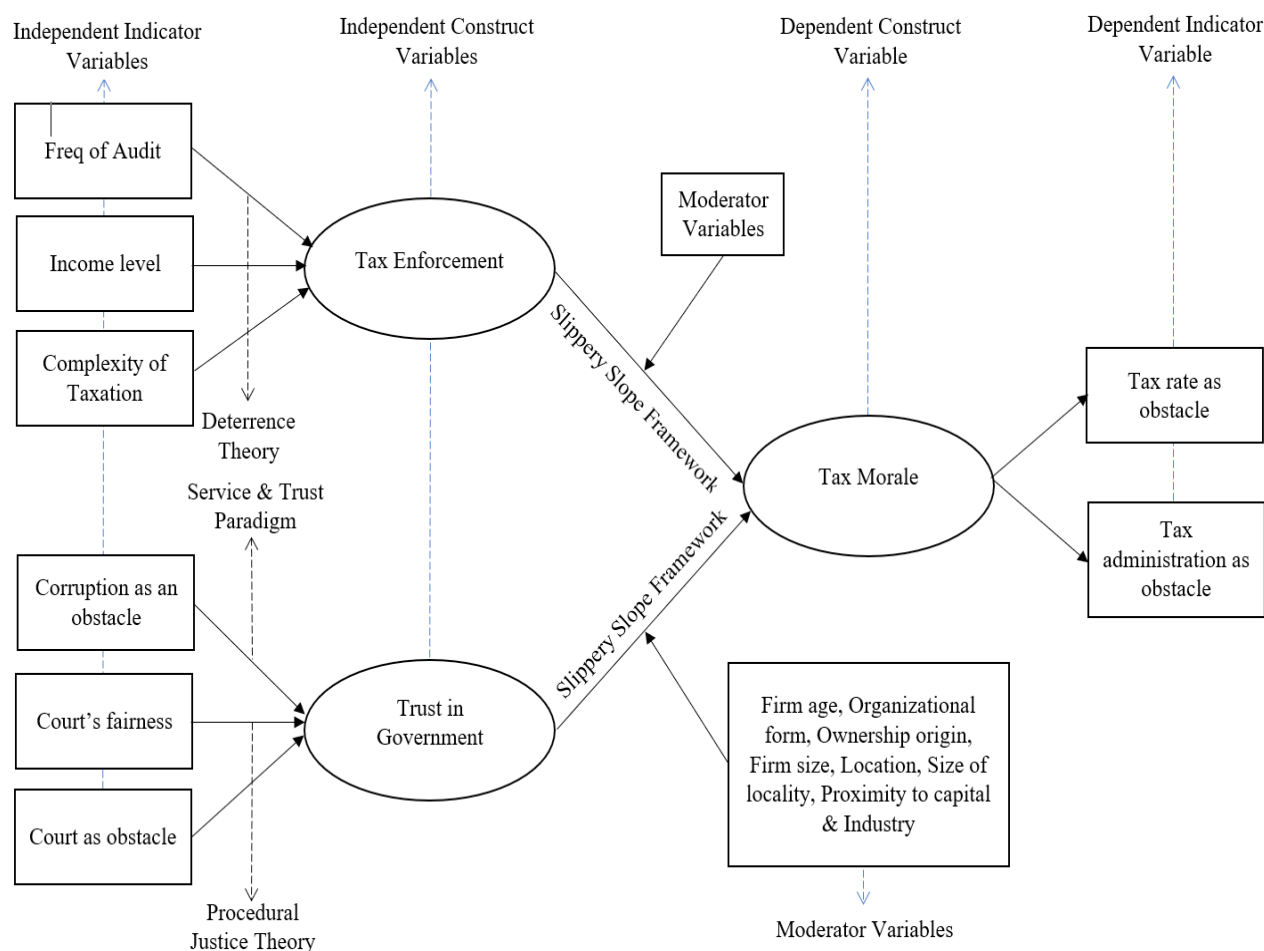


Figure 1. Conceptual framework for firm's tax morale.

are interactions of the demographic variables on the relationship of tax enforcement and trust in government to tax morale. It included firm age, organizational form, ownership origin, firm size, location, size of locality, proximity to the capital, and industry.

Tax Morale and Tax Compliance

The tax compliance was driven by these two ideas; economic incentives and varying motivations (van Raaij, 2016). The first concept was the traditional economic motivation where taxes were viewed as a lost income or burden. Taxpayers followed the economics-of-crime model to maximize the utility of paying taxes and avoid detection consequences from the government (Alm et al., 2012). In other words, the relationship of the government and the taxpayers can be likened to cops and robbers (Kirchler et al., 2008) where tax compliance was related to the chances of

being caught evading and the severity of fines. Thus, the latter primarily opt to declare a portion of income to reduce the amount of taxes to pay unless discovered by tax authorities and suffer penalties (Allingham & Sandmo, 1972; Alm, 2012).

Though reasonable, the economic motivation was inconsistent in predicting the outcome of tax compliance as taxpayers pay even beyond the scope of detection (Torgler et al., 2008) and expected utility (Alm & McClellan, 2012). On the contrary, tax collection strategies through coercion and intimidation increased the unwillingness to pay taxes (Lillemets, 2010). The inconsistency and adverse impact of the economic indicator to predict tax compliance lead to the discovery that taxpayers were motivated by some other reasons. Psychologically speaking, people behaved differently towards certain act based on its degree of evaluation or appraisal of beliefs, whether positive or negative (Ajzen & Fishbein, 2005).

Aside from considering deterrence and tax rates, factors such as moral rules and sentiments, perception of fairness, and the relationship between taxpayer and government could be included (Alm et al., 2012; Torgler, 2003). With this, a behavioral approach to explain tax compliance was applied. Later on, this appraisal was termed taxpayers' morale or attitude and attributed as the significant drive in paying taxes (Alm & McClellan, 2012; Filippin et al., 2013; Torgler, 2003; Torgler et al., 2008).

Tax morale has several descriptions in the literature. Alm and Torgler (2006) and van Raaij (2016) described it as the individual's attitude on paying taxes considering moral principles and values. Also, Frey and Feld (2002) argued that the taxpayers' willingness to pay taxes is based on how the government treats them. Furthermore, Torgler et al. (2008) related that tax morale as a moral cost of illegal behavior reduces tax evasion. It can develop to a strong sense of duty in paying taxes irrespective of any imposed legal rule (Mitrakos, Bitzenis, Kontakos, & Makedos, 2014). Although tax morale was not directly observable, it represented a "multidimensional concept" (Sá, Martins, & Gomes, 2015) and has been linked to intrinsic motivation, taxpayer ethics, social norms, perceptions of power and trust, different forms of compliance, and deterrence motives (Alm & McClellan, 2012). Alm and Torgler (2006) argued that it could be influenced by factors such as perceptions of fairness, trust in the government institutions, fiscal exchange between taxpayers, and government and individual characteristics.

Tax Enforcement on Tax Morale

The uncertainty of a tax audit may help explain the observed high compliance rate despite low enforcement level (Cummings, Martinez-Vazquez, McKee, & Torgler, 2006) and influence tax morale. Audits may be based on previous information such as the amount of income taxes evaded or avoided, or the changes in the reported net income compared to projections (Torgler, 2003) or entirely random. Although the probability of being caught and the amount of fines may turn out to be insignificant to explain tax evasion (Frey & Feld, 2002), its deterring value cannot be omitted. Taxpayers have the tendency to overestimate the chances of inspection (Cummings et al., 2006), instilling a fearful attitude against tax evasion. This fear for tax audit may then be the other influence

for developing a positive tax attitude (Frey & Feld, 2002). Using individual samples, this fear of detection and its high penalty magnitudes further increases tax compliance (Benk, Cakmak, & Budak, 2011; Filippin et al., 2013) Ajzen (1991). Furthermore, when tax administrators allocate more resources in audit and inspection, enforcement becomes a priority, and it will be felt by the taxpayer. These frequent visits will cause subjects to be on guard on their tax compliance decisions.

A fair tax system motivates tax compliance by positively influencing tax morale (Cyan, Koumpias, & Martinez-Vazquez, 2016; Torgler et al., 2008). Also, income can be a valid measure to perceive fairness in taxation (McKerchar, Bloomquist, & Pope, 2013). As income increases, they will be subjected to higher tax rates, especially in a progressive tax system (Alm & McClellan, 2012). Furthermore, Smart (2012) stated that a high-income level warrants visibility for auditing and provides an obstruction to any intention for noncompliance. These tendencies will provide the government with more revenue (Alm & McClellan, 2012).

On the other hand, Bilgin (2014) found that respondents with a higher level of income have lower tax morale. The resulting decrease in tax morale can be attributed to the burden perceived by the taxpayer in relation to the tax system (Torgler et al., 2008). Intriguingly, a loss of income will also lead to a reduction of tax morale. This could be seen in the study conducted by Mitrakos et al. (2014) during Greece's financial crisis where the prevalence of lower standards of living and increased utilization of debt, indicating a reduced realization of income, led to increased tax avoidance and tax-evading transactions.

The complexity of taxation may result in imperfect enforcement (Torgler et al., 2008). The more complex the tax law or system is, the costlier the compliance will be for the taxpayers since more time will be spent in studying it or money in hiring experts to file appropriate tax forms. Same can be said for the increased cost by tax administrators in the tax audit. The complexity will lead to difficulty in ascertaining tax noncompliance because unintentional errors will be mixed with intentional evading. With all these inconveniences, the taxpayer will be prone to frustration and may negatively affect tax morale.

Combining frequency of tax audit, fairness perception through the level of income, and complexity

of tax regulations as indicators of tax enforcement, this study hypothesizes that:

Ha₁: Tax enforcement has a significant impact on tax morale.

Trust in Government on Tax Morale

Another popular factor affecting tax morale is trust in government. It can be said that the relationship between the government and taxpayers can be likened to a psychological contract bound by trust (Torgler et al., 2008) as the former provides public goods and services and the latter pays for it (Jahnke, 2015). Taxpayers evaluate its payment of taxes through vertical reciprocity and equity (Jahnke, 2015), and how they were treated by the government (Lillemets, 2010). As the government acts trustworthily, a taxpayer's willingness to pay taxes will increase (Daude, Gutiérrez, & Melguizo, 2013; Sá et al., 2015). This confidence also increases if taxpayers approved the government's tax policies and its related decisions (Bilgin, 2014).

The quality and actions of a political institution affect the willingness of the taxpayer to comply with taxes (Cummings et al., 2006). If the taxpayer perceives that the public officials are trustworthy, they might be more compliant in paying taxes; if the latter is corrupt, then the former will be demotivated to pay taxes (Mitrakos et al., 2014). The proliferation of corruption showed signs that collected taxes were not used appropriately (Cyan et al., 2016), thus decreases tax morale for taxpayers. In the study conducted by Alm, Martinez-Vazquez, and McClellan (2016), they found that corruption was the significant reason firms cheat on tax payment, and tax evasion also happened to promote corrupt behaviors. Furthermore, they stated that the action of a corrupt tax official who asked bribes explains the reduced 4%–10% reduction of reported sales for tax purposes, offsetting the reduced tax evasion brought by higher audit rates and penalty. Similarly, the study conducted by Jahnke (2017) using micro-level data from African countries, stated that petty corruption directly reduces tax morale and decreases trust in tax authorities. As a result, a corrupt tax official will not just lower tax compliance but also reduce tax collections due to the state.

Other actions of the state can also affect taxpayers' attitude, perception of reciprocity, and commitment to the tax system. In the study conducted by Alm

and Torgler (2006), they used trust in legal system and trust in parliament as trust variables analyzing the relationship of the government and citizens and found that both have a significant positive effect on tax morale. It was supported by the succeeding studies of Alm and McClellan (2012) and Bilgin (2014) wherein functional and a well-governed judiciary associated with trusting individuals develop high tax morale.

Together with corruption and trust in the legal system as indicators for trust in government, this study hypothesized that:

Ha₂: The trust in government has a significant impact on tax morale.

Socio-Demographic Influences on Tax Morale

Human beings, as social creatures, shape their attitude through society and other's attitude and behavior, so with their own characteristics (Lillemets, 2010). In consideration of tax morale as a multi-disciplinary field, evaluating socio-demographic influences such as age, status, locality, and social and cultural norms are important. Among the socio-demographic variables, elderly age has been found the most consistent and significant indicator of tax morale among individuals. Lillemets (2010) stated that the more advanced the age of the taxpayers, the more willing they will be in paying taxes. This claim was based on older people's decrease in activity, wide experience, good material security, and fear of punishments for tax evasion. It is also supported that tax morale is higher for those of advanced age (Bilgin, 2014; Filippin et al., 2013; Lubian & Zarri, 2011).

Also, firm sizes may affect the perception as taxes being an obstacle in doing business. As large and small firms faced the same tax problems, the latter may feel more burdened than the former based on the difference in resources. The opposite may also happen as larger entities encountered more complications in tax procedures than the smaller one (Alm & McClellan, 2012). Other than firm size, Filippin et al. (2013) used population size as a proxy for an anti-social behavior because relationships in small communities are more intertwined and negatively correlated with tax morale. This is driven by the sense of belongingness of an individual in a community, which may change as the community size increases. The closer the relationship of the taxpayers in the locality, the more it will be affected if caught cheating in taxes. Thus, as the

population of a certain place increases, tax morale will decrease (Lubian & Zarri, 2011). On the contrary, Cyan et al. (2016), on their study conducted in Pakistan using individuals, found out that metropolitan areas with large population have significantly high tax morale. It was due to the reason that these areas are highly industrialized and there is a high availability of government seats.

On the other hand, in the study conducted by Alm and Torgler (2006) using data set for WVS, they found that cultural differences between countries affect the level of tax morale. Country origin of a taxpayer has been utilized as a proxy for local norms. A taxpayer's practices in the current place are influenced by the norms of the place where it originated. In the study conducted by McKerchar et al. (2013) for individuals, a proxy of *US Citizen* or not was utilized but was found insignificant. Moreover, Alm and McClellan (2012) stated that foreign firms have higher tax morale. Although they further claimed that foreign firms might have more resources to deal with tax complications or may be subjected to different tax regulations as indicated in any reciprocity law, it may also support the claim for the influences of norms.

Based on what was mentioned above, the study offers the following hypotheses:

Ha₃: The demographic variables such as firm age, organizational form, ownership origin, firm size, location, size of locality, proximity to the capital, and industry have a significant impact on tax morale.

Ha₄: The demographic variables such as firm age, organizational form, ownership origin, firm size, location, size of locality, proximity to the capital, and industry do moderate the effect of tax enforcement on tax morale.

Ha₅: The demographic variables such as firm age, organizational form, ownership origin, firm size, location, size of locality, proximity to the capital, and industry do moderate the effect of trust in government on tax morale.

Methodology

Causal modeling was utilized in this study to analyze how tax morale was influenced by tax enforcement, trust in government, and socio-demographic indicators. Partial least squares (PLS) of the structural equation

model (SEM) was used to establish causality. Table 1 presents the list of variables and its descriptions used in the study.

The data sample used in the study was taken from the Enterprise Surveys of Philippines (2015). In this survey, firms' responses were considered reliable and accurate as there are a number of researches in tax morale that utilized this (Alm et al., 2016; Alm & McClellan, 2012; Williams, 2015; Yucedogru, 2016). With this, we believe that the sample taken was appropriate. The data was composed of 1,335 firms evaluated during 2015. To use PLS-SEM, 10 participants for every free parameter estimated is generally agreed-on (Schreiber, Nora, Stage, Barlow, & King, 2006).

The sample data was subjected to the screening process to identify missing values and the possibility for outliers. Four hundred seventy-one firms were removed after the screening process due to missing values in the significant indicator variables such as tax administration as an obstacle, corruption as an obstacle, and income level. Consequently, these firms were dropped immediately because we are not confident in these firms' ability to effectively estimate their missing values, and the number to be estimated was significant. The remaining 864 firms served as the data sample and were found sufficient to predict the tax morale of firms.

Findings, Analysis, and Implications

Descriptive Statistics

In Figure 2, firms were categorized based on its organizational form, the origin of ownership, firm size, the region it is located, size of the locality where it belongs, its proximity to the capital of the region, and its industry. Based on organizational form, most firms in the observation were composed of corporations, especially the non-listed ones with 60.53% overall and the partnership firms with the least of only 3.36%. On ownership origin, most firms were owned by the citizens (84.95%), whereas foreign firms composed only 15.05% from the whole. As to the firm sizes, the distribution did not differ significantly as any size captured about one-third of the sample. Although firm size can be classified using either the number of employees or the number of its assets, the use of the former was more popular in the Philippines (Aldaba, 2012).

Table 1. *List of Variables and Its Descriptions*

Variable Code	Variable Name	Variable Description
Dependent Latent Variable (DLV)		
Tax morale	Tax morale	Represents the attitude of firms towards taxation based on the tax rates and administration
Dependent Indicator Variable (DIV)		
TRates_obs	Tax rates	Perception of how firms viewed tax rates as an obstacle in doing business (a categorical variable with five options from very severe obstacle to no obstacle)
TAdmin_obs	Tax administration	Perception of how firms viewed tax administration as an obstacle in doing business (a categorical variable with five options from very severe obstacle to no obstacle)
Independent Latent Variables (ILV)		
Tax enforce	Tax enforcement	Government's imposition of taxation with deterrence, fairness, and complexity
Trust_gov	Trust in government	Demonstrates firms' perception of the appropriateness and legitimacy of the government's actions
Independent Indicator Variable (ILV)		
Freq_audit (indicates Tax enforce)	Frequency of tax audit and inspection	Number of times the firm was subjected to visit by tax authorities
Inco_lvl (indicates Tax enforce)	Fairness perception thru level of income	Natural logarithm of the sales reported in the previous years' tax period
Complex_tax (indicates Tax enforce)	Complexity of taxation	Percentage of time spent in studying tax laws and regulations
Court_fair (indicates Trust_gov)	Courts' fairness	Perception of how firms view laws that are deemed consistent, fair, impartial, and uncorrupted (a categorical variable with choices from strongly disagree to strongly agree)
Court_obs (indicates Trust_gov)	Courts administration	Perception of how firms viewed courts as an obstacle in doing business (a categorical variable with five options from very severe obstacle to no obstacle)
Corrup_obs (indicates Trust_gov)	Corruption	Perception of how firms viewed courts as an obstacle in doing business (a categorical variable with five options from very severe obstacle to no obstacle)
Moderating Variables		
Firm_age	Firm age	A variable to capture the firm's age
Org_form	Organizational form	A dummy variable to capture the organization's set up of ownership
Orig_own	Origin of ownership	A dummy variable which takes a value of 0 if domestic and 1 if foreign
Size	Size of firm	A dummy variable to capture the firm's size based on the number of employees
Location_reg	Location of firm	A dummy variable to capture the firm's location
Size_local	Size of locality	A dummy variable to capture the size of the locality in terms of population
Prox_capital	Proximity to capital	A dummy variable which takes a value of 0 if the firm is in the capital, otherwise is 1
Indu	Industry	A dummy variable to capture industry effect

On the location, most firms in the observation were from the National Capital Region, whereas 43.40% came from the indicated regions. Also, most of the firms (53.7%) were found on a locality with 250,000 to 1,000,000 population. On the other hand, 83.22% of firms were not within the capital city of the region. On the industry classification, many of the firms belonged to manufacturing business (79.98%), followed by retail businesses (10.07%), and lastly service-concerned businesses (9.95%).

Table 2 presents the summary result of the descriptive statistics for the indicator and remaining variables. On average, the firms' treatment of tax rates and tax administration as an obstacle to business could be 2.222 and 2.034, respectively, in a 5-point Likert scale. Generally, the firms' attitude towards these two aspects of taxation is ultimately the same. As to the indicators of tax enforcement, the average frequency of audit that firms experience is 1.017, exposing that they experience a visit from the Bureau of Internal Revenue at least once a year. Also, for the complexity

of taxation, senior management of firms spent an average of 7% of their time in a week on dealing with requirements imposed by government regulations. Lastly, for the income level, firms in the sample did have an average sales level in a year of P1.25 billion (the equivalent of the natural log value 7.670).

For the indicators of trust in government, the average perception of how firms view courts as fair, impartial, and uncorrupted was found at 2.433 on a 4-point Likert scale. This middle-point level assessment of fairness was strengthened by the low average perception of firms viewing courts as an obstacle to doing business valued at 1.622 on a 5-point Likert scale. In addition to the previous two indicators, corruption was perceived as an obstacle in doing business which has an average value of 2.433 on a 5-point Likert scale.

Formative Measurement Model Results

Formative constructs were deemed to be the result of the combined explanation of all identified indicators (Haenlein & Kaplan, 2004) this technique has been

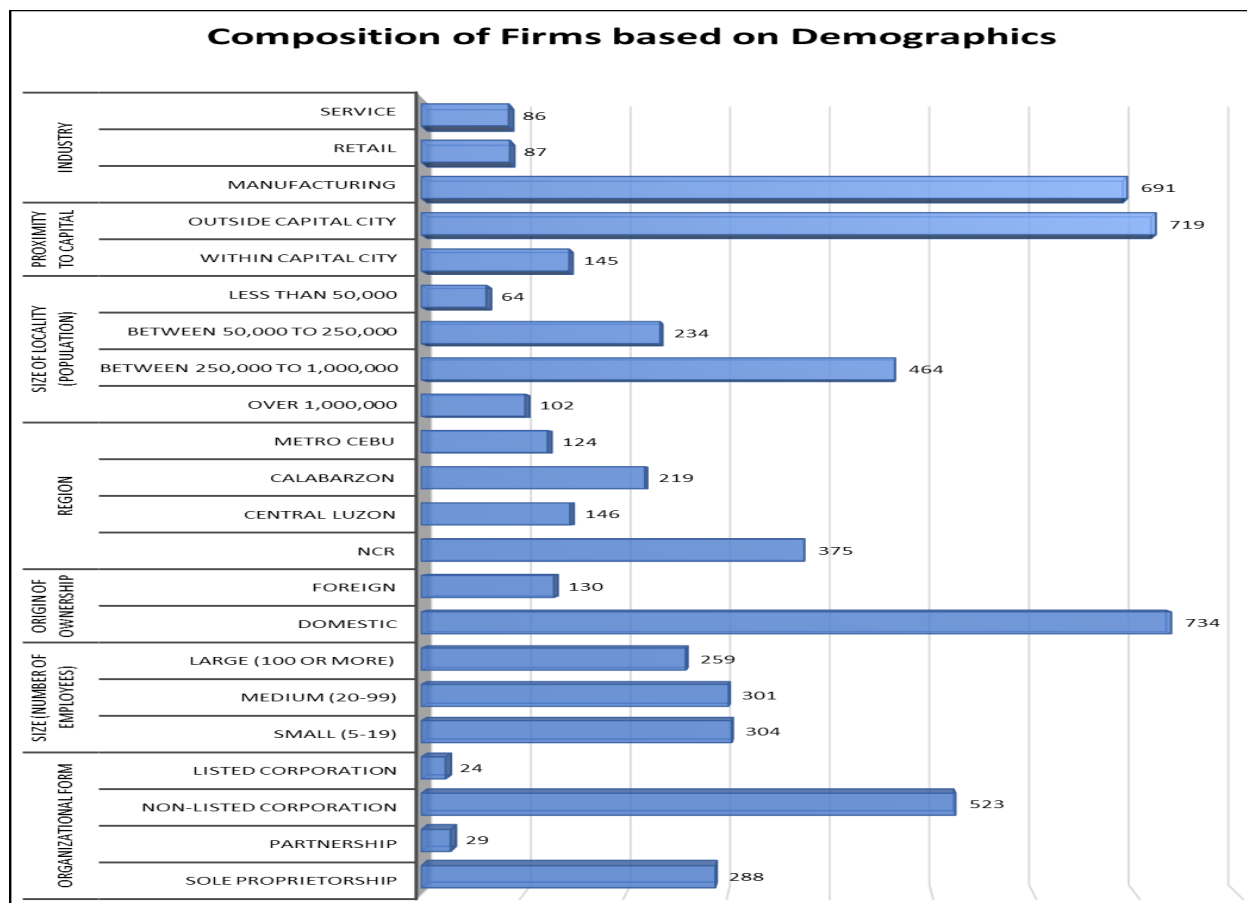


Figure 2. Firm compositions based on demography.

Table 2. *Descriptive Statistics of Non-Dummy Variables*

Construct	Variable	Mean	Std. Dev	Min	Max
<i>Tax Morale</i>	TRates_obs	2.222	1.313	1	5
	Tadmin_obs	2.034	1.243	1	5
<i>Tax Enforcement</i>	Freq_aud	1.017	1.208	0	20
	Inco_lvl	7.670	1.020	5	11.405
	Complex_tax	7.134	16.938	0	100
<i>Trust in Government</i>	Court_fair	2.433	0.928	1	4
	Courts_obs	1.662	1.055	1	5
	Corrup_obs	2.253	1.413	1	5
	Firm_age	1.241	0.304	0	2.207

received with considerable interest among empirical researchers. However, the predominance of LISREL, certainly the most well-known tool to perform this kind of analysis, has led to the fact that not all researchers are aware of alternative techniques for SEM, such as partial least squares (PLS). Unlike the reflective model, formative indicators were expected to have a different level and sign of correlation as compared to one another, resulting in a lack of internal consistency (Yucedogru, 2016). Thus, to do the analysis, the focus was on identifying the extent that an indicator can explain the construct. In SEM, this explanatory power is captured by the indicator's outer weights. According to Sarstedt, Ringle, and Hair, (2017), identifying a good formative indicator has the following rules: (1) the weight is statistically significant; (2) if not statistically significant, the indicator can still be used if outer loading has a value of 0.50 or higher and supported by a theory; and (3) if both nonsignificant and loading of below 0.50, the indicator can be removed from

the model. Although removable, the exclusion of an indicator must be made after careful consideration or is treated as an exception. Other than evaluating the outer weights, an indicator must have a low risk of collinearity with a VIF value of 5.00 or less (Sarstedt et al., 2017).

For the study, the result on the items and construct analysis for tax enforcement and trust in government is presented in Table 3. It can be observed that all indicators of trust passed the assessment on the first level because all items are statistically significant. Other than the acceptable outer weights, the *Court_fair*, *Court_obs*, and *Corrup_obs* have lesser collinearity risk because its VIF values ranged from 1.042 and 1.509, which are clearly less than the demarcation value of 5.000.

This result shows that reduced perception of corruption and trust in the legal system has a positive relationship with trust in government. Increases in the perceptions that corruption in the government and

Table 3. *Formative Indicators Loadings and Weights with the Corresponding Significant and Collinearity Levels*

Constructs and Items	Loadings (Weights)	VIF
<i>Tax Enforcement</i>		
Freq_audit	0.569 (0.730)	1.040
Inco_lvl	0.696 (-0.833)	1.055
Complex_tax	0.144 (0.041)	1.015
<i>Trust in Government</i>		
Court_fair	0.303 (0.109)	1.042
Court_obs	0.841 (0.457)	1.505
Corrup_obs	0.917 (0.635)	1.509

courts are not an obstacle in doing business, the level of trust in government also increases. Furthermore, these indicators suit well for the model as it was able to provide a significant explanation of the construct. The established relationship between perceived corruption and trust in government strongly suggests the strength of service and trust paradigms. If the government is more responsible and transparent in its actions to deliver enough benefits as what the taxpayers purport to receive in relation to its taxes paid, it can expect the latter will treat the former trustworthily (Alm, 2012; Devos, 2014). Same is true for the trust in the legal system because it was able to effectively portray the procedural justice theory by Leventhal (1980) and Thibaut and Walker, (1975). As the processes in the courts are viewed with fairness, neutrality, and equal representation, taxpayers will be confident that any judgments related to tax cases will be handled well.

On the other hand, indicators of tax enforcement did not pass the first rule, as all are not statistically significant. Applying the second rule, *Freq_audit* and *Inco_lvl* indicators are passable because both of their outer loading values are higher than 0.50. It should be noted that the variable representing fairness perception has a higher weight, but it has a negative value compared to audit frequency. To assess, the relevance of an indicator is higher when its absolute value is closer to 1 and the positive or negative sign signifies the direction of its relationship with the construct. Lastly, by the initial conditions of the third rule, the *Complex_tax* should be removed. However, invoking the exception rule, this indicator variable will still be retained because the complexity of taxation is a tested variable under the deterrence theory. With regards to collinearity issues, these indicators also have lesser risk as VIF values range only from 1.015 to 1.055.

The above result shows that tax enforcement is positively indicated by the frequency of tax audit, negatively indicated by the fairness perception, and negligible effect from the complexity of taxation. The effects of the tax audit coincide with the notion of various literature that fear of being discovered and be severely penalized highly deters tax evasion and force taxpayers to comply with tax payments (Benk et al., 2011; Cummings et al., 2006; Frey & Feld, 2002; Torgler, 2003).

On the other hand, the opposite effect of fairness perception to tax enforcement did coincide with the claims that increases in the level of income represent

more burden to tax compliance as firms will be forced to pay more (Bilgin, 2014; Torgler et al., 2008) rather than viewing that it is fair for taxpayers with higher income to be subjected to the higher amount of taxes (Alm & McClellan, 2012; Cyan et al., 2016; McKerchar et al., 2013). This also holds true as fairness perception reduces when tax enforcement increases on a certain level of income. Lastly, the negligible effect of the complexity of taxation to tax enforcement is in contrast to the view of Torgler et al. (2008) that complexity leads to imperfect enforcement as it is costly. Although this indicator was retained due to the application of deterrence theory and removing it may affect how the construct was formed, its positive relationship with tax enforcement still portrays that the increased number of hours spent to deal with tax regulations will result to the taxpayer's more knowledge in enforcing tax compliance.

Reflective Measurement Model Result

An acceptable threshold for a reflective indicator to be reliable is to have an outer loading value of 0.707 or higher (Hair, J., Black, W., Babin, B., & Anderson, R., 2010; Smart, 2012). Based on the results in Table 4, *TRates_obs* and *TAdmin_obs* are valid indicators of tax morale because its values are 0.931 and 0.929, respectively. Also, the construct reliability has been successfully established in the study because the amount of Chronbach's alpha is higher than 0.70. Similarly, the convergent validity for the tax construct is set because its AVE has a value of 0.864, which is higher than the minimum value of 0.50. An AVE of at least 0.50 is already considered acceptable, which means that at least 50% or more of the indicator variance were considered compared to the variance of measurement error (Hair et al., 2010; Smart, 2012).

Lastly, discriminant validity can be assessed by comparing the square root of the AVE values of each construct with the correlations of each constructs using Fornell-Larcker criterion (FLC) test and examining outer loadings and cross loadings. As AVE of the formative constructs cannot be determined, only the FLC result of tax morale construct is presented in Table 4. Presented in Table 5 are the outer model loadings and cross loadings result from all measurement models. The bold figures represent the outer loadings of each indicator to its corresponding construct, whereas the remaining values are the cross-loadings. Cross-loadings are the loadings of an indicator to another

Table 4. *Reflective Indicators' Loadings With the Corresponding Significant and Collinearity Levels*

Constructs and Items	Loadings (Weights)	T-stat	Sig. Level	VIF
Tax Morale	CA = 0.843	AVE = 0.864	FLC = 0.930	
TRates_obs	0.931 (0.541)	51.356	0.001*	2.133
TAdmin_obs	0.929 (0.534)	56.184	0.001*	2.133

Note: CA – Chronbach's Alpha; rho_A – Dillon-Goldsteins' rho; FLC - Fornell-Larcker Criterion; *Significance level of 0.05

Table 5. *Outer Model Loadings and Cross Loadings*

Indicators	Tax Enforce	Trust Gov	Tax Morale
Complex_tax	0.144	0.025	0.019
Freq_aud	0.569	0.041	0.073
Inco_lvl	-0.696	-0.051	-0.090
Corrup_obs	0.062	0.917	0.619
Court_fair	0.084	0.303	0.205
Courts_obs	0.054	0.841	0.568
TRates_obs	0.095	0.637	0.931
Tadmin_obs	0.145	0.618	0.929

construct. To pass discriminant validity, the absolute value of an indicator's loadings to its corresponding construct should be higher than its loadings to another construct, and the loadings' absolute value of the construct's indicators should all be higher than loadings of another construct's indicators. Upon checking, the resulting loadings and cross-loadings passed discriminant validity criterion except for *Complex_tax*.

Upon considering both results from formative and reflective measurement models, it shows that the outer or measurement models of tax enforcement, trust in government, and tax morale are adequate and can proceed to further assess the inner or structural model.

Structural Model Assessment

It is vital in SEM that the model or conceptual framework has sufficient capacity to predict, explain the relationship between its constructs, and can be supported empirically (Yucedogru, 2016). Analyzing the relationships between constructs can be done by examining the value of path coefficient and its corresponding level of significance. A path coefficient usually falls between -1 and +1 where the closer it is to either of the two digits it represents the stronger the negative or positive relationships between independent and dependent variables (Sarstedt et al., 2017). On

the other hand, the significance of the path coefficient shows how the independent variable significantly explains the dependent variable. The path coefficients and its level of significance can be derived primarily by bootstrapping the data.

Overall, the study has 10 direct paths and 16 moderator paths to interpret. The first group includes the tax enforcement and trust in government paths, which is the primary concern of the study and the remaining paths are from the various demographic characteristics. These paths were analyzed using the SmartPLS software (Ringle, Wende, & Becker, 2015). The result includes the path coefficient, sample mean, standard deviation, t-statistics, and significance levels which are all presented in Table 6.

Despite quite many paths present either a low coefficient value or an insignificant relationship, this study indicated good values of model fit, as shown in Table 7. The goodness-of-fit indices include the standardized root mean square residuals (SRMR), normal fit index (NFI), chi-square, and RMS theta. The SRMR allows the assessment of the average magnitude of the discrepancies between observed and expected correlations, and it has an ideal result if its value is below 0.08. Also, chi-square and NFI are used together because chi-square is the basis of NFI, and the resulting

Table 6. *Structural Equation Modeling Results for Tax Enforcement, Trust in Government, Demographic Variables, and Tax Morale*

Path	Coef	Sample Mean	Std. Dev.	T-statistics
Direct Paths				
Tax Enforce -> Tax Morale	0.069	0.015	0.076	0.904
Trust Gov -> Tax Morale	0.625	0.629	0.024	26.065*
Firm_age -> Tax Morale	0.000	-0.001	0.027	0.012
Org_Form -> Tax Morale	-0.068	-0.067	0.030	2.282*
Orig_own -> Tax Morale	0.004	0.003	0.030	0.126
Size -> Tax Morale	0.002	0.001	0.028	0.065
Location_reg -> Tax Morale	-0.119	-0.119	0.031	3.899*
Size_local -> Tax Morale	0.044	0.044	0.025	1.756
Prox_capital -> Tax Morale	-0.015	-0.015	0.030	0.509
Indu -> Tax Morale	-0.033	-0.032	0.027	1.207
Moderators: Tax Enforcement -> Tax Morale				
Firm_age	0.002	0.001	0.026	0.078
Org_Form	0.016	0.003	0.031	0.517
Orig_own	0.008	0.003	0.025	0.332
Size	-0.021	-0.017	0.036	0.586
Location_reg	-0.037	0.003	0.044	0.851
Size_local	0.024	-0.003	0.034	0.710
Prox_capital	0.026	-0.003	0.044	0.598
Indu	0.022	-0.008	0.033	0.657
Moderators: Trust in Government -> Tax Morale				
Firm_age	0.002	0.001	0.026	0.078
Org_Form	-0.052	-0.054	0.027	1.926
Orig_own	0.003	0.004	0.031	0.105
Size	0.036	0.037	0.028	1.274
Location_reg	0.043	0.042	0.034	1.256
Size_local	0.024	0.028	0.028	0.863
Prox_capital	-0.044	-0.045	0.027	1.669
Indu	0.015	0.014	0.025	0.609

Note: *Significance level at 0.05

Table 7. *Measures of Model Fit Summary*

SRMR	0.055
Chi-square	622.184
NFI	0.780

Note: SRMR – Standardized Root Mean Square; NFI – Normed Fit Index

value will fall between 0 and 1. The closer the NFI to 1, the more the model is considered fit. With regards to the structural model of the study, its SRMS value is 0.055 and NFI equal to 0.780, which shows that the proposed model is fit and acceptable.

The structural model relationships that are tested through PLS-SEM and the related decisions are presented in Table 8. Among the five hypotheses, was fully accepted, which highlights the relationship between trust in government and tax morale. has partial confirmation because out of the eight demographic variables, two turns out to have a significant result, which includes organizational form and region of location. The remaining parts of this section further explain the relationships among indicators and constructs.

With all these factors considered, tax enforcement shows an insignificant relationship to tax morale. This means that taxpayers' attitude to pay taxes is partly driven by the level of tax enforcement but not a high motivating factor. Although it is a common strategy in the government to strengthen tax enforcement measures for tax compliance to increase, this study shows that this action may not provide a successful result. A worse outcome to happen is a decrease in motivation to pay as affected by coercion and intimidation that is leading to more unwillingness and resorting to tax evasion (Lillemets, 2010). Thus, that tax enforcement has a significant impact on

morale is rejected. This just shows that taxpayers are still willing to pay taxes even beyond the scope of detection and increased complexity, as motivated by other intrinsic factors (Alm & McClellan, 2012; Torgler et al., 2008). Furthermore, Yucedogru (2016) stated that taxpayers are inherently willing to pay taxes; thus, a change in strategy from using monitoring and penalties as a "hard stick" to force compliance to the use of attractive offers to encourage them. This is when the results of tax morale studies are very applicable that considering these factors, which shape tax attitudes, may easily improve tax compliance behavior.

On the other hand, the study shows that the construct of trust in government has a high relevance and positive impact on tax morale, confirming . As the perception towards the trustworthiness of the government increases, tax morale also follows. It strongly supports the view of Torgler et al. (2008) that the relationship between the government and firms can be likened to a psychological contract bound by trust. Trust in government can be earned from the way it treated its taxpayers (Daude et al., 2013; Jahnke, 2015; Lillemets, 2010; Sá et al., 2015) and if taxpayers approved its implemented policies and related decisions (Bilgin, 2014). Also, it challenges the government to always have a good image from the public, especially in maintaining transparency. The more the government acts trustworthily, firms will not

Table 8. *Summary of Hypotheses and Decisions*

	Hypotheses	p - values	Decision
Ha ₁	Tax enforcement has a significant impact on tax morale	0.366	Rejected
Ha ₂	Trust in government has a significant impact on tax morale	0.000*	Confirmed
Ha ₃	Demographic variables have a significant impact on tax morale		
	Firm age	0.991	Rejected
	Organizational form	0.023*	Confirmed
	Ownership origin	0.900	Rejected
	Firm size	0.948	Rejected
	Location	0.000*	Confirmed
	Size of locality	0.079	Rejected
	Proximity to capital	0.611	Rejected
	Industry	0.228	Rejected
Ha ₄	Demographic variables do moderate the effect of tax enforcement on tax morale	0.395	Rejected
Ha ₅	Demographic variables do moderate the effect of trust in government on tax morale	0.095	Rejected

Note: *Significance level at 0.05

hesitate to place a high trust rating and will also be motivated to pay taxes.

The last factor applied in the study to explain tax morale are the firm's demographic characteristics. These variables are simultaneously tested for its direct effect to the dependent construct of tax morale and its moderation effect on the independent constructs of tax enforcement and trust in government to tax morale. The result of the direct effect shows that only organizational form and location have a significant impact on tax morale. It means that simple kind of firms like single proprietorship has lower tax morale compared to corporations. This can be attributed to the resources available to the firm as a corporation has a lot to consume, in terms of money, time, and expertise, compared to single proprietorship (Alm & McClellan, 2012). In terms of decision-making and delegation of duties, the burden of taxation is carried solely by a single person on a sole proprietor business in contrast to the many owners of a corporation. As such, sole proprietors may just hire a third party like a bookkeeper to deal with the computation of income and taxes due to ease this problem. Corporations, on the other hand, usually have separate departments in legal affairs, accounting, and finance that will deal with the intricacies of taxation. With regards to location, firms located farther from Metro Manila has higher tax morale than those in Metro Manila or nearer. This is contrary to the notion of Cyan et al. (2016) that firms located in the metropolitan area have higher significant morale as it is located in the highly industrialized and nearer to where the national positions of the government are located. It could be that these reasons when applied in the Philippines, cause these firms in the central area to be more uncompliant and can always look for a loophole to settle problems in taxation. This nature of the relationship between location and tax morale could also be indirectly analyzed through the population size in a locality. The sense of belongingness of an individual in a small community is higher as their relationship with the others is closer (Filippin et al., 2013) leading to higher tax morale (Lubian & Zarri, 2011). By applying this, firms in Metro Manila may have a lesser sense of belongingness in a largely populated community as evidenced by its low tax morale compared to firms outside Metro Manila.

The original intention of the study is to identify if these demographic characteristics affect the

relationship between the independent constructs of tax enforcement and trust in government and the dependent construct tax morale. However, the result shows that the effect of the exogenous constructs does not differ significantly with the application of moderator variables. Thus, the impact of tax enforcement and trust in government to tax morale will be the same irrespective of the characteristics of a firm.

Conclusion

The study was conducted to provide understanding on what are the effects and how significant are tax enforcement and trust in government in shaping the tax morale. It also aimed to tackle the tax attitude of firms based on their demographic characteristics. The study was able to gather data from 864 firms to represent various businesses in the Philippine setting. It can be considered that the use of PLS-SEM in researching tax morale and focusing on firm-level taxpaying rather than an individual is a new perspective in researching tax morale. Moreover, the strength of the structural model was highlighted as it is capable of measuring the validity and reasonableness of the items used as an indicator.

This research proposed that frequency of tax audit, level of income as fairness perception, and complexity of tax regulation are indicators that measure tax enforcement. After the test on PLS-SEM, only the frequency of tax audit and fairness perception are considered appropriate and have sufficient explanatory level on the concept of tax enforcement. Furthermore, these two qualified measures work against the other. The first measure can easily be understood because as the frequency of tax audit increases, the resulting level of tax enforcement also increases. On the other hand, the second measure utilizes the idea that increased fairness will be seen on low tax enforcement on lower-income firms and high tax enforcement on higher-income firms. Thus, fairness perception reduces when tax enforcement increases on a certain level of income.

The study further suggested that corruption and trust in the legal system are valid measures of trust in government. The results on PLS-SEM show that these indicators are appropriate and have sufficient weights or significance in explaining tax morale. It shows that the more corrupt the officials and untrustworthy the courts are, the firms' distrust in government will also increase. This distrust in government is being affected

heavily by the views on corruption, followed by the untrustworthiness of courts.

Besides tax enforcement and trust in government, it is also proposed that tax attitude of firms can be viewed from both tax rates and tax administration as obstacles in doing business. The result shows that these indicators of tax morale are valid and appropriate, and tax rates and administration are treated almost the same in forming an attitude.

After measuring the validity and appropriateness of the various indicators on the respective concepts of tax enforcement, trust in government, and tax morale, the relationships of the constructs were analyzed subsequently. Only trust in government has a very significant impact on it. If demographic characteristics will be applied as a separate construct to identify its direct relationship with tax morale, organizational form and location came out as significant but had a negative impact. However, when demographics is used as a moderator between tax enforcement and trust in government, the result does not differ significantly. Thus, the effect of tax enforcement and trust in government will not matter irrespective of the firm's characteristics.

Recommendations

To improve tax compliance by raising tax morale, the Philippine government may start making policies that attempt to reach the beliefs and attitudes of firms in finding ways to increase tax compliance. It is not enough just to rely on the classical model of increasing the level of tax monitoring and amount of penalty as the effect is not always desirable. It should increase its focus on reducing the burden of tax administration and improve perception on tax rates. These could be done by (1) easing the process of taxation such as paperless automation and giving more technical assistance; (2) by becoming lenient on computational errors by not exhorting a large penalty if discrepancies arise; and (3) increased information dissemination by making sure that revenue regulations or memorandums will not just be forwarded to BIR district offices but ultimately to the concerned companies.

Furthermore, it is vital that the government and its officials are careful with their actions not to negatively affect the interest of taxpayers. For example, BIR personnel should not be tolerated if they accepted compromises by receiving or asking bribes from the

company in return to turning blind against the latter's evasive activities. Another concern to address is the reduction of actual money spent on government projects as portions of it has gone to the pockets of local officials termed as a standard operating procedure (SOP). No matter how great the policy is if the taxpayers such as firms will not receive its own end benefit on the taxation process, its effect to tax compliance will always be stagnant. For this, the transparency of the government in making its reports on the expenditures is very important. Other than that, prioritizing the public's interest is a viable option such as improvement on health and education system and provide these at a low cost or free of charge. By doing these actions, the perception of social and fiscal exchanges will increase.

Lastly, the government needs to be mindful of a firm's structural organization and location as these things are also significant to shaping morale in taxation. Although in Philippine setting, there is a clear distinction in the computation of income taxes between single proprietor and corporation, it may not be the same with other kinds of taxes such as business and excise taxes or even the remittance of employee's withheld taxes. Moreover, firms in the metropolitan area may need more convincing powers so that its tax morale may level with those outside the metropolitan area. Overall, what matters now is not whether the government can be stricter in imposing tax policies, but rather, on being more sensitive to firms' perception and beliefs on itself and the decisions it implemented. Other than those things mentioned above that were viewed significant based on this research, tax policymakers and tax authorities may consider other behavioral aspects of taxpaying that are vital to improving tax compliance. The decision making within the firm is influenced by their personal values and beliefs, not just the senior management but also other taxpayers.

Although tax morale research can be considered a well-researched topic, it is still a challenge to find the appropriate variable that shape attitude towards taxation and the methodology to do the study. To be specific, the construct for tax enforcement should be improved in terms of finding a better indicator. It is an undeniable fact that in an actual scenario, this measure is still effective and cannot be totally removed for tax compliance. Furthermore, variables for the interaction of firms inside and outside the organization may be developed to capture the effect of socialization. It can

be said that the horizontal interactions of a firm with its environment and others, in addition to its vertical interaction with the government, will further explain how tax attitudes will develop.

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Appendix A – Full Structural Equation Model Result

