



A CONCEPTUAL AND FACTORIAL REVIEW OF THE DETERMINANTS OF INCOME TAX COMPLIANCE

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Abstract

The objective of this paper is to review the factors from a viewpoint of social marketing that control taxpayer compliance. To conduct study, 20 years data from across the globe available between 1984 and 2014 was collected. There were too many findings revealed during the study. First, many of the literature applied varied nature of factors, which in turn make the comparison too difficult across numerous studies. Second, numerous researchers lacked in explaining the choice of independent variable as they have carried out the research in the absence of a theoretical framework. Since the presence of a theoretical context increases understanding of the important variables that affect a scenario, hence this paucity creates the gap in the tax literature and did not provide any significant solution on the key determinants of income tax compliance. Third, collective investigation of the literature displayed that the three key determinants of income tax compliance that can be considered as good predictors were normative, attitudinal and subjective control. Further, the outcomes of the study recommend few policy actions that need to be addressed in future research. First, it is suggested that the future research focuses on to develop theory centered number of appropriate determining factor of tax compliance which can measure precise forecasts. Second, it is recommended to tax policy makers to discontinue from limited practice of the orthodox forced approaches (subjective control variables) usually used to coerce tax compliance. Further, the policy makers are advised to use a controlled method in implementation of tax that can encourage intended compliance through variation of norms and attitudes.

Keywords: *Conceptual, Factorial Review, Determinants, Income Tax Compliance*

There is a general question comes in one's mind, "Why do some people pay taxes imposed upon them while others do not?" This paper looks for the answer of this broad question. More precisely, this study aims at providing a conceptual and factorial review of the determinants of income tax compliance. Although we have a significant literature available on the topic concerned; nevertheless, it seems that till date none of the literature has evaluated the combined appropriateness of the variables deployed in the studies.

In the wider interest of the democracy and the tax system of the country in particular, more and more persuasive methods of tax compliance should be used instead of coercive methods. A more effective way therefore to deal with it is to view it in the context of marketing linked methodologies in a nonprofit background, frequently known as "social marketing." Mainly, social marketing can be considered as a marketing tool to develop social welfare by varying behavior and attitudes in respect to a precise idea or concept and a specific product.

Significance of the study

Research on thoughtful aspects illuminating taxpayer compliance is well-timed and suitable. To decrease over dependency on service, several emerging countries are nowadays re-focusing on taxation. In addition, Keen (2012) in his study emphasized the prominence of collection of tax in emerging countries (see also OECD's Task Force on Tax and Development, 2010). Further, the International Development Committee (2012) suggested that India's aid program must intensify its emphasis on supporting tax governance.

Taxation study is important as we know that for the political, social and economic development of the country, taxation is assumed to be essential. Several past studies recommend that in the economic development strong tax system plays three significant roles: According to Keen (2012) it helps in

generating revenue, According to Cobham (2005) tax system helps in reducing inequality and as per Odd-Helge&Rakner (2009) it encourage good authority. Now we discuss each role briefly.

First, the major and the evident role of taxation is revenue generation. Numerous discrete appeals on the public reward can be acknowledged, all such must eventually be encountered by tax revenues. These comprise short term requisite to sermon prompt worries of human development like urgent medical treatment and outburst of scarcity; and also comprise long term funding of communal infrastructural amenities like schools, hospitals, airports and roads. Natural resources and aid income can substitute imaginary tax income and must ensure that imperative development purposes are reached. Nevertheless, the study by Ross (2001) and Moore (2004) state that disbursement through such sources adds minutely in evolving the institutional volume of the state. In addition, Bulir&Hamann (2007) in their study revealed that tax revenues generated through vigorous domestic reserve deployment are comparatively predictable than tax collected from natural resources, hence governments can develop a strategy with more certainty.

Secondly, revenue generated through tax work as government income which can be allocate as human welfare to decrease extreme poverty. In other strand Cobham (2005) revealed that middle income countries like the Caribbean, due to inequality in income level is more prone to human poverty. This suggests that for tax revenues precedence must be given to comparative measures rather than absolute measures. Finally, we cannot consider tax merely an aid of generating revenue for development and redeployment of income rather it plays a significant role in shaping up institutes and equality through building the government responsible to its taxpayers. The growth of an efficient tax management also encouraged the growth of institutes in other areas of the

communal sector. A fortuitous observation finds that poor governance is frequently associated with the government being free of generating revenue from taxation of businesses and individuals. Study of Odd-Helge&Rakner(2009) revealed that in emerging countries whose income originates largely from natural resources rather than taxation of their citizens are normally characterized by deprived public institutes and bad governance. However, it should be noted that the taxation role in development is debatable. According to Das-Gupta, Lahiri and Mookherjee (1995) and Rooney (2009) a small unnecessary tax (represents weak tax structure and unresponsive governance) might hamper development in more affluent countries as well as in developing economies like India.

Methodology

Scope of the Review

The researcher follows a systematic process to identify the study reviewed. First, to conduct study, 20 years data from across the globe available between 1984 and 2014 was collected. Second, only those studies were qualified finally in the review who met the below criteria: 1) studies who examine the elements of tax compliance or avoidance 2) studies in which dependent variable are applied as tax compliance or avoidance

3) studies that are experiential in nature and the subject data are centered on taxpayers.

The researcher acknowledged 20 such studies meeting the aforementioned condition. Table 1 shows the details of authors with their respective studies along with the year of publication, the theoretical framework or model (if any) applied, the statistical technique used, detail of sample size and finally the country from where the data have been collected. It can be evident from Table 1 that mostly the data collected have been after 2006 and from Europe (2), Asia (6), North America (6), Middle East (1), Africa (3) and rest of the world (2). As the collected data represents the various countries, hence reduces the similarity of the studies. The fact that the outcomes of the studies reviewed can only be related under the presumption that the tax conditions operate in different countries for an individual or the businesses are moreover similar. Despite the fact that the studies reviewed were diverse in nature, evaluation of their conceptualizations and conclusions is theoretically productive for numerous reasons. First, it is valuable to do evaluation of conceptualizations for the problem related to tax for further future research. Second, from the view point of applied tax administration the evaluation of conclusions is seemingly useful.

Table 1 - Tax Compliance / Evasion Studies Reviewed

| | Author(s) | Theory/Model | Year of Publication | Statistical Method | Sample Size | Country of Data Collection |
|----|---|---|---------------------|---|---|----------------------------|
| 1 | Damayanti | "The Theory of Planned Behaviour | 2012 | Regression Analysis | 114 individual taxpayers | Indonesia |
| 2 | Maciejovsky, Schwarzenberger, & Kirchler | None | 2012 | Analysis of Variance ANOVA and (Mann-Whitney test | 253 individual taxpayers and 463 students | UK |
| 3 | Benk, Çakmak, & Budak | The Theory of Planned Behavior | 2011 | Factor Analysis & Multiple regression | 369 individual taxpayers | Turkey |
| 4 | Palil & Mustapha | None | 2011 | Multiple Regressions | 1073 individual taxpayers | Malaysia |
| 5 | Hai & See | The extension of the Theory of Reasoned Action | 2011 | Multiple regressions | 196 individual taxpayers | Malaysia |
| 6 | Bame-Aldred, Cullen, Martin, & Parboteeah | Institutional Anomie Theory | 2011 | Hierarchical Generalized Linear Modeling (HGLM) | 3331 firms | World-wide |
| 7 | Ahangar, Bandpey, & Rokny | None | 2011 | Descriptive Method | 144 Tax Specialists | Iran |
| 8 | Fagbemi Uadiale & Noah | None | 2010 | Descriptive & Inferential statistics | 36 Tax Officers | Nigeria |
| 9 | McGee & Gelman | None | 2009 | Descriptive & Inferential statistics | Over 2000 individual taxpayers | USA |
| 10 | Singh & Mbekomize | None | 2009 | t-test & Independent t- tests | 149 Students | Botswana |
| 11 | McGee & Smith | None | 2007 | Descriptive & Inferential statistics | 638 Students | USA |
| 12 | Trivedi, Shehata, & Mestelman | Economic theory & Theory of Planned Behavior | 2005 | Multiple regressions | 79 students | Canada |
| 13 | Riahi-Belkaoui | None | 2004 | Multiple Regression | 30 countries | World-wide |
| 14 | Das-Gupta, Ghosh & Mookherjee | Das-Gupta and Mookherjee (1998, 2000) Model | 2004 | Multiple regressions | 70 individual tax payers | India |
| 15 | Parka & Hyunb | Allingham & Sandmo (1972) Model | 2003 | Multiple Regression | 15 graduates | Korea |
| 16 | Fjeldstad & Semboja | None | 2001 | Descriptive statistics | 221 individual taxpayers | Tanzania |
| 17 | Hanno & Violette | Theory of Reasoned Action | 1996 | Correlations | 73 students | USA |
| 18 | Alm, Jackson, & Mckee | Allingham and Sandmo (1972) Model | 1992 | Multiple Regression | 15 students | US |
| 19 | Slemrod | Allingham and Sandmo (1972) Model as amended by Yitzhaki (1974) | 1985 | Multiple Regression | 2311 individual taxpayers | USA |
| 20 | Das-Gupta & Mookherjee | None | 1984 | Multiple Regression | 30 individual tax payers" | India |



Table 2 - Variables Used and Association with Tax Compliance

| Variable | “Number of findings which displayed: | | | Totals |
|---|--------------------------------------|----------------------|----------------|------------------|
| | Positive association | Negative association | No association | |
| ATTITUDE | 21 (72%) | 7 (24%) | 1 (3%) | 29 (100%) |
| 1. Summative Attitude | 3 | | | 3 |
| 2. Perception of equity and fairness | 4 | 1 | | 5 |
| 3. Affective priming (Emotions) | | 1 | | 1 |
| 4. Cognitive priming (ease with which to retrieve tax-related info) | 1 | | | 1 |
| 5. Perception of provision of public good | 3 | | 1 | 4 |
| 6. Tax knowledge/tax education | 2 | | | 2 |
| 7. Expected costs of non-compliance | 1 | | | 1 |
| 8. Ethics | 2 | | | 2 |
| 9. Unfair treatment of Citizens | | 3 | | 3 |
| 10. Religious Observance | 1 | | | 1 |
| 11. Freedom of Speech | 1 | | | 1 |
| 12. Freedom of Worship (Tolerance) | 1 | | | 1 |
| 13. Individualism | | 1 | | 1 |
| 14. Achievement orientation | 1 | | | 1 |
| 15. Assertiveness | 1 | | | 1 |
| 16. Perceived tax burden | | 1 | | 1 |
| SUBJECTIVE NORMS | 7 (78%) | 2 (22%) | | 9 (100%) |
| 1. Summative Subjective Norms | 3 | | | 3 |
| 2. Normative expectations | 1 | | | 1 |
| 3. Referral group | | 1 | | 1 |
| 4. High Moral norms | 1 | | | 1 |
| 5. Known number of tax evaders | | 1 | | 1 |
| 6. Unapproved tax preparer influence | 1 | | | 1 |
| 7. Unapproved account preparer influence | 1 | | | 1 |
| PERCEIVED BEHAVIORAL CONTROL | 25 (49%) | 21 (41%) | 5 (10%) | 51 (100%) |
| 1. Summative Perceived Behavioral Control | 2 | | | 2 |
| 2. Legal sanctions (penalties and fines) | 5 | 1 | 1 | 7 |
| 3. Probability of being audited | 5 | 1 | | 6 |
| 4. The role of tax authority | 1 | | | 1 |
| 5. Corrupt Government | | 2 | | 2 |
| 6. Level of Education | 1 | | | 1 |
| 7. Rule of law | 1 | | | 1 |
| 8. Corporate tax burden | | 1 | | 1 |
| 9. Gross National Product (GNP) | | | 1 | 1 |
| 10. Firm size | 1 | | | 1 |
| 11. Individual ownership | | | 1 | 1 |
| 12. Industry: agriculture | | | 1 | 1 |
| 13. Industry: construction | | 1 | | 1 |
| 14. Effective competition laws | 1 | | | 1 |
| 15. Economic freedom | 1 | | | 1 |
| 16. Importance of equity market | 1 | | | 1 |
| 17. Poor working conditions of tax agent | | 1 | | 1 |
| 18. Weakness of tax information system | | 1 | | 1 |
| 19. Accumulation of tax cases | | 1 | | 1 |
| 20. Complexity of tax law | | 1 | | 1 |
| 21. Lack of proper tax culture | | 1 | | 1 |
| 22. Poor enforcement of direct tax law | | 1 | | 1 |
| 23. Lack of systematic crimes prosecution | | 1 | | 1 |
| 24. Corruption of tax agents | | 1 | | 1 |
| 25. Vast and various exemptions | | 1 | | 1 |
| 26. Income/ability to pay | 4 | 3 | 1 | 8 |
| 27. Tax rate | | 3 | | 3 |
| 28. Humane orientation | 1 | | | 1 |
| 29. Affiliation to current government | 1 | | | 1 |
| OTHERS: | 5 (83%) | 1 (17%) | | 6 (100%) |
| 1. Marital status/Married | | 1 | | 1 |
| 2. Age | 3 | | | 3 |
| 3. Gender (Women more likely to be tax compliant)” | 2 | | | 2 |

Analytical Approach

Meta-analysis is basically employed to analyze the findings of the reviewed studies, which summarizes the results of several findings into a single estimate of the effect. As mentioned by Hedges & Olkin (1980) that the tax compliance studies are

heterogeneous in nature with regard to their dimension and analytical methods, hence meta-analysis weak form technique named “vote counting technique” is appropriate. According to Zou (1998) vote counting technique presents in a summarized way for every independent factor and count the



number of positive, negative or insignificant effect studies on tax compliance separately.

Depending on the total count of studies, we must reject the null hypothesis of “no effect” if a critical value is less than the count of positive results. It is further based on the assumption that if a variable make real positive impact on compliance as a consequence there is a high probability that the various experimental studies reports a positive effect (Hedges & Olkin, 1980; Chetty & Hamilton, 1993; Zou, 1998). Hence, an effort was made to encapsulate outcomes of the study reviewed by applying vote counting techniques as well as by applying the theoretical framework of TPB.

Research Findings

Independent Factors

As there are a number of factors that are theorized to encourage tax compliance, hence, difficulty arose in comparing the results of different studies. Indeed, the number of diverse operative factors in the twenty studies reviewed was more than seventy. The variables used were often distinctive to a single study and therefore the major constraint was the lack of harmony in classification amongst them.

Theoretical Framework

The second problem is that there is no one theoretical framework that makes selection of independent factors possible by cutting across various studies. As half of the studies reviewed lack any conceptual reasoning in developing the research hypothesis, the researchers need to be more careful as to the relevance of theory while conducting tax compliance research. Had there been a conceptual framework, the comprehension of the key variables that may affect the behaviour of tax compliance would have been much easier.

In order to assimilate the different factors, the operative factors should be classified by applying the basic concepts of theory. Therefore, to accomplish this, a quick scan of the related literature is warranted so as to find an appropriate theory for assimilating the different factors. Hence, we first discuss the brief overview of determining various factors of tax compliance followed by the theories of tax compliance.

A brief overview of key determinants of tax compliance

Although there is a broad literature by various individuals on the determinants of tax compliance, the influential paper by Allingham and Sandmo (henceforth AS) (1972) with some important earlier exemptions, plays a major role in tax compliance research in economic theory. So the AS model acts as the basis of compliance models established in this model. But before presenting that model, determinants of tax compliance are concisely studied.

As stated, for individuals there are mainly two key components which govern the ultimate conclusion of tax compliance selections, viz; 1) what are the possible selections and 2) what selections are measured necessary by individuals. The possibility of diverse equally necessary evasion selections or, more precisely, an individual's competence to select among the various actions, is defined by the individual behaviour and

also by his environment condition. Indeed this feature is captured in AS model by the chance of penalty structure and the consequence which altogether institute an instantaneous description of the efficiency of tax implementation or enforcement. Both of the abovementioned factors up to a certain level are affected by inducement in tax organization. In addition to enforcement, various extra significant factors have been instigated that can distress tax compliance.

Tax burden, particularly tax rates is the main reason behind tax evasion. Almost all the studies till date find a negative influence of tax rates on tax compliance but the theory shows it as indeterminate (Das-Gupta et. al., 1995).

Voluntary compliance would be possible with the increasing attractiveness of the formal sector in relation to cash or comfortable economy. Therefore, to increase tax compliance, there is a need of effective operational program.

Number of distinct transactions to be perceived to authenticate a taxpayer's taxable income determines the affluence with which evasion can be identified. If the transactions size is correlated with the development of economies of scale, this may lead to reduction in non-compliance (Das-Gupta and Mookherjee, 1998).

Better monitoring would be imaginable when there is high industrial attentiveness that involves fewer huge taxpayers.

Deductions, timing issues, exemptions and imprecise provisions in the tax program are the major determinants of tax evasion and may lead to distress tax compliance. Also, the presence of a strong accounting profession helps in tax evasion (Alm, Bahl and Murray, 1990).

Cultural factors also play a major role in persuading taxpayer attitudes as is evidenced by the research primarily in the US. The foremost factors between them are knowledge related to economy, social class and their income, occupation, sex, age, reverence to authority, risk aversion, peer outlooks towards evasion, race, social contact, and bribe payment.

The perception of the taxpayer as to how the government applied taxes in an effective way to offer a required mix of communal goods might distress taxpayer compliance.

Most importantly, the impact of complex compliance costs in encouraging non-compliance and enhanced taxpayer facilities in encouraging compliance have also been inveterate.

Several abovementioned factors have consequences for the proposal of suitable compliance strategy. For illustration, the evidence advocates that a well-mannered and cooperative tax management and generalization of tax forms might cut the cost of compliance and increase compliance at the marginal. In another illustration, the more percentage of inefficient government disbursement leads to encourage non-compliance. Nevertheless, the nature of factors deliberated is moreover of long-run and also many of them cannot be applied to describe the short-run deviations in tax compliance.

We now discuss the theories of tax compliance in the next section.

Theories of Tax Compliance

The review of 20 literatures recommends that numerous

theories of attitude and behaviour, which comes from the psychological sciences as well as from economics, are suitable in classifying the factors in this study. These comprise:

Allingham and Sandmo (AS) (1972) Model,

Institutional Anomie Theory (IAT), and

The Theory of Planned Behavior (TPB).

Allingham and Sandmo (1972) Model

In the model proposed by AS, the income of the taxpayer is presumed to be 'P' and according to Alm, Jackson and McKee (1992) the taxpayer also selects declared income 'D' which is to be shown to the tax agency. In addition, that declared income will be taxed at rate 'r', also there is no tax on undeclared part of the income but in such case a fine 'f' is charged on taxpayer against cheating with the probability of detection 'p'. Eventually, there will be two approaches that can be selected by the taxpayer i.e., either he has to declare his real income or he could state a smaller amount than his real income. If the taxpayer selects the former approach then there will be no issue at any cost; but if the taxpayer selects the latter approach he might be inspected by the tax authorities. Now, his payoff will be subject to whether he is inspected or not; in case he is lucky then he must be in a better condition than the former approach else he finds himself in a worse condition as the penalties may be imposed after scrutinized. Therefore the taxpayer selects D to get the most out of the anticipated value of the evasion gamble. The above context recommends that stated income is determined by I, p, f and r and given as: $D = f(I, p, f, r)$

It can be inferred from the model that the stated or the declared income 'D' is directly proportional to income 'P', audit rate 'p' and fine rate (penalty) 'f' but it is inversely proportional to tax rate 'r'.

However, according to Almet. al., (1992), the compliance decision can also be affected by certain other variables; though government "takes away, it also gives back" and this certainly exerts impact on evasion or compliance. The stated income 'D' could be altered to imitate individual's acknowledgment of Government disbursements 'G' as follows: $D = f(I, p, f, r, G)$

Thus it can be inferred that the tax compliance is directly proportional to the paybacks or the benefits (in the form of public goods financed) perceived by individuals by their tax payments.

Evaluation of the Allingham and Sandmo (1972) Model

The economic contemplations method and its postponements applied in the model are grounded on the presumption that the taxes paid by the individual's is only due to the economic contemplations of the evasion gamble and also due to their fear of exposure and punishment. Though, it is vibrant that compliance can't be described completely by only economic contemplations and level of implementation. Indeed the study done by Alm (2012) revealed that in most of the countries the proportion of income tax revenues including the comprehensive tax audit is significantly small, nearly less than 1% of altogether. Though, the AS Model

is well-designed and simplified, yet several theoretically significant non-economic aspects are inevitably misplaced.

Institutional Anomie Theory (IAT)

Anomie also spelled anomie is a "condition in which society provides little moral guidance to individuals". In addition, it is a sociological philosophy which states that the decisions made by individuals is built on socialized values, that may be contradictory if treated separately but may balance if treated altogether, producing behaviour measured "normal" by humanity. Further Itashiki (2011) in his study revealed that the conclusions made on an imbalanced set of standards may yield deviant behaviour, for example crime on a daily basis. Specifically, the Messner & Rosenfeld (2001) "Institutional Anomie Theory (henceforth IAT)", which can be treated as current version of anomie theory, seems readily pliable for observing the correlation among the cultural beliefs and tax evasion behaviours (Riahi-Belkaoui & Picur, 2000). IAT identifies assertiveness, individualism, achievement and humane orientation as the four ideally resulting sets of general social dimensions expected to destroy or encourage tax evasion.

Distinctive social values established the phase for behaviours that highlight the quest of businesses self-centeredness, mostly ignoring anxiety for ethical values. According to IAT and as per Bame-Aldred, Cullen, Martin & Parboteeah (2011) study, distinctive social values instigate business decision creators to select goal completion beyond worries for the moral or permissible means to attain goals. Therefore, in such cultures, businesses more freely diverge from conventional standards and evade taxes. In contrast, Triandis (1995) in his study showed that socialist cultures favour loyalty to the larger cooperative rooted in the view that social participants are inter-reliant and intrinsically should discourage separate gains at the cost of the group. This further recommends that distinctive social values should swell attractions for businesses to evade taxes.

Theory of Planned Behaviour (TPB)

Fishbein & Ajzen (1975) proposed the "Theory of Reasoned Action" which after a decade later extended by Ajzen (1985) in the form of "Theory of Planned Behaviour". As per the earlier theory i.e., "Theory of Reasoned Action (henceforth TRA)", individuals' behaviour can be caused by two major factors; attitudes and social norms. While in the former factor individuals assess the recommended behaviour as taking positive results and in the latter factor the individuals assess their behaviour as per other want them to execute.

Many past studies including Sheppard, Hartwick, & Warshaw (1988) have confirmed the presence of high degree of correlation among the two factors attitudes and subjective norms. Contrariwise, the similar researchers have overstretched the high correlation among the social norms, attitude and behavior. In addition, all of them claimed that due to contingent restrictions, social norms and attitude never lead to behavior. Hence, to increase on the analytical influence of the TRA, Ajzen (1985) implanted a new factor "perceived behavioural control", which accounts for incomplete



individual's behaviours. Hence after this, the extended version of TRA is known as "Theory of Planned Behavior (henceforth TPB)" (see Figure 1).

Behavioural, Normative and Control beliefs: The three factors of Ajzen (1985) TPB are explained as follows:

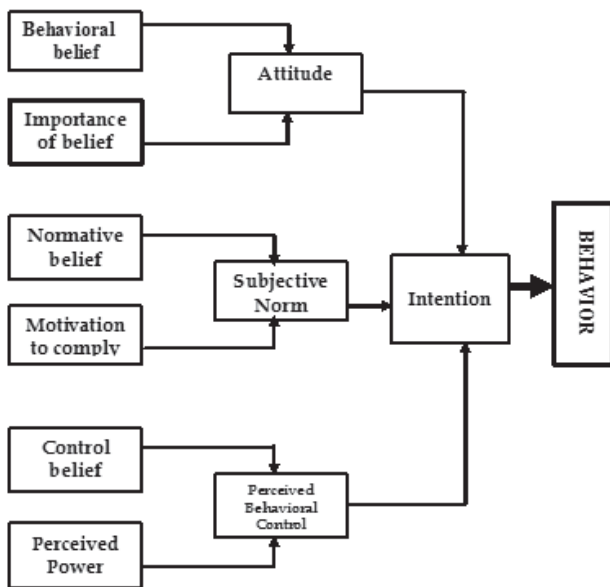
Attitude is "a function of behavioral belief or salient information, which is the perceived likelihood that performing the particular behavior will lead to certain consequences, weighted by the extent to which these consequences are valued".

Social norm is "a function of normative belief which is the perceived pressure from specified referents to perform the target behavior, weighted by the motivation to comply with the people one cares about".

Perceived behavioural control is "determined by control belief which is the perceived access to the necessary resources and opportunities to perform a behavior successfully, weighted by the perceived power or effect of the particular control factor".

Intention and Behavior: It can be seen in the Figure 1 that intention is measured to be the immediate predecessor of behaviour. Whilst the former is defined as the intellectual representation of an individual's willingness to accomplish a given behaviour, the latter is considered as transformation of intention to action.

Figure 1: Theory of Planned Behavior



Thus, the foremost postulate of the "Theory of Planned Behavior" is relate to intention and behaviour which state that there is one close factor of behavior, i.e. the individual's intention to accomplish or not accomplish it. In addition, with respect to specific behaviour, the intention further observed by three things: "attitude, subjective norm and subjective control". More precisely, the TPB ensures that the individual's behaviour can collectively predict by attitude, subjective norms, perceived behavioural control and intentions.

Synthesis

The aforementioned theories of tax compliance showed were not competing rather they were treated as complementary with

one another. Each theory focuses on different features of the several determinants of compliance. In addition, every feature adds an improved understanding of person's behavior towards tax compliance or evasion. Also it can be understood that no theory has been developed solely which includes all tax compliance predictors.

However, all the theories cannot be as differentiated as their names appear. Though they all known as diverse terms, but in actuality they overlay and apply various similar explanatory variables. More precisely, the economic contemplations and level of implementation used in ASModel is moreover common as TPB thought of Subjective Control. Similarly, the whole of IAT is common as TPB thought of Subjective Norms. Hence, among all the broadest theory seems to be is TPB, as it assimilates, yet not entirely, thoughts from the former two theories and inserts new ones. Finally, the TPB model offers a suitable initial point in categorizing determinants that encourage tax compliance or evasion.

Classification of the Factors

As far as the classification of the factors was concerned, the TPB helps in classifying the several determinants of tax compliance. The general concept in the TPB is that three broad determinants i.e., "attitude, subjective norms and subjective control" is hypothesized as a function of tax compliance. Hanno & Violette (1996); Trivedi, Shehata, & Mestelman (2005); Hai & See (2011); Benk, Çakmak, & Budak (2011) and Damayanti, (2012) all the five studies out of the 20 studies reviewed followed the same classification approach very well.

It can be noticed that earlier the total factors that were operationalized were 70 out of which 15 were common and combined altogether, therefore leaving 55 fairly different factors. While reviewing the literature the researcher has divided the 55 factors into three categories i.e., 16 factors for Attitude, 7 factors for Subjective Norms and 29 factors for Subjective Control. Further, it can be noticed that 3 factors that cannot be placed in the three aforementioned categories were put in a different category named "Others". The major outcome of the study is that in the context of variable insertion, the determinant Subjective control acknowledged maximum attention with around 51% of the factors followed by Attitude with around 29% and finally Subjective Norms with around 9%. This recommends that subjective control is a paradigm with comparatively various operative dimensions, whereas subjective norms and attitude has comparatively fewer operative dimensions. The outcomes also recommend that around 6% of the factors applied in experiential studies can't be categorized into the comprehensive factors that establish the TPB.

Suitability of the variables applied in studies reviewed

The application of TPB implied that any experimental study based on tax compliance behaviour must contain in any case the variables that involve the three variable sets viz, "attitude, subjective norms and subjective control". Nevertheless, the studies reviewed displayed the typical scenario i.e., out of 20 studies only 13 of them included only one variables from the three variable sets. This recommends that the studies reviewed endure from identification errors by not being broad in their insertion of variables supposed to effect tax compliance.

Impact of Attitude, Norms and Control

Table 2 shows the results on effect of Attitude, Norms and Control by applying vote counting technique. The tabularization comprises in a summarized way for every independent factor and count the number of positive, negative or insignificant effect studies on tax compliance separately.

Did attitude plays key role in determining tax compliance?

The solution of the above question was given by both separate and combined analysis of the sixteen attitudinal factors acknowledged previously in this paper. As the separate analysis has done by applying counting method, so it can easily be determine that how many times tax compliance was related with every independent variable. In addition the separate analysis can determine either there will be positive, negative or no relationship exists, using one variable at a time. The analysis showed varied results for two variables namely, first variable "perception of equity and fairness" (which four studies displayed positive relationships and one study showed negative relationship); and second variable "Perception of equity and fairness" (which three studies displayed positive relationships and one study showed no relationship). In addition, the above analyses recommend that both the factors definitely have positive association with tax compliance. Further, it can be noticed that remaining attitudinal factors revealed either negative or positive correlation with tax compliance; none of them showed diversified findings or no relationship. Hence, it can be determined that all the sixteen attitudinal factors applied in the study contribute either negatively or positively in determining the behaviour of tax compliance.

The purpose of the combined analyses altogether determine the number of results that showed positive, negative and those that showed no relationship in determining the behaviour of tax compliance. In addition, this analysis also indicates how appropriate the attitudinal variables applied in the studies reviewed were in determining the behaviour of tax compliance. A factor was presumed to be appropriate determinant if it showed association (either negative or positive) with tax compliance. The combined analysis displayed that out of the twenty-nine attitudinal results, seven results showed negative relationships and twenty-one showed positive relationships. As per the yardstick applied, it infers that the subjective control factors used in the study were appropriate determinants of tax compliance as all the factors applied produced influential findings.

Did subjective norms plays key role in determining tax compliance?

The solution of the above question was given in the similar manner as in the case of 'attitude' by both separate and combined analysis of the seven normative variables acknowledged previously in this paper. Actually the outcomes are moreover same as in the case of attitude. It can be noticed that all the seven normative factors revealed either negative or positive correlation with tax compliance; none of them showed diversified findings or no relationship. In addition, it is interesting to note that compliance and the factor "Known number of tax evaders" found to be negatively associated. This infers that individuals can encourage avoiding tax if they found others doing the same.

Further, the findings of the combined analyses display that out of the nine normative results, two results showed negative relationships and seven showed positive relationships. As per the yardstick applied, it infers that all the normative factors used in the study were appropriate determinants of tax compliance.

Did subjective control plays key role in determining tax compliance?

The solution of the above question was again given by both separate and combined analysis of the twenty-nine subjective control factors acknowledged previously in this paper. The following outcomes appear from the separate analysis of the factors; First, three factors namely, "Gross National Products"; "Individual ownership" and "Industry: agriculture" displayed no correlation with tax compliance or evasion. Second, three factors revealed varied findings i.e., "Legal sanctions - penalties and fines" (five studies displayed positive association, one study showed negative relationship and one study showed no association); "probability of being audited" (five studies displayed positive association and one study showed negative relationship) and "Income/ability to pay" (four studies displayed positive association, three studies showed negative relationship and one study showed no association). In addition, it can be noticed that the trend showed a definite positive relationship between both first and second factors and tax compliance whereas due to ambiguity in the trend for the last factor, it is concluded that there is no association between the last factor and tax compliance.

Third, it can be concluded that the remaining twenty-three subjective control factors either have positive, negative or no relationship with the tax compliance. The combined analysis displayed that out of the fifty-one normative results, twenty-one results showed negative relationships, twenty-five showed positive relationships and five results showed no significant relationships. As per the yardstick applied, it infers that the subjective control factors used in the study were appropriate determinants of tax compliance as they produced forty-six effective results out of the fifty-one results under subjective control.

Effect of other factors

It can be observed during the study that three demographic factors namely age; gender and marital status applied in the reviewed studies cannot be categorized into any three major determining factors of the TPB i.e., "attitude, subjective norms and subjective control." This recommends that tax compliance is a complex behavioural process.

Conclusions, Future Research and Implications

Conclusions and Future Research

It can be evident from the study reviewed that though the income tax compliance has been the theme of substantial experimental research, still till date no consistency in the determining factor of tax compliance has been attained. In addition, it can also be viewed that there are many and varied nature of factors suggested in the literature as determining factor of tax compliance. The major issue with this is that when carrying out experimental study and while selecting among the various predictor variables one must be encountered vary and large set of entrant predictors. Hence it is suggested that the further research focuses on to develop theory centered number of appropriate determining factor of tax compliance which can measure precise forecasts.



Second, numerous researchers lacked in explaining the choice of independent variable as they have carried out the research in the absence of a theoretical framework. Although, very few studies applied theory, but the application of theories are not wide. For example, the AS Model emphasizes on economic factors whereas the IAT emphasizes cultural factors. Merely the TPB holds a comprehensive variety of factors involving attitudes, subjective norm and behavioural control. It can be comprehend that most literature reviewed on tax compliance in this paper that didn't apply the TPB framework may be deceptive because of misspecification of the underlying variables.

However, the reviewed study recommends that the recent research done on tax compliance have adopted the TPB in more comprehensive manner. Hence the application of TPB has significantly fortified the theoretic foundation of tax compliance research. Now, authors would construct their research on some equitably broad theoretical basis.

In spite of constructive development in theoretical framework, there are various issues that affect tax compliance literature. As TPB is a generalized theory in nature and therefore it fails to detect behavioural aspects that are specific to tax compliance. Indeed it is the TPB prerequisite that the researcher must interview the respondents under study to define the significant attitudes, ascertain important social norms and define perceived behavioural control factors that are appropriate to the research or the study group. Therefore, it is advised that future research should construct questionnaire based on TPB and should be more tax specific. In addition that questionnaire must captures the significant features of tax compliance i.e., "attitudinal, normative and control factors" and follow it with experimental researches. Though the TPB is considered broad, the study outcomes recommend that this theory fails to capture the major determining factors of tax compliance. For illustration, in experimental studies reviewed it was found that demographic factors like age, marital status and gender were considered to be good predictors of tax compliance still they were not categorized to fit into any key determining factors of the theory. Hence it is advised that further research can put emphases on constructing a modified or extended version of the TPB that may capture behavioural aspects specific to tax compliance. As it can be understood that tax compliance is a complex behavioural process, a theoretically valuable study effort should put emphasis on categorizing the different underlying factors into various classifications like proximate, mediator, moderator and antecedent in determining the behaviour of tax compliance inside the common framework of the TPB.

The researcher observed that the vote counting technique might not applied appropriately as the variables used were often distinctive to a single study and therefore the major constraint was the lack of harmony in classification amongst them, hence it is problematic to associate the findings of the various studies. Regardless of this constraint, combined analysis of all the studies displayed that in general "attitudinal, normative and subjective control" variables applied were found to be appropriate determinants of tax compliance. Hence it is suggested that the future research emphasizes efforts in evolving common main determinants and terminologies of tax so that outcomes from the various studies can be compared. Finally, by

using equitable number of independent variables and perhaps by applying similar statistical tools, meta-analyses can be applied in future research to summarize the aggregate knowledge.

It has been observed that a significant amount of studies reviewed respondents were mainly students. Hence, it is advised that the future research should include real taxpayers instead of students as the latter respondents may not correctly comprehend and reveal precise behaviour of tax compliance.

Implications

From the outcomes and inferences the following research inferences for tax governance emerge:

First, from the review findings it was observed that the phenomenon of tax compliance in today's scenario is complex and wide. So, if the public policy makers want to induce and enforce tax compliance among the taxpayers, then they must use a blend of traditional coercive methods (subjective control) as well as persuasive methods (changing norms and attitudes).

Second, the findings revealed that in encouraging tax compliance individual taxpayers play a significant role and their influence is important. So it is essential to put a direct attention on changing attitude of individual taxpayers. By this, the preferment of taxpayer compliance could be protracted to procuring persuasive members of the community, friends, households and colleagues to distribute messages of tax compliance. If this course gains more figure, one can presume changing norms which in turn encourage the behavioral patterns. Hence it is recommended to the tax authorities to construct a well-adjusted methodology to tax implementation which in turn motivate the voluntary compliance (attitudinal factors & subjective norms factors) along with the application of the orthodox forced methods (subjective control factors) to induce tax compliance.

Last, it may advise government to develop a training programme to build a tax compliance culture that majorly focuses on three themes. The first theme focuses on 'attitude'; it means the training programme should create the perception that the revenues generated from tax are being employed appropriately. The second theme focuses on a training programme that creates awareness among the people and in mass media that the taxes collected from the different sources (especially displaying the examples of businessmen paying taxes) are being utilized in the enlargement for the country and build employment. In addition, these businessmen taxpayers should be presented as responsible citizens. Finally, the third training programme could describe tax evaders as cowarriors of the societal development who deserve to be scorn by the public and penalized.

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