

Factors that influence Tax Evasion in Australia and Turkey: A Structural Equation Model Study

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1. Introduction

The tax literature indicates that many factors impact upon and influence tax evasion and non-compliant behavior. In particular it is well documented in the tax literature, that fairness of the tax system (Cowell, 1992), compliance and enforcement (Slemrod 1992) and taxpayer's morals and ethics (Wenzel, 2003, Murphy, 2004), all play a key role in determining the level of tax evasion. In the economic literature there has been evidence of the factors which have impacted upon economic growth and the well-being of a country's citizens. These include, the issues of rivalry amongst individuals regarding income levels, over estimation of the benefits of increased consumption and generally a level of inequality in society (Griffith (2004). These later economic factors have also influenced tax evasion behavior.

However, it is evident that while tax and economic studies have investigated these factors independently there are few which have combined the factors into a truly multidisciplinary study. This paper proposes to overcome this research gap, and makes a contribution to the tax literature by investigating three specific economic factors that impact upon tax evasion employing a Structural Equation Model (SEM). In particular, the relationship between national well-being and life satisfaction, along with the relationship between tax involvement and life satisfaction will be explored. This will be followed by an examination of the relationship between life satisfaction and tax evasion. Following a recent study investigating tax evasion attitudes in Australia and Turkey (McGee, Devos and Benk, 2016),¹ this study also builds on that prior research by examining three distinct variables in a SEM, employing real taxpayer data in both Australia and Turkey. The justification for comparing Australia and Turkey was because of the diverse, economic, religious and cultural differences and how that may impact upon results.

The paper is structured as follows. After the introduction, a brief literature review of tax evasion generally, and specifically a review of the tax involvement, national well-being and life satisfaction studies, are presented in section two. Section three presents the hypothesis development for this study based on the review of the relevant literature. Section four proceeds to describe the research method, including the various measures and sampling employed. Section five provides a discussion and analysis of the research results, including participant demographics, statistical analysis of the variables employed and the Structural Equation Model. Finally, section six concludes, by summarizing the main findings and implications and notes the study's limitations and possible avenues for future research.

¹ The study employed student data only.

2. Literature Review

The following section briefly reviews the literature on the key variables employed in this study, namely; tax involvement, national wellbeing, life satisfaction and tax evasion.

2.1 Tax Involvement

There appears to be no specific definition of tax involvement per se as outlined in the literature, but it can be described as consisting of three factors for the purposes of this study. First, what role or ideal tax plays in a person's life and how central is it to the persons functioning. Second, how does a person think about tax, and are they conscience of what role tax plays in society. Third, whether taxation has any particular purpose or meaning in a person's life (Churchill 1979; DeVellis 2012).

Other studies have also developed the concept of tax involvement from the perspective of self-interest. For example, (Braithwaite, 2009) focused on how Australians thought about tax and discovered that tax outcomes and process need to be respectful of people's self-interest. In particular, the democratic collective self that expects government to deliver in exchange for taxpayer cooperation and the expectation of being respected as a citizen. This would include a taxpayer's trust in the tax authority (Braithwaite, 2009). Likewise, people's competitive self that aspires to wealth power and status in some cases, and to job, family and home in others. Here the opportunities for investment and prosperity are considered along with opportunities for tax minimization and avoidance (Braithwaite, 2009). Finally, a person's moral self that wants to be honest and seen as honest, law abiding, a good person that has no need to fear authority (Braithwaite, 2009). This would encompass a taxpayer's attitude towards tax evasion and employing ethical tax advisers. Clearly all these elements are critical in determining how connected and involved a person is with taxation.

A self-interest approach is equally applicable to an analysis of an individual's preferences towards taxation as was discovered by (Sumino, 2016). The findings of Sumino's study strongly support an institutionalist understanding of tax behavior. In particular the results reveal that attitudinal differences among different income groups become more salient in higher taxed societies (Sumino, 2016, 1131.) Based on these results Sumino concluded that 'tax targeting' does not have an interactional effect on the income-attitude linkage. Rather, relative to tax level, concentrated taxation might be invisible or hidden to ordinary citizens. Consequently, if taxpayers are not aware of, or do not notice the degree of tax concentration in their country then it is not surprising that they fail to react to tax policy context, or that the burden of tax policies are high in comparison to the expected benefits (Sumino, 2016, 1131-32). As such, taxpayers have little tax involvement, understanding or interest.

Evidence of how different people think about tax and the role it plays in society was uncovered in a study by Lim, Slemrod and Wilking (2013). The study aimed to investigate the views of both tax experts and the general public regarding various tax policy issues. Not surprisingly, given the different level of tax involvement and tax knowledge of the two samples, strikingly different views were discovered. In particular, the tax experts were largely in favour of the government's role in the redistribution of tax revenues while the general public were not. This may have been attributed to experts being trained to think of policy changes in a balanced – budget framework whereas the public generally do not. (Lim et al, 2013, 803). It is also acknowledged that differences in demographics, values and views about the economic consequences of tax policy alternatives may have also contributed to the differentiated results. (Lim et al, 2013, 798).

The self-interest argument explaining the level of tax involvement was also uncovered by Braithwaite (2009). A SEM was employed to gauge taxpayer attitudes to tax policy, and in particular the GST. Self-interest was a significant factor shaping attitudes with those feeling tax burdens expressing support for the goal of taxation efficiency (Braithwaite 2009). Self-interest was found to be relevant and had a role to play in policy evaluation and tax involvement. A further study by Prabhakar (2012) indicated that principles are important in shaping public attitudes to taxation and that in particular, people thought about both the benefits and costs of taxation. Although the study found that the public make systematic mistakes about taxation and that tax knowledge was found to be lacking, it suggests that while the majority of taxpayers may not be directly involved in the tax system there was evidence of thought and consideration towards tax Prabhakar (2012).

Further to the issue of tax having some meaning and purpose in people's lives, Roosma et al (2016) surveyed taxpayers' in 26 countries with regards to their attitudes towards social distribution. The results of their study confirmed that on average people want a bit more progressive taxation. They indicated that high income groups pay too little in tax while middle income and especially low income groups pay too much. Yet (Roosma et al, 2016) results also indicate that a large proportion of taxpayers believe the current tax distribution is "about right" and the group that oppose all taxes is marginal in every country. The results also imply that people are more content with their tax burden and may be satisfied with distribution of burdens generally although taxes do remain a matter of political dispute (Roosma et al 2016). These factors may also account for peoples' level of consciousness and involvement in taxation matters.

2.2 National Wellbeing

The concept of national wellbeing (NWB) is interpreted very widely and is often aligned with the concept of subject wellbeing (SWB) in the literature. A common feature in the SWB literature is the assumption that the net resources of a person matter, whether they are aware of it or not and that individuals with a higher living standard generally experience higher SWB levels (Akay et al, 2012).

An empirical study by Griffith (2004) drew on recent research on human happiness and found that happiness research is consistent with the strongest justification for adopting a progressive tax structure. The argument was based on the fact that where there is declining marginal utility, the redistribution of income can increase total welfare in society Griffith (2004). However, where some researchers have found a strong correlation between income inequality and well-being, after controlling for economic prosperity, other studies have found little connection. (Diener & Oishi, 2000). This may also be due to cultural differences.

Further happiness research suggests that additional income spent on positional goods may have little impact on overall welfare in society because the positional gains by one individual will be offset by the positional losses of another. Likewise changes in aspirational levels may diminish the gains from additional consumption (Griffith, 2004). Consequently, if increased hours worked results in additional taxes and less leisure time it is possible this will be a disincentive for people to work harder/longer. In this case the opposite effect of decreased working hours resulting in less money may encourage tax evasion as people look for other ways to fill the income void. People may look for the additional income/benefits via tax evasion rather than earning it in conducting extra work (Griffith, 2004).

Other studies have indicated that happiness per se may not be adequate when measuring NWB. For example, (Oishi et al, 2012) suggest that indicators of citizen's cognitive judgements of their society are also important. These include; trust in national institutions, tolerance, social cohesion, social trust and fear of crime. The general class of subjective indicators include; measures of people's attitudes and values, evaluations and perceptions as derived from their own experiences (Oishi et al, 2012). Hence the presence of money and financial gain alone as an indicator of NWB becomes questionable as is the case with life satisfaction discussed below.

Subject well-being (SWB) as a subset of national well-being (NWB) can also be considered in a cultural context. Davey and Rato (2012) found that SWB was normative in samples with varied socio-economic variables. Examining China, personal well-being (PWI) scores for citizens in Hong Kong, Macau and Zhuhai were similar despite different cultural, societal and wealth issues. Other studies have indicated that improved living standards for China's growing middle class have not necessarily resulted in greater happiness and has had minimal influence on SWB (Davey and Rato, 2012). So where the economic situation has improved in absolute terms their relative income position has deteriorated due to rising income inequality (Brockman et al 2009). There are similar findings in western nations where there is a gap between incomes and material aspirations and where money and materialism brings costs as well as benefits (Davey and Rato, 2012). In this regard, the comparison of NWB in Australian and Turkey in the present study, should also provide further insights with regards to differences in culture, religion and the legal system of each country and the implications for tax evasion.

2.3 Life Satisfaction

Life satisfaction refers to a cognitive judgmental process, and has been defined as "a global assessment of a person's quality of life according to his/her chosen criteria," Shin and Johnson (1978). It is important to note that the key factor here is having personal criterion and values in which to gauge overall life satisfaction. It is not imposed externally, and different components of life will matter more or less for different individuals. So besides the affective emotional aspects of the life satisfaction construct, the cognitive-judgmental aspects are critical and hence accurate measurement requires a multi-item scale, according to (Diener, Emmons, Larson and Griffin, 1985) which is employed later in this study. A review of the following studies illustrate that life satisfaction can vary greatly depending on an individual's circumstances.

An important aspect of happiness and life satisfaction is the inclination of having more money. However, do individuals overestimate and misjudge the value of money? Additional happiness does not necessarily come with additional consumption (Griffith, 2004). Most people think that a 25% increase in their pay will increase greatly their satisfaction with their lives, but individuals who are currently at that level do not report greater life satisfaction (Lane, 2000). Aspiration theory holds that an individual's aspirational level rises as income rises and this aspirational level is somewhat higher than their current income (Lane, 2000). The actual increase in welfare is less than what actually occurs and as such, the income increase is disappointing (Kahneman, 1999).

In addition to studies on income and welfare, data on life satisfaction and happiness has also been taken to be a direct proxy for utility. Frijters, Johnston and Shields (2012) employed life satisfaction data to examine the issue of optimal taxation. Employing Australian data the study found that under an optimal scheme those with the lowest marginal satisfaction with income would be taxed more heavily in favor of those with the higher marginal satisfaction with income. The results would be indicative of whether or not current transfer policies manage to

tax those with little marginal satisfaction with income to those with higher marginal satisfaction with income (Frijters, et al, 2012). The exception was younger single Australians who are taxed far more heavily than their high marginal satisfaction with income would predict (Frijters, et al, 2012). These findings have implications for tax evasion motivation and those that believe that they are unfairly over taxed to act accordingly and potentially evade tax.

Another study by Carrasco and Carulla (2012) found that persons with intellectual disabilities do not necessarily experience life satisfaction lower than normal and were generally satisfied with their lives. Conversely, this group of citizens have a potentially lower ability to evade tax and may not be considered a realistic threat to the revenue Carrasco and Carulla (2012). However, an individual's ability to enjoy life and the opportunities that are presented is not always related to a persons' physical, financial and emotional state. Consequently, further research is required to explore the relationship between affect and life satisfaction as well as the relationship between life satisfactions and domain satisfactions (Diener, Emmons, Larson and Griffin, 1985).

2.4 Tax Evasion

Tax evasion has been described as the illegal non-payment of tax properly owing under the law. It is distinguished from tax avoidance which is legal but against the spirit of the law and tax planning which is within both the spirit and legal confines of the law. Tax evasion which can also be aligned with intentional non-compliance, is employed simultaneously and interchanged throughout this paper. A review of the literature indicates that there are numerous factors that have influenced and impacted upon tax evasion over the years and the following analysis only attempts to provide a brief overview of the main studies.

A study by (Ajzen and Fisbein 1980) found that taxpayer's behaviour is directly determined by their intentions that are a function of their attitude towards behaviour and perception of social norms (cited in Devos 2009). Consequently, tax evasion is influenced by peoples' peers and community standards. Other researchers (Cialdini, 1989) have concluded that tax evasion could also be influenced, by educating taxpayers of their social responsibility to pay. Schmolders (1959) suggests as a behavioural problem, tax compliance depends on the cooperation of the public.

The work of (Hite, 1997) indicated that both gender and education generally impact upon taxpayer compliance/evasion. Hite points to an example of where in reducing the amount of litter in America, instead of the authorities increasing penalties, the real improvement came when there was the slogan uplifted to "Keep America Beautiful" (Hite, 1997, at 161). Although Hite's study provided evidence of the impact of these demographic variables upon non-compliance and evasion, other studies have found it difficult to find direct associations between evasion and demographic variables (cited in Devos, 2009).

Other social and psychology studies have found that the fairness and equity of a tax system also impacts upon compliance and evasion (Wallschutzky, 1984). In particular, the notion of "exchange equity" (where taxpayers believe they are not receiving the benefits from the government in exchange for taxes paid) affects compliance. Wallschutzky who found that the exchange relationship was the most important hypothesis explaining why taxpayers who evaded tax felt justified in doing so (cited in Devos 2009).

In Wallschutzky's study, a comparative analysis of the behaviours of tax evaders and those of the general population was conducted. Interestingly, the findings revealed that there was very little difference in the attitudes of both the evader group and the general population towards why people evade tax. In a later study by (Wallschutzky, 1985) this notion was reinforced where findings revealed that some 86 per cent of survey respondents considered that the level of income tax in relation to the level of government services was too high (Wallschutzky, 1985 at 43). Other findings from this study indicated that the burden of taxes was the main justification for increased levels of tax evasion and that tax advisers were perceived to have a significant impact upon taxpayers avoiding tax.

Although tax fairness is only one factor in achieving overall compliance, the NZ Government for example, has continuously placed great emphasis on this criterion (Tan, 1998). Tan believes that a fairer tax system will improve voluntary compliance. A number of other studies have also examined the link between perceptions of fairness with tax evasion (Richardson, 2006). For instance (Spicer, 1974) found a significant association between fairness and tax evasion while Song and Yarbrough's (1978) study discovered a significant association with 75% of the subjects stating that the ability to pay was more significant than the benefits. Hite and Roberts, (1992) found that most taxpayers thought that mildly progressive tax rates were the most fair and in a later study, found further that tax fairness was significantly associated with perceptions of an improved tax system, concluding that tax fairness and tax evasion were related. Chan et al, (2000) also found that taxpayer attitudes (fairness) had a positive relationship with tax compliance in both Hong Kong and the United States of America (USA) as cited in (Devos 2009).

On the other hand, other studies have found no association between tax fairness perceptions and tax compliance behaviour. (See Vogel (1974), Porcano (1988) and Antonides and Robben (1995)). A creditable reason for the inconsistency as suggested by Jackson and Milliron (1986) and Richardson and Sawyer (2001) is the multi-dimensional nature of tax fairness as a tax compliance variable. However, despite the inconsistent findings of various researchers, it is widely acknowledged that demographic variables, such as, age, gender, marital status, education, culture and occupation have an effect upon fairness perceptions which ultimately impacts upon compliance and evasion.

Some social psychology studies have also examined the impact of ethics and moral values upon tax evasion. Indeed, much of the empirical work that has been carried out by social researchers in this area tends to refute the economic model of compliance (that is that taxpayers are utility maximizing creatures that only weigh up the expected costs of non-compliance against the potential gains) in its basic form. For example, it has been demonstrated by means of laboratory experiments Alm, Sanchez, and De Juan, (1995) that, even where the deterrence factor is so low that evasion makes obvious economic sense, some individuals nevertheless comply due to their high tax morals and values (cited in Devos 2009).

A qualitative and quantitative study by McKerchar (2003) investigated the impact of complexity upon tax compliance focusing on Australian personal taxpayers. The findings revealed that the incidence of unintentional non-compliance and intentional over-compliance conducted through case studies was high. Australian personal taxpayers appeared to be overpaying their tax liability as a result of complexity and these findings confirmed earlier overseas findings Long and Swingen (1997).

Another study which investigated the impact of culture upon the perceptions of tax fairness and tax compliance was conducted by Gilligan and Richardson (2005). This empirical preliminary study of students from both Australian and Hong Kong universities revealed that there was no universal relationship or pattern that existed cross-culturally between the different facets of tax fairness perceptions and tax compliance. The authors indicated that legitimacy may well be the influence that shapes how fair tax systems are perceived and how likely people are to comply with their tax obligations (cited in Devos 2009).

Coleman and Wilkins (2001) revealed that there was a diversity of opinion and attitudes towards the tax system and compliance issues amongst the Australian public. One of the likely factors that could impede attitude change is the uneven level of comprehension or involvement in the tax system. This raises the issue of tax knowledge/education and the impact of this variable in improving overall taxpayer compliance. However, Niemirowski, Baldwin and Wearing (2001), found that the results of tax evasion behavioural research over the last thirty years has remained contradictory and inconclusive. The researchers indicated that this was mainly due to the research addressing only a few variables at a time. The authors concluded that despite extensive research there was still a lack of consistent reliable predictors or explanations of the causality of tax evasion (cited in Devos 2009).

Historically, there have been three main views on the morality of tax evasion (McGee, 2005, 2009; Crowe, 1944). At one extreme is the first main view that evading taxes is immoral and that one has an absolute duty to pay whatever taxes the government demands. Several justifications have been given for this position. One justification is that whoever is the king/leader is there with God's permission (McGee, 2005, 2009) and consequently the failure to support any leader appointed by God amounts to disobeying God. Another justification is that some individuals believe there is an absolute duty to pay whatever taxes the government imposes because, in a democracy, the leaders are elected and the people consent to be taxed (cited in McGee, Devos & Benk, 2016).

At the other extreme is the second main view that evading taxes is never immoral. Those who espouse this view often believe that all governments are illegitimate and need not be obeyed or supported financially (Crowe, 1944; Ross & McGee, 2012, Spooner, 1870). A more limited espousal of this view was made by Nozick (1974), the late Harvard philosophy professor, who equated taxes on income as the moral equivalent of slavery. For example, taxing away 40 percent of one's income is the equivalent of enslaving the person for two days a week. If one accepts his premise, then the logical conclusion would be that there is nothing immoral about evading the income tax, since slaves owe no duty to their master. (cited in McGee, et al, 2016). One counterargument would be that slaves owe at least some duty to their master because the master provides food, clothing and shelter to slaves (or that citizens owe some duty to the government because the government provides services to them) (cited in McGee, et al, 2016).

The third main view is that tax evasion may be justified on moral grounds sometimes. This view is the prevalent view in the theological (Crowe, 1944; Ross & McGee, 2012), philosophical (McGee, 1994) and empirical (Alm & Torgler, 2006; McGee & Guo, 2007; Torgler, 2007; Torgler et al., 2008) literature (cited in McGee, Devos & Benk, 2016).

Based on the forgoing literature review, the following research hypotheses have been developed and tested in this study.

3. Hypothesis Development

Braithwaite (2009) indicated that self-interest was a major factor for why people get involved with taxation. That is, there is a natural desire to become more prosperous or wealthy via understanding and appreciating the intricacies of taxation. Likewise, Griffin (2004) and Lane (2000), indicate that having greater wealth and utility may contribute to higher life satisfaction. Consequently, this study examines the relationship between these two of the four variables in this study and hypothesizes that tax involvement has a positive effect on life satisfaction.

H₁. Tax involvement has a positive effect on life satisfaction.

The literature appears to be mixed with regards to what constitutes both subject and national wellbeing. Griffin (2004) indicates that people tend to overestimate the benefits of additional consumption and wealth and that it does not necessarily lead to greater happiness or life satisfaction. Osiri and et al (2012) indicate that it is peoples, values, attitudes and perceptions towards life that are critical in assessing national well-being. However, if greater wealth and utility contribute to a higher standard of living it is possible that both SWB and NWB has also been enhanced and likewise life satisfaction. Therefore, the study proceeds to examine the relationship between these two variables and hypothesizes that national well-being has a positive effect on life satisfaction.

H₂. National wellbeing has a positive effect on life satisfaction.

The literature goes on to suggest that people's life satisfaction is arguably preoccupied with the accumulation of wealth and increased consumption. However, as indicated by Griffin (2004) the opportunity cost of earning additional income is the loss of leisure time and the disincentive to work longer hours. This situation has implications for the increased motivation for tax evasion and avoidance. The literature indicates that there are a myriad of factors which contribute to tax evasion including; complexity; McKerchar (2003), fairness; Vogel (1974), Porcano (1988) and Antonides and Robben (1995), exchange equity, (Wallschutzky, 1985) peoples ethics/morals (Crowe, 1944; McGee, 2012) and perceptions and social norms (Devos 2009). However, where taxpayers are at ease with all these factors they are more likely to be satisfied with life, and less inclined to be involved in tax evasion. Consequently, this study proceeds to examine the relationship between these two variables and hypothesizes that life satisfaction has a negative effect on tax evasion.

H₃. Life satisfaction has a negative effect on tax evasion.

The research model described in Figure 1 shows the relationships among the variables.

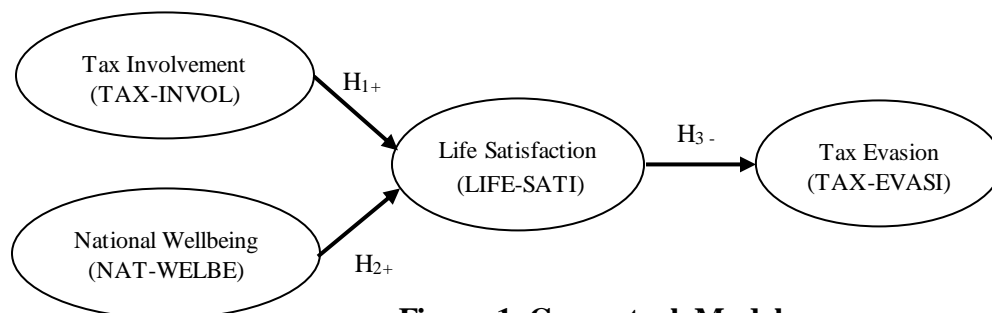


Figure 1. Conceptual Model

4. Method

4.1. Measures

A questionnaire instrument for the empirical study of the relationships among tax involvement, national wellbeing, life satisfaction, and tax evasion was developed on the basis of previous research and scale developing procedures. Moreover, all constructs concerning the scales were measured with multiple item-scales. Some items in the scales were developed from the related literature, and some were adopted from the literature and modified to the domain of the study.

4.1.1. Tax Evasion

Many studies on tax evasion have focused on the scale developed by Crowe (1944) and McGee (2005). The original scale contained 15 items. The statements were based on the reasons given to justify tax evasion over the past 500 years (Crowe, 1944), based on a literature review, plus three more recent issues regarding human rights abuses (Ross and McGee, 2012). Most of the studies on tax evasion, therefore, include a scale having 18 items. Consequently, this study, employed the tax evasion scale, which included eighteen statements regarding the reasons given to justify tax evasion, developed by Crowe (1944) and McGee (2005). All the items of the tax evasion scale are measured by a 7-point Likert scale from 'strongly disagree (=1)' to 'strongly agree (=7)'. The reliability coefficients for the total scale has 18 items (Cronbach's alpha) as in previous research on tax evasion, this indicated high satisfactory levels for cut-off point of (0.70) described by Nunnally (1978). The total scale reliability was (0.92) (see Table 4)

4.1.2. Life Satisfaction

The scale utilized the Satisfaction with Life Scale (SWLS) to assess taxpayers' degree of satisfaction in life. One of the most widely used scales to assess life satisfaction is the Satisfaction with Life Scale (SWLS) (Diener et al., 1985). The psychometric properties of the SWLS have been examined in different populations; the scale is reliable and has a high internal consistency (Carrasco and Carulla, 2012). The scale is a self-report measure, consisting of 6 items which are positively stated. All of the statements in the scale were presented, and respondents were asked to indicate their opinions on a seven-point Likert scale, ranging from "7=strongly agree" to "1=strongly disagree". The three items measuring life satisfaction had a Cronbach's alpha of (0.87) (Diener et al., 1985) which indicated acceptable internal consistency (See Table 6).

4.1.3. National Wellbeing

Items measuring wellbeing were obtained from the International Wellbeing Index (IWI). The IWI index consists of two subscales: Personal Wellbeing Index (PWI) and National Wellbeing Index (NWI). The scale of NWI consists of six items retrieved from a study by Davey and Rato (2012). The items of IWI were answered on a 5-point end-defined Likert scale, anchored from very bad (1) to very good (5), with higher scores indicating a strong tendency for satisfaction. The six items measuring national wellbeing had a Cronbach's alpha of (0.93) (See Table 6).

4.1.4. Tax Involvement

To develop a valid scale to measure tax involvement, this study adopted a research framework based on existing studies (Churchill 1979; DeVellis 2012). To assess the taxpayers' level of interest towards tax matters, tax involvement was measured with six items developed by the authors. The items in the tax involvement component was developed by the authors according to the scale development procedure recommended by Churchill (1979). The procedure include four basic steps: (1) Developing initial items; (2) implementing purifying measures; (3) collecting data; and (4) assessing the validity and reliability. To develop initial items, in Turkey,

a combination of data from in-depth interviews (23 taxpayers) and a review of the tax involvement literature was applied. Afterwards, a set of items designed to measure each of involvement dimensions was developed. The items were purified based on a pilot study (52 taxpayers) and expert opinion, as suggested by Churchill (1979). Based on this feedback, the items in the scale were adjusted to apply to the taxpayers. All the items of the tax involvement scale (TAXINVOL) are measured by a 7-point Likert scale from 'strongly disagree (=1)' to 'strongly agree (=7)'. Exploratory factor analysis (EFA) and then, confirmatory factor analysis (CFA) were applied to assess validity and reliability. All of the coefficients regarding validity and reliability were satisfactory. A full listing of the six final items and their scale reliabilities is seen in Table 2. The total scale reliability (Cronbach alfa) was (0.79), as indicated by (Nunnally, 1978).

4.2. Sampling

Sampling in this study comprised taxpayers who reside in two countries, Australia and Turkey. These two countries display marked economic, social and cultural diversity, thereby providing a good basis for exploring their perceptions on tax evasion, tax involvement, wellbeing, and life satisfaction. Real taxpayers were selected as the focus for this assessment, due to these people being actively concerned with tax issues. A convenience sampling method was used to apply the questionnaire. The data was collected in Turkey, using questionnaires which were self-administrated to citizens who pay tax. Each person answered the questionnaire individually. A total of 733 questionnaires were administrated. This sample size was acceptable to estimate the ten parameters using the commonly applied rule of thumb of five to ten subjects per parameter (Kline, 2005).

In this study, a scale containing most items (18 statements) on tax evasion; were employed which meant that the total of sampling was higher for this criteria (i.e. $10 \times 18 = 180$). Prior to applying the questionnaires, potential participants were informed that their contribution to the study was completely voluntary. The study's participants did not receive monetary compensation for participating in the study. In Turkey, out of 650 questionnaires distributed at popular places in Eskisehir, Turkey, 480 questionnaires were returned, resulting in an overall response rate of 73%. A self-administrated questionnaire was conducted to collect data from taxpayer consumers in Eskisehir, a midsized city in central Anatolia region of Turkey, between November 2015 and January 2016. In Australia, an online questionnaire was conducted via a website² for 45 days to collect sample data. On average, the questionnaire took 15 min to complete. A total of sixty four surveys (28 in Turkey, 36 in Australia) were deemed unusable due to invalid responses (e.g., blank, double answers, etc.) and were therefore eliminated from the sample. The total number of useable respondents was 733 (480 in Turkey, 253 in Australia).

5. Discussion and Analysis of Research Results

5.1 Demographic Characteristics of Participants

Table 1 shows demographic characteristics of the respondents who are from Turkey and Australia. The largest groups of respondents in Turkey (63.1 percent) were males, however, the gender ratio was approximately equal in Australia. In terms of marital status, 26.7 percent of the respondents were married in Australia, and 61.1 percent of Turkish respondent were married. Personal income was measured as Turkish Liras (TL), and Australian Dollar (AUD). At the time of the study, AUD 1.00 was approximately equal to TL 2.15. When Average

² (See <http://monashbuseco.qualtrics.com>)

monthly income was examined, 42.7 percent of respondents had a monthly income of AUD 930 or less in Turkey. However, Australian respondents had AUD 3001-6000 (23.7 percent). In both countries, the proportion of undergraduate educational level or equivalent was high, 49 percent for Turkey, and 44.6 percent for Australia. As shown in Table 1, there are a wide range of terms of occupation groups, however, the ratio of office workers in Australia (30.8 percent) was much higher than other occupational groups.

Table 1. Demographic Characteristics of Respondents

<i>Turkey (N=480)</i>			<i>Australia (N=253)</i>		
	<i>f</i>	<i>%</i>		<i>f</i>	<i>%</i>
<i>Gender</i>			<i>Gender</i>		
Male	303	63.1	Male	127	50.2
Female	177	36.9	Female	126	49.8
<i>Marital Status</i>			<i>Marital Status</i>		
Married	293	61.1	Married	67	26.7
Single	171	36.6	Single	150	59.8
Other	16	3.3	Other	34	13.5
<i>Education Level</i>			<i>Education Level</i>		
Primary or Secondary	50	10.4	Primary or Secondary	25	10.0
High School or equivalent	157	32.7	High School or equivalent	58	23.1
Undergraduate or equivalent	235	49.0	Undergraduate or equivalent	112	44.6
Post graduate or qualification	38	7.9	Post graduate or qualification	56	22.3
<i>Monthly Income</i>			<i>Monthly Income</i>		
930 AUD and <	205	42.7	Undeclared	52	20.6
931- 1860 AUD	152	31.7	3000 AUD and <	41	16.2
1861- 2790 AUD	54	11.3	3001- 6000 AUD	60	23.7
2791- 3720 AUD	29	6.0	6001- 9000 AUD	33	13.0
3721 AUD and >	40	8.3	9001- 12000 AUD	29	11.5
			12001 AUD and >	38	15.0
<i>Occupation</i>			<i>Occupation</i>		
Officer worker	81	16.9	Office worker	78	30.8
Retail or shops	83	17.3	Retail or shops	22	8.7
Retired	36	7.5	Retired	1	0.4
Housewife/home duties	17	3.5	Housewife/home duties	3	1.2
Managerial	38	7.9	Managerial	59	23.3
Tradesman	85	17.8	Tradesman	21	8.3
Student	39	8.1	Student	5	2.0
Other	63	13.1	Other	64	25.3
Self-Employed	38	7.9			

5.2 Measures

5.2.1 Tax Involvement

Tax involvement (TAX-INVOL) scale was first subjected to exploratory factor analysis (EFA) to delineate the underlying factors. EFA with Varimax rotation, particularly useful for checking the unique (explained) and error (unexplained) variance of a specific variable (Hair et al. 2006), was employed on the tax involvement data. The communalities ranged from 0.493 to 0.741 suggesting that the variance of the original values was fairly explained by the common factors. The Kaiser–Meyer–Olkin (KMO) amounted to 0.727, which indicated that the sample was adequate for factor analysis. BTS was 1336.123 ($p < 0.01$), indicating that the hypothesis variance and covariance matrix of variables as an identity matrix was rejected; therefore the factor analysis was appropriate. Table 2 displays that all the factor loadings had satisfactory values greater than the cutoff value of 0.40 (Nunnally and Bernstein, 1994). The values of the

reliability coefficient ranged from 0.73 to 0.79, also indicating satisfactory values (Nunnally, 1978).

Table 2. Factors and items related to TAX-INVOL scale

<i>Factors</i>	<i>Std. Load.</i>	<i>TUR</i>		<i>AUS</i>		<i>t</i>
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
<i>Role and Centrality</i>		5.03	1.50	4.13	1.27	8.07*
Tax has a central role in my life	0.76	4.83	1.78	3.98	1.43	
I know the tax rate because it encompasses many areas of our lives	0.81	5.22	1.64	4.29	1.40	
<i>Consciousness</i>		5.81	1.31	5.33	1.11	4.98*
I really like being a conscious citizen	0.78	5.57	1.57	5.12	1.30	
People need to be informed citizens	0.84	6.08	1.38	5.55	1.10	
<i>Meaning in life</i>		5.58	1.56	4.87	1.44	6.08*
Tax means nothing to me‡	0.94	5.58	1.73	4.76	1.61	
Tax does not matter to me‡	0.78	5.59	1.74	4.96	1.42	

CR= 0.76, 0.79, 0.85 respectively according to factors.
 AVE = 0.62, 0.66, 0.75 respectively according to factors.
 Reliability (Cronbach's Alpha) = 0.73, 0.75, 0.79 respectively according to factors.
 ‡Reverse statement; total scale (six items) reliability = 0.79
 *p < 0.01

The results of EFA reveal three valid factors entitled as ‘*role and centrality*’, ‘*consciousness*’, and ‘*meaning in life*’, respectively. Three factors regarding tax involvement explained 66.83 % of the total variance, which is a satisfactory level of variance explanation (Hair et al. 2006); the eigenvalues ranged from 1.97 to 3.02. All the factors covered two statements each concerning the direct or indirect attributes of tax involvement. The first factor of *role and centrality* included two items with regard to tax's role in life, which resulted in an acceptable Cronbach's alpha of (0.73). The *Consciousness* factor comprised two items regarding subject conscious citizenship, with a Cronbach's alpha of (0.75). Similarly, two items in relation to *meaning in life* made up the third factor, with a Cronbach's alpha of (0.79). There were significant differences between the two countries related to all three factors ($t = 8.07$, $t = 4.98$, $t = 6.08$, respectively) regarding tax involvement (see last column in Table 2). The results indicate that the Turks tended to have slightly more tax conscience ($m=5.81$) than Australians ($m=5.33$). Likewise, tax played a more central role in the lives of Turks ($m= 5.03$) compared to Australians ($m= 4.13$) and overall tax meant more to Turks ($m= 5.58$) than Australians ($m= 4.87$). One explanation for the difference in tax involvement generally could be due to the attitudinal difference given the income groups between Turks and Australians in this sample, as found by (Sumino, 2016).

Table 3. CFA Results on Tax Involvement

<i>Fit Indices</i>	<i>Whole Sample (N=733) (TUR+AUS)</i>	<i>Turkey Sample (N=480) (TUR)</i>	<i>Australia Sample (N=253) (AUS)</i>	<i>Acceptable level</i>
X ² /df	2.33	2.21	1.12	< 5
RMSEA	0.043	0.050	0.022	< 0.08
SRMR	0.016	0.021	0.016	< 0.08
IFI	1.00	0.99	1.00	> 0.90
NFI	0.99	0.99	0.99	> 0.90
NNFI	0.99	0.98	1.00	> 0.90
CFI	1.00	0.99	1.00	> 0.90
GFI	0.99	0.99	0.99	> 0.90
AGFI	0.98	0.97	0.97	> 0.90

As EFA indices showed a satisfactory level, confirmatory factor analysis (CFA) was then employed to test the fit of the measurement model for tax involvement. Because chi-square value is sensitive in a large sample, the researchers mostly referred to additional fit indices. For this reason, the goodness-of fit of the model was assessed with the normed fit index (NFI), the non-normed fit index (NNFI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), standardized root mean square residual (SRMR). Hu and Bentler (1999) suggested 0.95 cut-off point for CFI and 0.09 for SRMR. According to Chiu and Wang (2008), AGFI and NNFI should exceed 0.8, 0.9, respectively. Additionally, according to Brown and Cudeck, (1993), RMSEA values higher than 0.10 indicate poor fit, values of 0.08 or less represent enough fit, and values of less than 0.06 indicate good fit. As seen in Table 3, the ratios of the χ^2 value to degrees of freedom ($\chi^2/df = 2.33, 2.21, 1.12$, respectively) is less than the cutoff point of 3, as suggested by Bagozzi and Yi (1988). The fit indices of tax involvement in whole sample (RMSEA = .043, CFI = 1.00, NFI = .99, IFI = 1.00) revealed an acceptable model fit. Furthermore, the goodness-of-fit index (GFI = .99) and adjusted goodness of fit index (AGFI = .98) are greater than the recommended value of .9. The root-mean-square error of approximation (RMSEA) is .06, which is less than .10 (Hair et al., 2006). Therefore, the overall fit of the full structural model was satisfactory.

5.2.2 Tax Evasion

The present study conducted second confirmatory factor analysis (CFA) to assess 18 items in tax evasion scale. Seven items of the tax evasion scale were removed due to the low factor loadings or multi-factorial loading. As a result of CFA, eleven items remained. Table 4 displays factor loadings, reliability coefficients, and AVE values regarding tax evasion. In line with the literature, the factors fell under the major headings of *fairness*, *tax system* and *discrimination*, respectively. *Fairness* included five items with regard to issues of fair use of tax, which resulted in a high Cronbach's alpha of (0.92). The *tax system* factor comprised three items regarding tax rates, using style of tax, with a Cronbach's alpha of (0.92). Three items in relation to *discrimination* issues made up the third factor, with a Cronbach's alpha of (0.86). In addition, significant differences between the two countries were discovered in relation to the *tax system* factor ($t = 4.07, p > 0.01$) and the *discrimination* factor ($t = 3.91, p > 0.01$) regarding tax evasion (see Table 4).

The results indicate that the Australians were more sensitive to the ethical issues surrounding the tax system ($m = 2.60$) compared to the Turks ($m = 3.20$). Likewise the Australians were more sensitive to ethical issues around tax discrimination ($m = 2.88$) compared to the Turks ($m = 3.46$). However, both the Turks and Australians had similar perceptions with regards to tax fairness issues. The later result is consistent with previous findings on the impact of tax fairness perceptions upon tax evasion (Spicer, 1974, Tan 1998, Wallschultzky 1984, Song and Yarbrough, 1978, Chen et al, 2000) and indicates that regardless of culture, tax fairness is universal. With regards to the former finding on tax system, one explanation could be that as the Australian tax system is quite complex and tax rates are high relative to Turkey, there is the potential for greater avoidance/evasion Mc Kerchar, (2003). It also appears that tax evasion is not justified on discrimination grounds and that there is a duty to pay. This finding is consistent with previous studies by McGee (1994) and Crowe (1944).

Table 4. Factors and items related to tax evasion scale

<i>Factors</i>	<i>Std. Load.</i>	<i>TUR</i>		<i>AUS</i>		<i>t</i>
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
<i>Fairness</i>		2.08	1.34	2.18	1.37	-0.92
Tax evasion is ethical even if most of the money collected is spent wisely	0.85	1.98	1.55	2.13	1.40	
Tax evasion is ethical even if a large portion of the money collected is spent on worthy projects	0.89	1.99	1.53	2.16	1.48	
Tax evasion is ethical if a large portion of the money collected is spent on projects that do not benefit me	0.91	2.25	1.70	2.20	1.39	
Tax evasion is ethical even if a large portion of the money collected is spent on projects that do benefit me	0.90	1.96	1.46	2.15	1.41	
Tax evasion is ethical if the probability of getting caught is low	0.85	2.20	1.72	2.23	1.50	
<i>Tax System</i>		3.20	2.04	2.60	1.58	4.07*
Tax evasion is ethical if tax rates are too high	0.87	3.01	2.20	2.40	1.59	
Tax evasion is ethical if the tax system is unfair	0.91	3.29	2.27	2.69	1.65	
Tax evasion is ethical if a large portion of the money collected is wasted	0.92	3.28	2.22	2.70	1.72	
<i>Discrimination</i>		3.46	1.99	2.88	1.73	3.91*
Tax evasion would be ethical if I were a Jew living in Nazi Germany in 1940	0.71	3.40	2.20	3.10	2.02	
Tax evasion is ethical if the government discriminates against me because of my religion, race or ethnic background	0.92	3.51	2.30	2.76	1.77	
Tax evasion is ethical if the government imprisons people for their political opinions	0.89	3.45	2.35	2.79	1.88	
CR= 0.95, 0.93, 0.88 respectively according to factors. AVE = 0.78, 0.81, 0.71 respectively according to factors. Reliability (Cronbach's Alpha)= 0.93, 0.92, 0.86 respectively according to factors. Total scale (eleven items) reliability = 0.92 *p < 0.01						

A variety of fit indices were used to assess the overall fit of the model to the data, such as χ^2 , RMSEA, SRMR, CFI, GFI, and AGFI (See Table 5). The overall fit of the model, especially for Australia sample, did not strongly fit the data because of some inadequate fit indices of RMSEA = 0.14 and GFI = 0.85, AGFI = 0.75. Hu and Bentler (1999) suggested that if GFI and AGFI perform poorly they are not recommended for evaluating model fit, and other better fit indices are considered. Moreover, Bagozzi and Yi (1988), indicated that all the indexes that exceed 0.80 meet the respective minimum criteria and shows good fitness for the data and theoretical model. Additionally, acceptable CFA results were achieved for the whole sample and Turkey sample. The GFI, CFI, and NFI exceeded 0.95, and the RMSEA and SRMR were equal or less than 0.08, indicating an acceptable model fit (Hair et al., 2006). Additionally, the observed normed χ^2 for model in the whole sample was 5.68, which is slightly more than 5, showing an acceptable model fit when sample size is considered. Consequently other fit indices were within the acceptance ranges, indicating a good of fit to the data. Based on these findings it can be concluded that the model of the tax evasion scale was empirically supported.

Table 5. CFA Results on Tax Evasion

<i>Fit Indices</i>	<i>Whole Sample (N=733) (TUR+AUS)</i>	<i>Turkey Sample (N=480) (TUR)</i>	<i>Australia Sample (N=253) (AUS)</i>	<i>Acceptable level</i>
X ² /df	5.68	3.90	6.08	< 5
RMSEA	0.080	0.078	0.14	< 0.08
SRMR	0.032	0.036	0.038	< 0.08
IFI	0.99	0.98	0.97	> 0.90
NFI	0.98	0.98	0.96	> 0.90
NNFI	0.98	0.98	0.96	> 0.90
CFI	0.99	0.98	0.97	> 0.90
GFI	0.95	0.94	0.85	> 0.90
AGFI	0.91	0.91	0.75	> 0.90

5.2.3 & 5.2.4 National Wellbeing and Life Satisfaction

National wellbeing and life satisfaction are commonly referred to in the literature and represent high reliability and validity indices. Accordingly, CFA was used to assess the scales relating to national wellbeing and life satisfaction. Table 6 shows the results of CFA for model concerning national wellbeing and life satisfaction. In addition, the results illustrate reliability coefficient, and descriptive statistics (mean and standard deviation) about the factors and items. Both national wellbeing and life satisfaction represent a unidimensional construct.

It is noted that self-reports on subject well-being (SWB) can be of a low quality and vulnerable to external disturbance and arbitrary measures. It is acknowledged that a combined happiness method developed by Ng (1996) may overcome these problems and improve the evaluation of overall national well-being. However, it is arguable whether an increase in an individual's subject well-being can be equated with "a particular kind of sensation" – Happiness (Kelman 2005). Consequently, other approaches to measuring SWB should be considered (Zhou 2012) and have been adopted in this study when considering NWB.

There was a significant differentiation ($t = -4.57, p > 0.01$) according to life satisfaction between two countries. Australian citizen's life satisfaction ($m = 4.80$) was higher than Turkish citizens ($m = 4.29$). While Australians were happier with the life conditions and prospects as opposed to the Turks, it is important to note that measurement is difficult and that both internal and external factors could play a vital role in influencing this level (Shin and Johnson 1978). Other than the factor of higher taxation, Australia offers potentially a more stable political and social system than Turkey and this may have also contributed to the result. Those with little marginal satisfaction with income compared to others with higher satisfaction may have also been a reason for the difference in life satisfaction scores (Frijters et al 2012).

However, no statistically significant difference was discovered between the Australian ($m = 2.65$) and Turkish ($m = 2.65$) samples with regards to NWB. Consistent results appeared with respect to national security, economic, environmental and social conditions. It should be noted that this situation may have changed within the last year in Turkey since the distribution of the survey, with the escalation in terrorism and the recent failed coup. However, the results also found no connection between income inequality and well-being which is consistent with the findings of Diener and Oishi (2000). The findings are also consistent with Davey and Rato's (2012) study which found that there was no difference in wellbeing for people of different cultural, societal and wealth backgrounds.

Table 6. Factors and items related to scales of national wellbeing and life satisfaction

<i>Factors</i>	<i>Std. Load.</i>	<i>TUR</i>		<i>AUS</i>		<i>t</i>
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
<i>National Wellbeing</i>		2.65	1.08	2.56	0.51	1.24
Economic situation in my country	0.87	2.71	1.19	2.50	0.60	
The state of the natural environment in my country	0.77	2.82	1.17	2.55	0.65	
Social condition in my country	0.89	2.65	1.16	2.62	0.70	
Government in my country	0.87	2.63	1.36	2.44	0.71	
Business in my country	0.83	2.41	1.18	2.60	0.59	
National security in my country	0.81	2.66	1.31	2.66	0.66	
<i>Life Satisfaction</i>		4.29	1.53	4.80	1.22	-4.57*
In most ways my life is close to my ideal	0.84	4.43	1.70	4.59	1.29	
The condition of my life are excellent	0.86	3.82	1.70	4.77	1.34	
I am satisfied with my life	0.81	4.61	1.78	5.04	1.35	
CR= 0.94, 0.88 respectively according to factors. AVE = 0.72, 0.70 respectively according to factors. Reliability (Cronbach's Alpha) = 0.93, 0.87 respectively according to factors. Total scale (nine items) reliability = 0.90 *p < 0.01						

The results of a CFA suggested that the fit measurement of the model was acceptable. The ratios of X^2/df were lower than < 5 , indicating acceptable intervals from two to five (Marsh and Hocevar, 1988). In the whole sample, values of other fit statistics indices are also acceptable: comparative fit index (CFI) = 0.99; incremental fit index (IFI) = 0.99; root mean square error of approximation (RMSEA) = 0.061; normed fit index (NFI) = 0.99, the non-normed fit index (NNFI) = 0.99; standardized root mean square residual (SRMR) = 0.019. The fit indices of national wellbeing and life satisfaction for Turkey sample ($\chi^2/df = 3.74$, RMSEA = .061, CFI = .99, NFI = .99, IFI = .99) revealed an acceptable model fit. However, the Australia sample represent poor values in terms of RMSEA = 0.095, and AGFI = 0.089. All the other statistics are within the acceptance ranges, indicating a good of fit to the data (See Table 7).

Table 7. CFA Results on Life Satisfaction and National Wellbeing

<i>Fit Indices</i>	<i>Whole Sample (N=733) (TUR+AUS)</i>	<i>Turkey Sample (N=480) (TUR)</i>	<i>Australia Sample (N=253) (AUS)</i>	<i>Acceptable level</i>
X^2/df	3.73	2.74	3.26	< 5
RMSEA	0.061	0.061	0.095	< 0.08
SRMR	0.019	0.023	0.044	< 0.08
IFI	0.99	0.97	0.97	> 0.90
NFI	0.99	0.99	0.96	> 0.90
NNFI	0.99	0.99	0.96	> 0.90
CFI	0.99	0.99	0.97	> 0.90
GFI	0.97	0.97	0.93	> 0.90
AGFI	0.95	0.94	0.89	> 0.90

5.3 Validity and Reliability

CFA was applied to examine the validity and reliability of the measurement models. Construct validity focuses on the extent to which the data exhibit convergent validity and discriminant validity. Convergent validity means that all statements are collected just under a single factor. Anderson and Gerbing (1988) suggest that evidence of convergent validity for a measurement model is present if all observable indicators load significantly onto their respective latent factors. Convergent validity was assessed with three types of indices: factor loading in the CFA,

composite reliability (CR) (Nunnally and Bernstein 1994), and average variance extracted (AVE) (Fornell and Larcker 1981). A factor loading exceeding 0.7 can be accepted as evidence of convergent validity, according to Bagozzi and Yi (1988).

Table 8. Squared Correlations among Factors

<i>TAX-INVOL</i>	<i>Role and Centrality</i>	<i>Consciousness</i>	<i>Meaning in life</i>
<i>Role and Centrality</i>	(0.62)		
<i>Consciousness</i>	0.17*	(0.66)	
<i>Meaning in life</i>	0.14*	0.12*	(0.75)
<i>TAX-EVASION</i>	<i>Fairness</i>	<i>Tax System</i>	<i>Discrimination</i>
<i>Fairness</i>	(0.78)		
<i>Tax System</i>	0.41*	(0.81)	
<i>Discrimination</i>	0.24*	0.37*	(0.71)
<i>NAT-WELL AND LIFE-SATI</i>	<i>National Wellbeing</i>	<i>Life Satisfaction</i>	
<i>National Wellbeing</i>	(0.72)		
<i>Life Satisfaction</i>	0.26	(0.70)	
*p < 0.01; AVE in parentheses			

In Table 2, it indicated that the Standard loadings were (between 0.76 and 0.94) for each factor in tax involvement. Similarly, all factor loadings regarding tax evasion (ranged from 0.71 to 0.92), and national wellbeing and life satisfaction (ranged from 0.77 to 0.89) (see Table 4, and Table 6, respectively) exceed the recommended level of 0.7 (Hair et al. 2006), indicating acceptable item convergence on the intended constructs. Additionally, to be adequate convergent validity factors, AVE and CR have to be greater than 0.5 and 0.7, respectively (Fornell and Larcker 1981). All AVE values for the three scales (Tables 2, 4 and 6) were higher than the acceptable level of 0.5. Moreover, values of composite reliability (CR) of all scales were well above the cut-off point of 0.7 (Nunnally, 1978). The current study results indicate a satisfactory convergent validity for all constructs, with AVE and composite reliability.

Discriminant validity, or the extent to which the measures of theoretically unrelated dimensions do not correlate with one another (Peter, 1981), was assessed by comparing the AVE value for each dimension with the value of the squared correlation between that dimension and other dimensions on the scale (Ping 2004). The discriminant validity refers to the degree to which measures of different concepts are distinct, which was checked by comparing AVE values for each construct and the squared correlations between the paired constructs (Fornell & Larcker, 1981). Table 8 shows that the AVE for each construct was greater than the squared correlations between paired constructs, demonstrating discriminant validity.

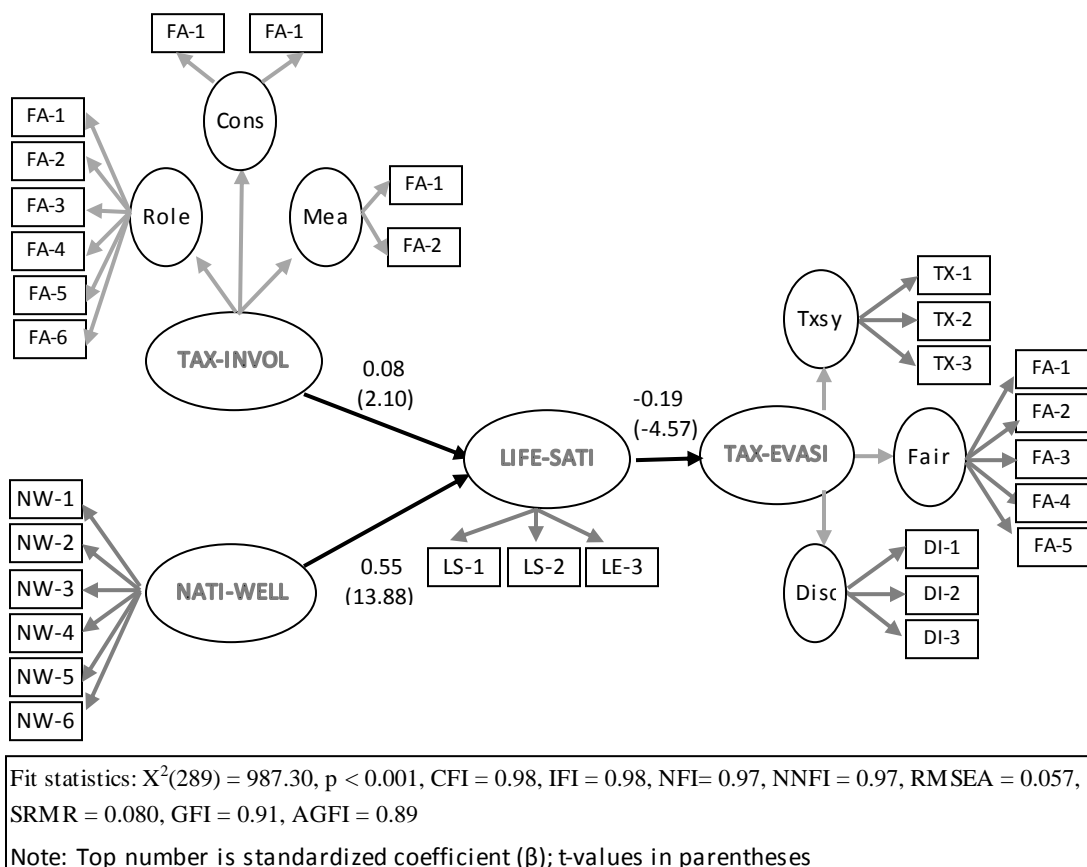
Following the convergent and discriminant validity, the reliability of the constructs was assessed. To examine the construct reliability of all models, Cronbach's alphas and AVE values were used. The results of reliability analyses (Table 2, Table 4 and Table 6, respectively) shows that the Cronbach's Alphas range from 0.73 to 0.93, which is considered high and above the recommended value of 0.70 (DeVellis, 2012; Nunnally, 1978). In the tax evasion scale, the values of the Alpha coefficient range between 0.86 and 0.93 (Table 4). The reliability coefficients for the total scale as 11 items (0.92) and four factors indicated high satisfactory levels for cut-off point 0.70 described by Nunnally (1978) and Kline (2005). Also Alpha values for TAX-INVOL scale (ranged from 0.73 to 0.79) and national wellbeing and life satisfaction (ranged from 0.87 to 0.93) provide enough evidence for internal consistency (see Table 2 and Table 6). Furthermore, the items measuring each constructs of TAX-INVOL, tax evasion, and national wellbeing and life satisfaction had a composite reliability (CR) \geq .76; thus, these values satisfied the criteria established by Nunnally (1978). The results reveal that the measurement model used in this study has good internal consistency reliability, convergent validity and

discriminant validity. In other words, these results on validity and reliability provide evidence for the instruments used in this study.

5.4 Structural Equation Model

The hypothesized research model was empirically tested using structural equation modeling (SEM). Structural equation modeling allows all paths to be evaluated simultaneously. LISREL 8.80 was used to test the conceptual model (see Figure 1). More precisely, the hypothesized model specifying the structural relationship among tax involvement (TAX-INVOL), national wellbeing (NAT-WELBE), life satisfaction (LIFE-SATI) and tax evasion (TAX-EVASI) fit the data well. The X^2 is significant ($p < 0.01$), which is usually the case for large sample sizes. Except for GFI and AGFI, all the other statistics were within the acceptance ranges, indicating a goodness of fit to the data. The results for sample indicated that the model fit the data well.

Figure 2. Structural Equation Model among Dimensions



The path coefficient estimates (standardized beta and t values) of the model is summarized concisely in Figure 2. The fit indices ($X^2 = 987.30$, $df = 289$, $X^2/df < 5$, CFI=0.98, IFI=0.98, NFI=0.97, NNFI=0.97, RMSEA = 0.057, SRMR = 0.080, GFI = 0.91, AGFI = 0.89) supported the appropriateness of the structural model. All structural path estimates were significant. The path analysis supports that all three hypotheses were accepted. In other words, there were positive and significant relationships between constructs of national wellbeing ($\beta = 0.55$, $t = 13.88$, $p < .05$), tax involvement ($\beta = 0.08$, $t = 2.10$, $p < .05$) and satisfaction with life. Rationally,

there were negative relationship between life satisfaction and tax evasion ($\beta = -0.19$, $t = -4.57$, $p < .05$). The strongest relationship was between national wellbeing and life satisfaction, moreover, this result is supported by many studies in the literature (Osishi et al 2012).

The weaker yet nevertheless meaningful relationship in the structural model was between tax involvement and life satisfaction. In the model, H3 suggested a direct path between life satisfaction and tax evasion (negative standardized coefficient of $.19$; $t = 4.57$, $p < .05$). The significant relationship amongst tax involvement, national wellbeing and life satisfaction, tax evasion, does not mean that tax involvement, national wellbeing as exogenous variables through life satisfaction were statistically significant. For this reason, indirect effects of tax involvement and national wellbeing through life satisfaction were calculated. The results of indirect effect analysis indicated significant indirect effects for tax evasion ($\beta = -0.10$, $t = -4.40$, $p < 0.05$) and tax involvement ($\beta = -0.02$, $t = -2.52$, $p < 0.05$). Thus, life satisfaction worked as a mediator in the paths from tax involvement and national wellbeing to tax evasion. Overall, the structural model was supported in terms of fit indices.

6. Conclusion

6.1 Summary and findings

The primarily purpose of this research was to reveal the tax involvement dimensions related to samples of Turkish and Australian taxpayers. Specifically CFA was applied to verify the tax evasion, national wellbeing, tax involvement and life satisfaction significant purpose. The second purpose of this study was to examine the structural relationship, if any, among tax involvement, national wellbeing, life satisfaction and tax evasion.

The main aim of the current study was to develop a reliable and valid measurement scale for taxpayer specific involvement to better understand the impact of involvement in a tax setting. Churchill's (1979) procedure for scale development was used to develop a 6-item TAX-INVOL scale examining three factors. Consequently, the study produced a new scale on tax involvement (TAX-INVOL). The scale demonstrated reliability, multidimensionality, and validity, as well as consistency across the Turkish and Australian samples. The dimensions of TAX-INVOL included; '*role and centrality*,' '*consciousness*,' and '*meaning in life*'. The findings of this study highlighted that there were significant differences between the two countries in relation to all three factors regarding involvement. Critically the main contribution of this study was to develop and validate the English and Turkish version of the TAX-INVOL scale.

Previous results have relied on EFA or descriptive statistics on items in a tax evasion scale. The CFA results in the current study indicate that dimensions of tax evasion can be conceptualized and measured as a three-dimensional construct comprising; '*fairness*,' '*tax system*' and '*discrimination*.' As indicated previously, the second purpose of this study was to examine the structural relationships among tax evasion, tax involvement, national wellbeing and life satisfaction in Turkey and Australia. The various dimensions of these factors were examined by employing the appropriate scales. The results revealed relationships existed between these dimensions. In particular, the overall results showed that life satisfaction plays a central role in the model. The relationship between life satisfaction and tax involvement although weaker, was still statistically significant and is consistent with the findings of Griffin (2004) and Lane (2000). Likewise a statistical significant positive relationship was found between NWB and life satisfaction. These findings are also consistent with previous studies of Griffin (2004), Vogel (1974) and Walschultzky (1985).

A negative relationship was found between life satisfaction and tax evasion, indicating that satisfaction with life may be a mediator between tax evasion, national wellbeing and tax involvement. The results of this study also indicated that tax evasion and involvement, also relate to National wellbeing and life satisfaction. Specifically, tax involvement and national wellbeing correlated positively with life satisfaction, however, satisfaction with life had a significant negative effect on tax evasion perceptions. The results of the analysis were generally expected. That is, if taxpayers had greater tax involvement and were positive about NWB they were more likely to have greater life satisfaction (positive relationship). Conversely, taxpayers with greater life satisfaction would be less likely to have tax evasion perceptions (negative relationship).

Investigating taxpayer perceptions regarding national wellbeing, life satisfaction, tax involvement or tax evasion is an important governmental activity of citizen-orientated countries. The provision of national wellbeing or life satisfaction in a country encourages citizen loyalty into the future. Consequently, it is necessary to build fair and strong tax, economy, and security systems, which represent key requirements for generating long-term happiness and life satisfaction. In that respect, creation and delivery of humanistic values is an important antecedent of citizen loyalty.

Other possible reasons explaining the significant differences between the two countries in terms of the NWB, life satisfaction and all the dimensions of tax involvement could also be due to cultural differences. It was expected that the diversity in legal, social and economic values between Australia and Turkey would have contributed to the variance of the results. Nevertheless, the findings provide several important insights into the relationship between tax systems and citizenship issues. It seems that the combination of national wellbeing and life satisfaction provided by governments not only relates to social issues but also taxpayers' perceptions. As such, the findings indicate that many issues both social and psychological may effectively shape perceptions in the tax context.

6.2 Limitations and Future Studies

Although this study makes a valuable contribution in the area of tax involvement, tax evasion, wellbeing and life satisfaction, it has several limitations that should be noted. First, the scope of this study was limited to only two countries (Australia and Turkey), which limits the generalizability of the findings. Even to extrapolate the findings to the general population is difficult as the samples are not truly representative. Also as the tax systems in the two countries are quite different from each other; it was highly likely that the perceptions of tax issues in these countries would vary. Therefore, future research could examine comparative countries with similar tax systems and cultures (e.g., collectivist, individualist); this would also enhance the researchers' ability to generalize the findings beyond two countries. To identify effective tax dimensions in life satisfaction, this study developed a structural equation model. However, this study investigated only the four variables: tax involvement, national wellbeing, life satisfaction and tax evasion. In practice, potential taxpayers are exposed to multiple variables, such as leisure satisfaction or happiness which may provide more effective tax dimensions. Further, other variables that may affect tax involvement (e.g. personal wellbeing, level of happiness and citizenship attachment) were not specifically examined. Future research, could consider the impact of these variables, and the effect of other variables to provide a more comprehensive understanding. Furthermore, socio-psychological issues may also be considered in an analysis of tax evasion.

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