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CONTENTS

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The role and dimensions of taxpayer commitment in tax compliance behaviour

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Abstract
Commitment is assumed to be a type of motivation that influences taxpayer behaviour. Generally, commitment is defined as

1. INTRODUCTION

Taxpayer commitment, as a factor influencing tax compliance behaviour, has been addressed in the tax compliance literature mainly as a 'type of motivation' (see Gangl, Torgler & Kirchler, 2015) and as a 'broad attitudinal kind of response by taxpayers to the expectations of authorities' (see Braithwaite, 2002). Meyer and Herscovitch (2001) propose that commitment is different from motivation or general attitudes: although this proposition is not made within the context of tax compliance behaviour research, their argument that commitment should have a 'core essence' regardless of the context in which it is studied, opens up the prospect of investigating the role of commitment in tax compliance behaviour. In reviewing a number of previous studies, Meyer and Herscovitch (2001, p. 301) observe that 'commitment may influence behaviour independently of other motives and attitudes and, in fact, might lead to persistence in a course of action even in the face of conflicting motives or attitudes'. In a tax compliance context, this may imply that taxpayer commitment can play an important role in explaining high levels of compliance, even in conditions of low trust, where there are perceptions of unfairness of the tax system or a weak relationship between taxpayer and tax authority. As Meyer and Herscovitch (2001, p. 301) declare, 'commitment can lead individuals to behave in ways that, from the perspective of neutral observers, might seem contrary to their self-interest'.

The term 'committed motivation' was introduced in the tax compliance literature as 'committed tax cooperation' by Gangl, Hofm

of why taxpayers comply with tax laws and how we can apply that understanding to promote voluntary compliance'.

Research in tax compliance behaviour indicates that most people are willing to be compliant and are more concerned with *how* to comply than *whether* to comply (Onu & Oats, 2015). This is congruent with the recognition expressed by many tax authorities worldwide that the majority of their taxpayers are compliant (see SARS, 2017; Australian Taxation Office, 2015; Canada Revenue Agency, 2013; New Zealand Inland Revenue, 2014). Nevertheless, considerable effort from the tax authorities is still concentrated on discouraging non-compliance. A summary of research done by the Organisation for Economic Co-operation and Development (OECD) in 2009 on the focus areas of compliance strategies by tax authorities, reveals that almost 40% of strategies aim at enforcement, penalties, sanctions or policy and process changes in an

Alm, McClelland & Schulze (1999); Wenzel (2005) on social norms). Yet little attention has been paid to the concept of *taxpayer commitment*. In studies that do mention commitment, it is rarely well defined, usually used in the context of being a type of motivation and mostly presented as a one-dimensional construct.

Gangl et al. (2015) argue that taxpayers differ in their motivation to pay taxes and suggest that different motivations to pay taxes correspond to different levels of reported tax compliance. They identify three main motivations of tax compliance according to the slippery slope framework: enforced, voluntary and committed motivation. Their recent study suggests that both enforced and committed motivations relate to tax compliance, the former in a negative and the latter in a positive way.

Therefore, although the concept of commitment has been used in previous studies in a tax compliance context, it has not been sufficiently investigated. Commitment, as a driver of behaviour, has been reported on extensively in organisational behaviour literature however and useful insights can be drawn from that field and applied to tax compliance behaviour. This paper aims to present a perspective on understanding taxpayers' willingness to comply with tax laws in which taxpayer commitment as a state of being is considered as a factor that contributes to the shaping of this willingness. Accordingly, factors studied in previous research, such as personal and social norms, perceived legitimacy of the tax system, fairness and trust, and tax morale are discussed with respect to commitment.

The next section presents the research objective, while Section 4 reviews the literature

'Mental models', on the other hand, originate from the cognitive side of social interactions, in other words — concepts that reflect the shared understandings of a community. This is often referred to as *culture* (World Bank, 2015). Although mental models are often shared and arise, in part, from human sociality, they differ from social norms as they need not be enforced by direct social pressure. Instead, they capture broad ideas about how the world works and one's place in it (social norms tend to focus on particular behaviours and needs to be socially enforced). 'People's mental models shape their understanding of what is right, what is natural, and what is possible in life' (World Bank, 2015, p. 12). Tax compliance research on taxpayers' perceptions and attitudes that shape compliance behaviour (such as fairness and trust and, conceivably, the motivational postures), therefore relates to the 'thinking within mental models' principle of understanding human decision-making. In other words, people use these mental models in the decision to be tax compliant or not.

If commitment is a mind-set that compels an individual to a certain course of action, it is thus possible that a *mental model of commitment* can exist which shapes taxpayers' willingness to be compliant.

4.2 Commitment in the tax compliance literature

Commitment is mainly used in tax compliance literature to describe a form of motivation. Best known and most widely used is Braithwaite's (2002) concept of 'commitment as a motivational posture'.

Commitment, as a broad attitudinal kind of response by taxpayers to the expectations of authorities, is introduced by Braithwaite (2002, p. 35) as a 'motivational posture'. Braithwaite further explains that motivational postures reflect the social distance that individuals wish to place between themselves and the tax authority. Braithwaite, Murphy and Reinhart (2007, p. 138) also note that motivational postures are 'conglomerates of beliefs, attitudes, preferences, interests, and feelings' that signal the degree to which an individual feels safe in the regulatory community and accepts the agenda of the authority.

In a hierarchical compliance model developed by the Cash Economy Task Force in Australia in 1998, the posture of commitment is placed at the broad base of the triangular shaped model (Cash Economy Task Force, 1998). This indicates that the majority of taxpayers are committed to comply. Braithwaite (2002) suggests that taxpayers in this category feel that paying taxes is a moral obligation and is in the interest of the collective. In other words, taxes are paid in good will. Other motivational postures in this model are capitulation, resistance and disengagement.

Gangl et al. (2015) use the term 'committed motivation' as one of the qualities of tax compliance motivations to describe taxpayers who feel a moral obligation and responsibility to be honest. They propose that this represents an intrinsic motivation to comply with one's tax obligation and includes the idea of actively contributing to society's well-being. However, if Armstrong's (2007) interpretation of commitment and motivation is considered, namely that commitment is a state of being while motivation is more dynamic and is about doing what one wants to do, it can be argued that 'commitment' as a driver of behaviour could be investigated separately from 'motivation'. Armstrong states that highly committed people may be motivated, but people who are motivated may not necessarily be committed and may actually be pursuing their own ends rather than those of their job or the organisation.

It is evident from the above that 'commitment' as a driver of the willingness to pay taxes has been addressed in previous studies on tax compliance, although it has been done somewhat one-dimensionally and deserves an exposition of its various dimensions.

Commitment has been studied extensively in an organisational behaviour context and for the present study, literature from this discipline is used to a large extent to develop the dimensions of commitment in a tax compliance context. It is not uncommon for research on tax compliance to build frameworks for understanding tax compliance behaviour using well established concepts from other disciplines. A good example is the 'psychological contract', which is used in both the tax compliance and organisational behaviour literature. Tax compliance scholars, Feld and Frey (2007), describe it as the fiscal exchange between state and citizens. In contrast, human resource scholars, Guest and Conway (2004), report that a psychological contract exists between employer and employee. In both cases, trust and shared expectations form the basis of the contract. Similarly, the concept of commitment studied in a organisational behaviour context may be underpinned by valuable principles that could also be applied in a tax compliance behaviour context.

5. METHOD

A two-phase design was followed in the present paper. First, relevant literature on the topic of commitment was systematically reviewed in order to define and discuss the possible dimensions of taxpayer commitment and to develop a model of taxpayer commitment. Thereafter, a survey was conducted and the results statistically analysed in order to empirically corroborate the assumptions made in the model of taxpayer commitment. The participants, survey instrument and method of analysis are discussed below.

5.1 Participants

A paper-based survey was conducted with undergraduate and postgraduate students and staff (academic as well as non-academic) acholars, G/TT11 1ilarwnotg9mtu

to be poor or insufficient, while the remainder considered their tax knowledge to be adequate or even highly sufficient.

5.2 Survey instrument

A paper-based questionnaire containing Likert-type scales on tax-related questions was used. Two scales presented as Section B and Section C in the questionnaire measured the following concepts: tax compliance intention and dimensions of commitment (Section A pertained to demographic information).

5.2.1 Tax compliance intention scale (Section B)

The items on the scale to measure tax compliance intention were similar to the scale used by Gangl et al. (2013), who developed the scale differentiating two aspects of tax compliance: administrative compliance (e.g. paying on time) and technical compliance (e.g. paying the correct amount). This scale was shown to have reliable internal consistency in the Gangl et al. (2013) study with a Cronbach $\alpha = 0.77$.

The five items used were as follows:

For administrative compliance*:*

1) To what extent do you think it is important that SARS receives a tax return in time?

2) To what extent do you think it is important that SARS receives as accurate as possible tax return from you?

3) To what extent do you think it is important that if after assessment you need to pay additional tax, SARS receives the money before the deadline?

For technical compliance*:*

4) To what extent would you consider falsifying or overstating deductions on your tax return?

5) To what extent would you consider not stating all of your earnings on your tax return?

Respondents were asked to reflect on their tax obligation and to consider the statements before selecting an option on a 4-point Likert scale where 1 = 'not at all important' (for items 4 and 5 'would never consider') and 4 = 'very important' (for items 4 and 5 'would definitely consider'). The results for items 4 and 5 were therefore reversed for the purpose of the analysis.

5.2.2 Dimensions of commitment scale (Section C)

Section C of the questionnaire was aimed at assessing the various dimensions of commitment as they pertain to tax compliance behaviour. Meyer and Herscovitch (2001) suggest that when investigators into commitment develop measures, they should specify the focal behaviour and target of interest. Consequently, although the questions were borrowed to a large extent from Meyer and Herschovitch's sample items for commitment scales, they were adapted to specify tax compliance behaviour. Some questions were also adapted from Braithwaite's (2002) study on motivational postures

as well as from that of the Gangl et al. (2015) study on committed motivation. A total of 15 statements were used in Section C.

A survey was considered an appropriate instrument for the present research. The authors interpreted results with care, mindful that self-reported beliefs, attitudes and behaviour are not necessarily the same as the actual beliefs, attitudes and behaviour, and that social desirability could play a role in self reporting.

5.3 Statistical analysis

Factor and reliability analyses were run for each scale using SPSS. In addition, Spearman's rank order correlation was used to determine the strength and direction of the relationship between the dimensions of commitment and tax compliance intention. The results are presented in Section 7 of this paper.

6. TOWARDS A MODEL OF COMMITMENT IN TAX COMPLIANCE

A systematic review of relevant literature on the topic of commitment was performed in order to define and extract useful constructs. A descriptive theory grounded in the literature was generated and then applied in a tax compliance context in order to present a model of taxpayer commitment. Conceptually, the starting point was the 2001 meta-analysis on commitment of Meyer and Herscovitch, and the subsequent three-component model of commitment developed by them.

In Meyer and Herscovitch's (2001) attempt to build a general model of commitment, they performed an in-depth review of previous research on the concept of commitment. Some of their propositions are well grounded in existing literature and others are more speculative. They recommend that any future developments in commitment theory be guided by the principle that commitment should have a core meaning regardless of the context in which it is studied.

Armstrong (2007) distinguishes between commitment and motivation in the organisational context as complementary processes that interlink and overlap. He remarks that commitment is a state of being, while motivation is more dynamic and is about doing what you want to do. He states that highly committed people may be motivated, but people who are motivated may not necessarily be committed and may be pursuing their own ends rather than that of their job or the organisation.

The three-component model of commitment (or TCM) advocated by Meyer and Herscovitch (2001) encapsulates three separate streams of earlier commitment research (Solinger, Van Olffen & Roe, 2008). Solinger et al. (2008) also point out that the common thread in commitment research is the notion that commitment is a

indicates that within the last decade, there has been increased use of the TCM measures outside North America. They do, however, concede that factor analyses from a number of studies of the scales used for the TCM measures still produce mixed results (Meyer et al., 2012).

In the sections below, a systematic process is followed to explain the concept of commitment. The concept is first described in terms of its definition, followed by the dimensions of commitment before the behavioural implications are addressed. The concept of commitment is then applied in the context of tax compliance behaviour by linking previous research on factors of tax compliance to each dimension of commitment.

6.1 What is commitment?

Meyer and Herscovitch (2001, p. 301) define commitment as 'a force that binds an individual to a course of action of relevance to one or more targets'. They suggest, after reviewing a large number of definitions from the literature, that all of the definitions in general make reference to the fact that commitment is 1) a stabilising or obliging force, and 2) that it gives direction to behaviour. Meyer and Allen (1991) reason that as the concept of commitment is expanded to include desire, need and obligation to remain, it no longer meets the definition of an attitude but can rather be desbribed as a psychological state. As stated earlier in Section 1, Meyer and Herscovitch (2001) are of the opinion that commitment can be clearly distinguished from related constructs such as motives and attitudes, and can influence behaviour even in the absence of extrinsic motivation or positive attitudes. Accordingly, Cialdini (2006) proposes that people have a deep desire to be consistent, thus, once they are committed to something, they are more inclined to go through with it.

The 'binding force' mentioned in the definition is experienced as a mind-set and different mind-sets typify different dimensions of commitment. Meyer and Herscovitch (2001) examine different models of commitment concluding that three distinguishable themes emerge to characterise the distinguishable mind-sets, namely: a *desire* to follow a course of action; a *perceived cost* of failing to do so; and a *perceived obligation* to pursue a course of action.

6.2 Committed to what?

From the above paragraphs, it is clear that commitment has a target to which one becomes committed. Meyer and Herscovitch (2001) observe that a potential point of confusion in the commitment literature stems from whether people commit to a course of action or an entity. Based on a review of the literature they conclude that individuals can commit to both entities and behaviours. Two suggestions on the target of commitment are presented: 1) when commitment is directed at an entity the behavioural consequences are often implied, and 2) when commitment is considered to be directed at a course of action, the entity to which that behavio4J19.2568 0 TDuit

Braithwaite (2002) associates commitment (as a motivational posture in tax compliance) with an obligation towards the country and the interest of the collective. Statements considered by Braithwaite (2002) to be good indicators of the posture of commitment are, among others:

1. Paying tax is a responsibility that should be willingly accepted by all taxpayers.
2. Paying my tax ultimately advantages everyone.
3. I think of tax paying as helping the government do worthwhile things.

It would thus appear that the target of commitment in a tax compliance context (according to Braithwaite's motivational posture of commitment) is the country and its citizens.

6.3 Dimensions of commitment

Meyer and Herscovitch (2001) admit that there is some disagreement in the literature on the dimensionality of organisational commitment. However, their analysis of a number of multidimensional frameworks also reveals some important similarities of which the most important one is that different mind-sets are presumed to characterise different dimensions of commitment. For the purposes of their general model of commitment, Meyer and Herschovitch (2001) label the dimensions of commitment with its accompanying mindsets as:

1. affective commitment, accompanied by a mindset of desire;
2. continuance commitment, accompanied by a mindset of perceived cost; and
3. normative commitment accompanied by a mindset of obligation.

Meyer and Allen (1991) state that these dimensions are not mutually exclusive, but that an individual may rather experience all three forms in varying degrees. Further, Meyer and Herscovitch (2001) propose that the strength of the different mind-sets can be measured and, together, can reflect an individual's commitment profile.

Solinger et al. (2008) make a case for the redundancy of the normative dimension of commitment based on findings from different studies that suggest it is difficult to empirically separate normative commitment from affective commitment. However, due to the exploratory nature of the present research in a tax compliance context, empirical proof of all three dimensions will be explored.

The three dimensions are explained and described below using their origins from the organisational behaviour literature and then discussed and applied in a tax compliance context.

6.3.1 Affective commitment

Meyer and Herscovitch (2001, p. 308) explain the affective dimension as 'the recognition that there is an important purpose in what one is doing'. The mind-set characterising affective commitment is desire. This means that 'individuals with strong affective (also referred to as moral or value) commitment *want* to pursue a course of action'. Factors that could impact such a mind-set of desire include involvement, shared values and identification. Meyer and Allen (1991) find that Kelman's (1958) taxonomy

of the bases for attitude change are of great relevance to affective commitment, especially the categories of 'identification' and 'internalisation'. 'Identification involves the acceptance of influence in order to maintain a satisfying relationship; internalisation involves acceptance of influence based on shared values' (Meyer & Allen, 1991, p. 75). In other words, 'identification' means individuals are willing to exert effort because of the benefits they derive from the relationship and 'internalisation' means individuals work towards a goal because in doing so they are behaving in a manner consistent with their own values.

In the human resource management context, commitment is about identifying with the goals and values of the organisation (Armstrong, 2007). Everest-Phillips (2008, p. 150) proposes that these goals can be translated as 'long-term state-building' which he describes as 'the process by which states enhance their ability to deliver essential public services, economic growth, political stability, and perceived legitimacy'. In a tax compliance context, it can thus be argued that the target or focus of commitment to tax compliance is the country and its perceived goals.

Based on the above descriptions, it appears that there are two distinct elements in the affective dimension of commitment: 1) there is recognition of a purpose (wanting to make a difference, identification and desire to be involved), and 2) there is a strong internal moral compass (acting consistently with one's own values).

These elements of affective commitment appear to have application in a tax compliance behaviour context. Braithwaite's (2002) description of commitment (that taxpayers with this motivational posture willingly accepts that paying taxes is a moral obligation and is in the interest of the collective) reflects the dimension of affective commitment. This sentiment of 'contributing to the common good' as an indicator of voluntary compliance, is also shared by Wahl, Kastlunger and Kirchler (2010); Wenzel (2007); Pickhardt and Prinz (2014); and Feld and Frey (2006), who all indicate its importance for the psychological contract. Torgler (2003) further suggests that altruism and a sense of integrity positively influence tax morale. It can thus be said that taxpayers' recognition of a *purpose* in paying taxes is that of recognising it as 'contributing to the common good'.

This recognition of a purpose relates to individuals' involvement in, and identification with, their country. MacGregor and Wilkinsons' (2012) finding that patriotic individuals are significantly more positive about paying taxes to support their country and are more likely to believe in the progressivity of the tax system than non-patriotic individuals, confirm these factors from a tax compliance perspective. They also find strong evidence that patriotic taxpayers perceive tax evasion (tax cheating) to be unpatriotic. It is suggested that the factors of involvement, shared values and identification mentioned above are reflected in the concept of 'patriotism' as used by Macgregor and Wilkinson.[4] Additionally, Alm and Torgler (2006), and Torgler and Schneider (2007) find evidence that 'national pride' is positively related to tax morale. Experimental evidence from Gangl, Torgler and Kirchler (2015) also suggests that

[4] Patriotism is often perceived among the general populace as a love of, and devotion to, one's country, but it can take many forms. One specific form of patriotism that has been well established in the literature is economic patriotism, which is described as the coordinated behaviour of consumers and businesses to make decisions to benefit their national economy (Clift, 2009, as cited by MacGregor & Wilkinson, 2012, p. 161).

patriotism (defined as positive identification and feelings of affective attachment to one's country) seems to increase tax-compliance intention.

Hornik et al. (1995) explain that a psychological attachment to a cause results from internalising and identifying with the goals and values of the cause, and state that it acts as an internal facilitator to commit to the desired behaviour. People feel committed when they are proud of and can identify with their organisation. From a tax compliance perspective, Wenzel (2007) finds that taxpayers who exhibit strong group identification and identify themselves with their nation as a whole indicate more positive tax ethics

a tax administration makes use of third-party reported income (as opposed to self-reported income).

Based on the above discussion, it would appear that continuance commitment could be proposed as a dimension of commitment in a tax compliance context and that cost of non-compliance and limited opportunities for non-compliance could be the drivers of the mind-set of 'you have no choice but to be compliant'.

6.3.3 Normative commitment

Meyer and Herscovitch (2001, p. 316) explain that normative commitment is 'characterised by the mind-set that one has an *obligation* to pursue a course of action'. They report two conditions which may cultivate this type of commitment: 1) an individual has internalised a set of norms concerning appropriate conduct; and 2) the individual receives benefits and experiences a need to reciprocate.

Opp (2013) clarifies the term 'internalised norms' by stating that it means 'the goal to follow a norm for its own sake'. It is thus of intrinsic value and does not consider external consequences. In other words, it relates to duty and obligation, and is synonymous with morality. Tyler (2006) argues that everyday compliance with the law is internalised as a social value by individuals when they experience procedurally just actions by authorities. Olsen (2015) reports on a survey which found that 86% of US taxpayers agree that it is 'not at all acceptable to cheat on income taxes' — thus illustrating a strong personal sense of integrity and obligation to obey the law. The distinction between affective and normative commitment in this respect is somewhat cloudy and appears to be lying in the mind-set of a desire to do the right thing versus a mind-set of having an obligation to do the right thing.

'The need to reciprocate' reminds us strongly of the psychological contract mentioned earlier in Section 4.1. The World Bank Report also indicates that peoples' social tendencies urge them to value reciprocity and fairness, and cause an inclination to develop and adhere to common understandings and rules of behavior, whether or not they benefit from them individually or collectively (World Bank, 2015). McDonald and Makin (2000, p. 86) hold that this reciprocal obligation is based on 'social exchange theory' which suggests that 'a person receiving a benefit is under a strong normative (i.e. rule governed) obligation to repay it in some way'. Research by Feld and Frey (2007) confirms the psychological contract as a factor shaping taxpayers' willingness to comply (based on shared expectations and mutual trust between taxpayers and authorities). It can thus be argued that the dimension of normative commitment may be discernible in a tax compliance context as the acceptance of the obligation based on an internalised norm of compliance as an obligation and the need to reciprocate.

Table 1 below synthesises the discussion presented in Section 6 by summarising the underlying drivers of each mind-set to the different dimensions of commitment. In the last column in Table 1 the complementary factors of tax compliance as collected from earlier research are linked to the different dimensions of commitment.

compliant taxpayers. Is it a safe, prosperous country? Is it a country without corruption, or a country with equal opportunities for all?

6.5 A model of commitment for understanding tax compliance behaviour

As suggested earlier in Section 4.1, a *mental model of commitment* can exist which shapes taxpayers' willingness to be compliant. It has been proposed throughout the present paper that other factors of tax compliance that were, and still are, the focus of many studies on tax compliance behaviour, complement and contribute to the various dimensions and mind-sets of commitment. The suggested commitment model provides an additional tool to those that already exist in the literature to use in approaching and understanding tax compliance behaviour. It therefore adds to a horizontal widening of tax compliance literature and provides scholars with new avenues for research.

The model is illustrated in Figure 1 below. Note that commitment is presented as the primary factor persuading the willingness to comply, whereas other factors are secondary in that they influence the various dimensions. Although the model is largely based on the general model of workplace commitment proposed by Meyer and Herscovitch (2001), it is revised to have application in a tax compliance context.

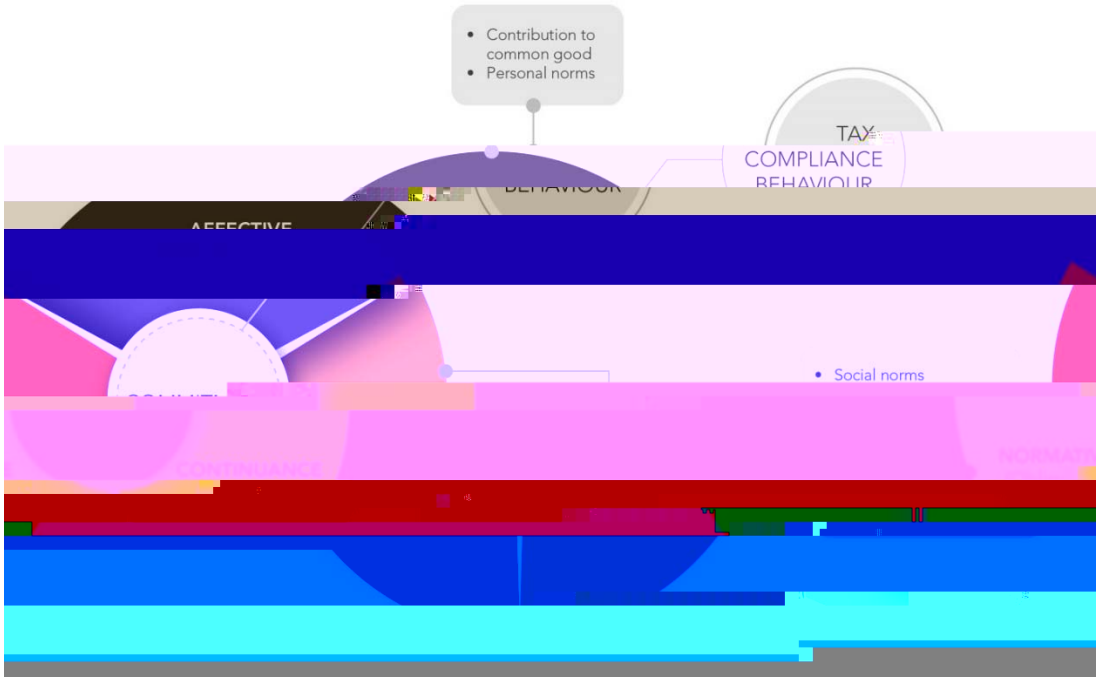

Figure 1: A model of commitment in the context of tax compliance behaviour

(Source: Authors' own design based on Meyer and Herscovitch (2001, p. 317))

7. RESULTS AND DISCUSSION OF THE EMPIRICAL ASSESSMENT OF THE MODEL

The empirical results presented in this section firstly relate to determining whether the tax compliance intention of the population surveyed results in a two-factor solution, namely administrative and technical compliance. Thereafter, it will be determined whether individuals identify with these three proposed dimensions of commitment within a tax compliance context. Further, the correlation and significance of the correlation between each dimension and the individual's willingness to comply will be analysed. The finding reported by Meyer and Herscovitch (2001), namely that affective commitment correlates more strongly with behavioural outcomes than continuance and normative commitment, will also be examined to see if it holds true for tax compliant behaviour.

7.1 Results for the tax compliance intention scale

The five items of the tax compliance intention scale were subject to principal components analysis after the data was found suitable for factor analysis supported by the Kaiser Meyer Oklin value at .632 (exceeding the recommended value of .6 (Pallant, 2007)) and the Bartlett's test of

Table 3: Pattern and structure matrix for commitment scale

	Pattern matrix		**Structure matrix**	
	Component		Component	
	Affective/ normative	Continuance	Affective/ normative	Continuance
C18 When I pay taxes I do so because my taxes fund important government services.	.771		.770	
C15 When I pay taxes, I really want to do so because it is the right thing to do.	.757		.754	
C19 When I pay taxes, I do so, because it is an important civic duty.	.739		.758	
C12 I think of tax paying as helping the government to do worthwhile things.	.727		.737	
C21 When I pay my taxes I do so because I receive benefits and experience a need to reciprocate.	.717		.715	
C13 Overall, I pay my tax with good will.	.699		.704	
C14 I resent paying tax.	–.645		–.601	
C17 Paying tax is a responsibility that should be willingly accepted by all South Africans.	.610		.614	
C11 When I pay taxes, I do so because it is ultimately in everyone's interest.	.576		.582	
C20 When I pay taxes, I do so because I feel a moral obligation to pay taxes.	.502		.541	
C16 It is important to me to act in a tax compliant manner.	.372	.366	.453	.448
C24 I can't risk putting in less than the required effort to be tax compliant.		.708		.730
C25 I have a lot to lose if I am not tax compliant.		.669	.303	.703
C23 I feel as if I have little choice but to be tax compliant.	–.349	.647		.570
C22 It could be costly for me if I don't pay my taxes.		.618	.308	.656

Following the inconsistency of item 16, it was decided to remove the item and conduct a new principal component analysis. Factor extraction resulted in only two underlying factors with eigenvalues exceeding 1 which explained 36.20% and 12.09% of the variance in the data set. The pattern and structure matrix revealed two factors or dimensions in the data set after Oblimin rotation with factor loadings exceeding .50. Statements 11–20 (excluding 16) represent a single dimension of commitment (which will collectively be named the 'affective dimension') and statements 21–25 respresent the 'continuance dimension' of commitment. Although statement 23 and 25 show crossloadings, the loadings on the continuance scale are significantly higher (loadings for all three statements exceed .60 on the continuance scale and are below .32 on the affective scale).

The theory on the possible dimensionality of commitment in a tax compliance context reviewed in the present research, suggests the existence of three dimensions (affective, normative and continuance). However, Solinger et al. (2008) provide evidence of inconsistencies in empirical research, suggesting that it is difficult to separate normative commitment from affective commitment empirically. This has led earlier researchers to regard the normative dimension as redundant and raises the question about whether the affective and normative dimension are worth being explored as two distinct dimensions in a tax compliance context.

Solinger et al. (2008) are of the opinion that although Meyer and colleagues revised and improved the instruments used for measuring continuance and normative commitment, the underlying problem with these components is conceptual rather than empirical in nature.

It thus appears that a two-dimensional commitment model representing an affective and a continuance dimension best fit the data, not a three-dimensional model. Although a three-dimensional model is imaginable, in line with evidence presented by Solinger et al. (2008), the present study could not empirically distinguish between the normative and affective dimension of the data. Solinger et al. (2008) thus maintain, based on evidence from a number of studies, that the affective component represents the most reliable and strongly confirmed dimension of organisational commitment.

7.2 Correlation analysis

7.2.1 Relationship of dimensions of commitment to tax compliance intentions

Similar to Braithwaite's (2002) assumption that the different qualities of taxpayers' motivations are related to different types of tax compliance, the present study aims to determine the correlation between the identified dimensions of commitment and the tax compliance intentions. The results of the correlation analysis are presented in Table 4.

Table 4: Spearman's rank order correlation between the tax compliance intention factors and the dimensions of commitment

	1	2	3	4
1. Administrative compliance	—	.331**	.278**	.255**
2. Technical compliance		—	.273**	.143*
3. Affective commitment			—	.319**
4. Continuance commitment				—

** $\rho < .01$ (2-tailed)
* $\rho < .05$ (2-tailed)

Although there are only moderate to weak correlations between the dimensions of commitment and the tax compliance intentions, the relationships are in the direction as expected. In other words, the higher the commitment to being tax compliant, the more positive the intention to comply will be. As the theory on commitment in an organisational behaviour context suggests, the relationship between continuance commitment and tax compliant intention is slightly lower than that of the affective dimension. It could thus be postulated that it is desirable for tax authorities to foster affective commitment and to determine what taxpayers' target of commitment is.

8. CONCLUSION

The present paper has explored the possibility of using a model of commitment to analyse tax compliant behaviour. Taxpayers may hold this as a mental model, in other words, a common perspective on making sense of their tax compliance decision and understanding themselves, thus thinking with a 'commitment model' in the decision to be tax compliant or not.

Based on the general model of commitment proposed by Meyer and Herscovitch (2001), a model specific to tax compliance behaviour was developed. The affective, continuance and normative dimensions appear to be theoretically valid in a tax compliance context although the empirical results could not confirm the existence of the normative dimension. A model indicating the dimensions, their underlying mind-sets and drivers is illustrated with Figure 1 (see Section 6.5), but further research is needed to determine whether all three dimensions can be detected in taxpayers' compliance decisions. The drivers proposed in the model are derived from previous theoretical and empirical findings in the tax compliance literature and were included to support the various mind-sets.

Statistical analysis confirmed a positive (although weak) correlation between taxpayer commitments and their tax compliance intention. In line with Meyer and Herscovitch's (2001) findings, the affective dimension seems to have a slightly stronger correlation than the continuance dimension (since the normative dimension could not be differentiated, no correlation analysis was performed for it). It is therefore suggested that tax authorities should foster affective commitment and help taxpayers see how being tax compliant is relevant to the goals of their country.

8.1 Implications of the model

The proposed model of commitment for tax compliance behaviour has implications for further research and could also be a useful tool for tax authorities and researchers to analyse and understand taxpayers' willingness to comply with tax legislation. Further research could be done to validate the two- or three-dimensionality of the proposed model and to refine the scale for measuring the different dimensions. The drivers (or factors of tax compliance) underpinning the various mind-sets could also be extended to create a more complete model. In addition, the influence of demographical factors

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