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Testing the Theory of Planned Behavior in the Field of Tax Compliance Among Students from Vocational Business Colleges

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Abstract

To gain deeper understanding on how tax compliance decisions are made, it is important to study potential influence factors like knowledge, attitudes and social norms. A theory to explain the relationship between attitudes and behavior is the theory of planned behavior. In this study, this theory is tested in the field of tax compliance among vocational business students. 688 vocational business students aged between 16 and 22 took part in a questionnaire study. The emphasis was on voluntary compliance, tax avoidance and tax evasion and factors influencing the behavioral intentions. A regression analysis was conducted to test the theory. The analysis shows that attitudes and subjective norms have high explanatory power for tax compliance intentions in all three subject areas. Perceived behavioral control is only relevant for the category of tax avoidance. Overall findings suggest that the theory of planned behavior as well as the theory of reasoned action are suitable to explain behavioral intentions in the field of tax compliance among vocational students. In vocational business colleges education should focus on promoting positive attitudes towards taxes and knowledge of the importance of taxes rather than only focusing on developing competences in the field of tax avoidance.

Keywords

tax compliance, theory of planned behavior, attitudes, behavioral intentions, vocational students

1 Introduction

Taxes are important for maintaining a healthy society. Nevertheless, tax evasion is a common phenomenon that is passed on from one generation to another (Frimmel et al., 2017, p. 1843). Consequently, it is vital to get a deeper understanding of the factors that influence tax compliance decisions of young people.

In order to explain the predictive power of attitude for behavior, the theory of planned behavior (Ajzen, 1991) has widely been used in several fields ranging from health-related behavior to economic decision making. This theory, which is based on the theory of reasoned action (Fishbein & Ajzen, 2010), argues that intentions to act are influenced by specific attitudes, subjective norms and the perceived control over the behavior (Ajzen, 2001, pp. 43–44).

Several studies in the field of tax research are based on the theory of planned behavior. Not all studies, however, include all the relevant aspects. Some studies do not include the perceived behavioral control (Benk et al., 2011; Hai & See, 2011; Nurwanah et al., 2018) while others only focus on the effect of norms (Bobek et al., 2007, 2013). For those who do include all relevant factors, the findings concerning the influence of perceived behavioral control are ambiguous (Bobek & Hatfield, 2003; Damayanti, 2012; Damayanti et al., 2015; Langham, et al.,



2012; Trivedi et al., 2005). Perceived behavioral control is not always a predictor for compliance intentions. The reason might be that entrepreneurs not conduct their tax return themselves but rather use the service of tax consultants. Furthermore, tax compliance or non-compliance might not always be a rational decision only and, therefore, not always depend on one's own ability.

The effects for attitudes and norms on tax compliance intentions are found in several studies. General attitudes toward the tax system, however, are not able to influence the tax compliance decision (Benk et al., 2011). Norms need to be personal and subjective rather than injunctive or descriptive to provide relevant explanatory power for behavioral intentions (Bobek et al., 2007, 2013).

Most studies conceptualize tax compliance as a single factor. Tax compliance behavior is, however, more complex and can be further differentiated into behaviors like voluntary compliance, tax avoidance and tax evasion (Kirchler & Wahl, 2010).

In this paper the results of testing the theory of planned behavior on different tax compliance behaviors is presented. Students in the fourth grade of business colleges were chosen as the sample, since they have already gained experience with taxes (as employees, when voting for political parties, as consumers) and have been taught basic knowledge of taxes in school (Bundesministerium für Bildung, 2014). Consequently, the goal of this study is to gain a deeper understanding of the influence factors on behavioral intentions in the field of tax compliance of this target group in order to derive input for tax education in vocational business colleges in Austria.

For a deeper insight, the study follows Kircher and Wahl's (2010) differentiation of tax compliance into voluntary tax compliance, tax avoidance and tax evasion. The focus of the analysis presented in this paper is on tax compliance attitudes, social norms, perceived behavioral control as well as behavioral intentions. Thus, the following hypothesis are tested:

- Hypothesis 1: Attitudes significantly positive influence behavioral intentions.
- Hypothesis 2: Social norms significantly positive influence behavioral intentions.
- Hypothesis 3: Perceived behavioral control significantly positive influence behavioral intentions.

In addition, the effects of knowledge and sociodemographic factors on tax compliance intentions are also under investigation.

2 Method

The sample of this study consists of 688 students from business colleges in Austria. Therefore, 17 schools were visited in 2018. The students aged from 16 to 22 filled the paper and pencil survey during their time in class. They were supervised and instructed by a researcher.

The items on measuring tax compliance attitudes, behavioral intentions, subjective norms and perceived behavioral control were developed or adapted in accordance with the document constructing a theory of planned behavior questionnaire (Ajzen, 2013). The items on tax compliance attitudes, behavioral intentions and subjective norms are based on a questionnaire measuring behavioral intentions in the field of tax compliance, the TAX-I: tax compliance inventory (Kirchler & Wahl, 2010). They had to be modified to fit the target group, since their initial target group was self-employed people. The TAX-I: tax compliance inventory (Kirchler & Wahl, 2010) differentiates three different behavioral intentions in the field of tax compliance, being tax compliance, tax avoidance and tax evasion. Tax compliance can be further differentiated according to the underlying motivation into voluntary compliance and enforced tax compliance. Since, enforced tax compliance is more targeted towards measuring an underlying motive and not an actual behavior, it is not included in the analysis presented in this paper.

3 Results

The tables presented in the following subchapters show the results from multiple linear regression models. Thus, attitude, subjective norms and perceived behavioral control were regressed on the behavioral intentions. Additionally, further covariates were included that have been proven relevant in previous studies in the fields of economic literacy and tax literacy (knowledge, interest, gender, language, country of birth, education of parents, grades in German or accounting). Before conducting the analysis, categorical variables with more than two categories were recoded into dummy variables. Further relevant covariates are described in the text in the following subchapters.

3.1 Voluntary compliance

The results of multiple regression on voluntary tax compliance presented in Table 1 show that the independent variables account a considerable share ($R^2 = 52.1\%$) of the variance among the behavioral intentions concerning voluntary compliance. Whereas attitude and subjective norms were found to be highly significant predictors, perceived behavioral control did not show a significant effect.

In the extended model the variance explained increases slightly to 54.7%. The gender as well as the father's education were significant predictors. Being female is associated with a stronger tendency to voluntary compliance intentions than being male. Additionally, having a father with a higher education degree is associated with a weaker tendency to voluntary compliance intentions than having a lower educated father.

Table 1

Regressions on behavioral intentions concerning voluntary tax compliance

	Coefficient β	Standard Error
Constant	.381 ^{***}	.091
Attitude voluntary compliance	.423 ^{***}	.032
Subjective norm voluntary compliance	.394 ^{***}	.031
Perceived behavioral control	-.002	.022
R^2	.523	
Corrected R^2	.521	

Note. $N = 688$. * $p < .05$. ** $p < .01$. *** $p < .001$.

3.2 Tax avoidance

The model on tax avoidance explains only 19.6 % of the variance in the behavioral intentions concerning tax avoidance as shown in Table 2 below. All influence factors of the theory of planned behavior significantly contribute to the intentions to avoid taxes. Thus, students with a more positive attitude towards tax avoidance, who think that people important to them value tax avoidance positively and who show more confidence in their abilities concerning income tax evaluate themselves higher in their behavioral intentions concerning tax avoidance.

The second model could explain a slightly higher variance ($R^2 = 23.5\%$) of the intentions concerning tax avoidance. The factors knowledge and interest are positively related to tax avoidance intentions. Therefore, students with a higher tax knowledge score, a higher interest in tax-related issues evaluate tax avoidance intentions as more likely for them than students with a lower knowledge score or a lower interest. Furthermore, the grade in the subject German was found to be significantly related to avoidance intentions. In detail, students with a grade of 4 or 5 in the subject German evaluate avoidance intentions as less relevant for them in comparison to students with better grades.

Table 2
Regressions on behavioral intentions concerning tax avoidance

	Coefficient β	Standard Error
Constant	1.022***	.114
Attitude tax avoidance	.243***	.043
Subjective norm tax avoidance	.214***	.036
Perceived behavioral control	.138	.027
R ²	.196	
Corrected R ²	.193	

Note. $N = 688$. * $p < .05$. ** $p < .01$. *** $p < .001$.

3.3 Tax evasion

The model in the field of tax evasion as shown in Table 3 below predicts 51.7 % of the variance, which is a considerable share of the behavioral intentions concerning tax evasion. As predicted by the theory of planned behavior, attitude and subjective norms are relevant predictors for the intentions. Perceived behavioral control, however, is no significant predictor of tax evasion intentions. Thus, students who evaluate tax evasion as positive and think that people of importance to the do so too are more likely to show evasion intentions.

The extended model predicts slightly more of the variance in the intentions ($R^2=52.4\%$). Furthermore, two variables were found to be significantly related to tax evasion intentions. Being female leads to lower intentions to tax evasion as compared to being male and having a grade of 4 or 5 in the subject accounting as compared to a better grade again leads to lower intentions towards tax evasion.

Table 3
Regressions on behavioral intentions concerning tax evasion

	Coefficient β	Standard Error
Constant	.302***	.065
Attitude tax evasion	.432***	.033
Subjective norm tax evasion	.372***	.031
Perceived behavioral control	-.004	.026
R ²	.517	
Corrected R ²	.515	

Note. $N = 688$. * $p < .05$. ** $p < .01$. *** $p < .001$.

4 Conclusion

The model on voluntary compliance shows that attitude and subjective norms are significant predictors for tax compliance intentions. Perceived behavioral control does not show any significant effect. Therefore, the hypothesis one and two can be accepted while the hypothesis three cannot be accepted for all three scenarios (see Introduction). Furthermore, female students are more likely to voluntarily comply than male students and students with a father with higher education are less likely to voluntarily comply than students with a lower education of the father. One reason for this effect might be that fathers with higher education usually pay higher taxes and, therefore, have more opportunities to minimize their tax burden.

In the field of tax avoidance, attitude, subjective norms as well as perceived behavioral control are significant predictors for tax avoidance behavioral intentions. Consequently, the model supports all three hypotheses. In the extended model, knowledge and interest were also found to be significantly correlated with tax avoidance behavioral intentions.

The model on tax evasion indicates that attitude and subjective norms have significant impact on tax evasion intentions. No significant effect could be found for perceived behavioral

control. Again, male students approve lesser of the behavioral intentions towards tax evasion than female students.

The results are in line with previous findings in this field. As several studies found before perceived behavioral control is not always relevant in the field of tax compliance (Bobek & Hatfield, 2003; Langham et al., 2012; Trivedi et al., 2005). The relevance for tax avoidance can be explained by the situations that were described in the items measuring tax avoidance. The items were formulated in a very practical way. Knowledge seems a relevant factor for tax avoidance too. As also pointed out by Langham et al. (2012, p. 364) complexity and awareness of the rules also influences tax compliance behavior.

Summing up, the results of the study provide evidence for the theory of planned behavior in the field of tax compliance among students from business colleges in Austria. Furthermore, perceived behavioral control only an important predictor for tax avoidance, which is also supported by the fact that knowledge was significantly related to the tax avoidance intentions as well. Therefore, instruction in the field of taxes has to incorporate topics that go beyond knowledge on technical aspects of filing a tax return and minimizing taxes.

One limitation of the theory of planned behavior is that an intention does not always lead to a behavior. This limitation is relevant for this study since actual behavior was not measured and the students have not yet filed a real tax return themselves. Measuring the tax compliance through questionnaires is a common method, since the factors is shaped by personal perceptions, however, social desirability cannot be excluded entirely.

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Biographical notes

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