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Williams, C.C. and Bezeredi, S. (2018) An institutional theory of informal entrepreneurship: some lessons from FYR Macedonia. *Journal of Developmental Entrepreneurship*, 23 (3). 1850019. ISSN: 1084-9467

<https://doi.org/10.1142/S108494671850019X>

Electronic version of an article published as *Journal of Developmental Entrepreneurship*, Vol. 23, No. 03, 1850019 (2018) <https://doi.org/10.1142/S108494671850019X> © copyright World Scientific Publishing Company [<https://www.worldscientific.com/worldscinet/jde>]

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AN INSTITUTIONAL THEORY OF INFORMAL ENTREPRENEURSHIP: SOME LESSONS FROM FYR MACEDONIA

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Received August 2018
Revised September 2018

In recent years, a new institutionalist theory has emerged to explain the prevalence of informal sector entrepreneurship. This argues that formal institutional failures lead to the emergence of an asymmetry between the formal rules (laws and regulations) and the norms, values and beliefs of entrepreneurs regarding the acceptability of participating in the informal sector, which in turn leads to the prevalence of informal entrepreneurship. The aim of this paper is to evaluate this social actor approach by reporting evidence from 453 face-to-face interviews with a nationally representative sample of entrepreneurs in FYR Macedonia. This reveals not only a significant association between participation in the informal economy and the non-alignment of entrepreneurs' views with the formal rules, but specific formal institutional failings that are significantly associated with the acceptability of informal entrepreneurship, namely poor quality public services, a lack of tax fairness, corruption and instability in the formal institutions. The theoretical and policy implications are then discussed.

Keywords: Informal economy; entrepreneurship; tax morale; institutional theory; FYR Macedonia.

1. Introduction

To explain informal sector entrepreneurship, the dominant approach for some half a century has been to view entrepreneurs participating in the informal sector as rational economic actors who do so when the pay-off is greater than the expected cost of being caught and punished (Allingham and Sandmo, 1972). However, the recognition that many entrepreneurs do not participate in the informal sector even when the benefits outweigh the costs, has led to the emergence of a new social actor approach (Webb *et al.*, 2009, 2013; Williams, 2018; Williams *et al.*, 2017). Drawing inspiration from institutional theory (North, 1990), this social actor approach views informal sector entrepreneurship to be the result of entrepreneurs' lack of "vertical trust," measured by a non-alignment between their norms, values and beliefs regarding informality, and the laws and regulations of the formal institutions (Alm *et al.*, 2010, 2012; Cummings *et al.*, 2009; Kirchlner, 2007; Murphy, 2008;

Torgler, 2007, 2012; Williams and Horodnic, 2015a, b, 2016a, b). Therefore, the solution is to improve vertical trust. However, until now, most studies have discussed this lack of vertical trust in formal institutions in a generic manner. In this paper, the intention is to seek to identify the formal institutions in which there is a lack of trust and which institutional failings can be seen to lead to informal sector entrepreneurship.

This paper advances the emergent social actor approach in three ways. First, and empirically, we report a survey that reveals the strong positive association between participation in informal entrepreneurship and the lack of vertical trust, measured by the non-alignment of entrepreneurs' views with the formal rules. Second, we advance the theoretical basis of this new institutional theory by moving beyond the previously discussed lack of trust in formal institutions and identifying more precisely the formal institutions in which they lack vertical trust, and therefore, result in informal sector entrepreneurship. Third and finally, and from a policy viewpoint, we pinpoint some of the formal institutional failings that need to be resolved to reduce the prevalence of informal entrepreneurship.

To achieve this, section 2 reviews the previous literature on institutional theory to formulate hypotheses in relation to not only the association between institutional asymmetry and participation in informal entrepreneurship, but also the formal institutional failings that lead to this asymmetry. To test these, section 3 then reports the data used, namely the 2015 GREY survey of entrepreneurs in FYR Macedonia, involving 453 face-to-face interviews. Section 4 then reports the findings, while section 5 summarizes the theoretical and policy implications.

In this paper, informal sector entrepreneurship refers to starting up and/or owning and managing a business venture that does not register and/or declare some or all its sales to the authorities for tax, social insurance or labor law purposes, when it should do so (Ketchen *et al.*, 2014; Siqueira *et al.*, 2016; Williams *et al.*, 2017). Viewed through an institutional lens, formal entrepreneurship is an entrepreneurial endeavor that adheres to the formal laws and regulations. In contrast, informal entrepreneurship is an entrepreneurial endeavor that takes place outside of the formal laws and regulations but within the norms, values and beliefs held by citizens and entrepreneurs regarding what is right and acceptable (Godfrey, 2011; Kistruck *et al.*, 2015; Siqueira *et al.*, 2016; Webb *et al.*, 2009; Welter *et al.*, 2015), while criminal entrepreneurship occurs outside of both the formal rules of the game as well as the socially shared rules of what is acceptable.

2. Informal Entrepreneurship and Institutional Theory: Literature Review and Hypotheses Development

For nearly half a century, the rational economic actor approach proposed by Allingham and Sandmo (1972) has been dominant when explaining entrepreneurship in the informal sector. This asserts that entrepreneurs participate in the informal sector when the pay-off is greater than the expected cost of being caught and punished. Therefore, to tackle informal entrepreneurship, most governments focus on increasing the actual and/or perceived level of punishments and likelihood of detection (e.g., ILO, 2017; Williams, 2014, 2018;

Williams and Puts, 2017). However, the evidence of the effectiveness of this approach is less than conclusive. Although some find that increasing penalties and the probability of detection reduces participation in the informal sector (Feld and Frey, 2002; Mas'ud *et al.*, 2015; Mazzolini *et al.*, 2017), others find no significant association (Hartl *et al.*, 2015; Shaw *et al.*, 2008; Williams and Franic, 2015, 2016), and yet others find that increasing the actual and/or perceived deterrents leads to greater non-compliance (Hofmann *et al.*, 2017; Kaplanoglou and Rapano, 2015; Murphy, 2005, 2008; Murphy and Harris, 2007). Indeed, the most telling rebuttal of the rational economic actor approach is that many entrepreneurs do not participate in the informal sector even when the benefit/cost ratio suggests they should (Alm *et al.*, 2012; Kirchler, 2007; Murphy, 2008; Murphy and Harris, 2007; Williams and Krasniqi, 2017, 2018).

To explain this, a “social actor” approach has emerged, which views entrepreneurs as more likely to participate in the informal sector if they possess low tax morale, by which is meant a low intrinsic motivation to pay taxes (Alm *et al.*, 2012; Torgler, 2007a, 2012). In recent years, this theoretical perspective has drawn inspiration from institutional theory (North, 1990). Viewed through this lens, institutions are the rules of the game. All societies have not only formal institutions, which are laws and regulations that define the legal rules of the game, but also informal institutions, which are the “socially shared rules, usually unwritten, that are created, communicated and enforced outside of officially sanctioned channels” (Helmke and Levitsky, 2004). Therefore, tax morale describes the level of alignment of citizens’ views with the formal rules. As this gap or asymmetry widens, tax morale or vertical trust decreases and participation in the informal economy becomes more prevalent (Williams, 2018).

Lower levels of tax morale/vertical trust have been found to be associated with lower levels of tax compliance (Brink and Porcano, 2016; Dell’Anno, 2009; Kirchgässner, 2010; Lima and Zaklan, 2008; Lisi, 2015; Stark and Kirchler, 2017; Sumartaya and Hafidiah, 2014; Torgler, 2004a; Torgler and Schaffner, 2007; Torgler *et al.*, 2008), larger shadow economies (Halla, 2012; Torgler and Schneider, 2006, 2007a, b, 2009; Torgler *et al.*, 2007a, b), higher participation in the informal economy (Williams and Horodnic, 2015b, 2016a; Windebank and Horodnic, 2017) and higher participation in salary under-reporting (Williams and Horodnic, 2015a, c, d, e, 2016b, 2017a). Indeed, a strong negative correlation has been identified between the non-alignment of citizens views with the formal rules and participation in the informal economy with Pearson r values between $-.46$ and $-.66$ (Alm and Torgler, 2006; Torgler, 2011). For example, Torgler (2011) finds that in post-socialist societies, when there is a decrease of tax morale by one unit, there is an increase in the informal economy of twenty percentage points. Whether a similar strong correlation exists between the non-alignment of entrepreneurs’ views, the formal rules and participation in informal entrepreneurship can be here evaluated. Therefore, to evaluate this proposition, the following hypothesis can be tested:

Vertical trust hypothesis (H1): the greater is the non-alignment of entrepreneurs' views with the formal rules, the greater is the likelihood of entrepreneurs participating in the informal sector.

Therefore, what causes this non-alignment of entrepreneurs' views with the formal rules, regarding the acceptability of participating in the informal economy? When analyzing citizens, rather than entrepreneurs, a large number of studies have found that the level of vertical trust of citizens in government depends on the perceived quality of public services and the level of satisfaction with public services (Williams, 2018; Williams and Horodnic, 2017a). For example, the level of vertical trust is positively correlated with the perceived effectiveness of government spending (Alasfour *et al.*, 2016; Barone and Mocetti, 2011; Molero and Pujol, 2012; Sipos, 2015; Vythelingum *et al.*, 2017); therefore, the quality of public services and government (Williams, 2018; Williams and Martinez, 2017). To start to evaluate whether this is also the case when entrepreneurs are analyzed, the following hypothesis can be tested:

Public service quality hypothesis (H2): the lower is the level of satisfaction with the quality of public services, the greater is the likelihood of entrepreneurs not adhering to the formal rules.

It is also the case that citizens who do not perceive the tax system as fair or taxes to be appropriately used by government tend to possess lower levels of vertical trust (Alasfour *et al.*, 2016; Alm and Gomez, 2008; Çevik, 2016; Cummings *et al.*, 2005, 2009; Cyan *et al.*, 2016; Frey, 2003; Niesiołędzka, 2014; Torgler and Schaffner, 2007; Torgler *et al.*, 2008; Vythelingum *et al.*, 2017). For example, vertical trust is low if there are seen to be resource misallocations and inefficiencies because of state capture. This is the process whereby firms or groups of firms influence the formulation of laws and other government policies to their own advantage through illicit or non-transparent means (Fries *et al.*, 2003). The outcome is that they receive preferential treatment and state resources are diverted toward supporting them. For those who are not part of these elites who capture the resources of the state, the outcome is commonly overly burdensome taxes and relatively fewer public services in return for the taxes and social contributions they pay (De Soto, 1989; Siqueira *et al.*, 2016; Williams *et al.*, 2016). Therefore, in countries where state capture prevails, citizens have little trust in public authorities and their vertical trust is low because the obligation of paying the taxes does not represent an accepted social norm because the citizens feel cheated (Chan *et al.*, 2018; Saitta, 2017; Torgler, 2001; Torgler *et al.*, 2007b). To start to evaluate whether this is also the case when entrepreneurs are analyzed, the following hypothesis can be tested:

Tax fairness hypothesis (H3): the lower is the perception that taxes are appropriately used by government, the greater is the likelihood of entrepreneurs not adhering to the formal rules.

Besides resource misallocations and inefficiencies, the presence of institutional voids resulting from the lack of quality of public services and state capture, there are also resource misallocations and inefficiencies that result from the existence of public sector corruption (Khan and Quaddus, 2015; Round *et al.*, 2008; Tonoyan *et al.*, 2010). The most common type of public sector corruption is the ‘misuse of public office for private gain’ (Svensson, 2005). This is the practice whereby government officials demand or receive gifts, bribes and other payments (e.g., a portion of a given contract) from entrepreneurs and provide a service in return. This might include speeding up the granting of an operating license, not producing a negative outcome from a workplace inspection, or helping them avoid delays in some other regulatory process requiring the approval of public sector officials such as the granting of a construction permit. Such corruption not only leads to resource misallocations and inefficiencies, and acts as an additional tax formal entrepreneurs have to pay, but also arguably forces entrepreneurs into the informal sector to escape being subject to such extortion from public officials. To evaluate this, the following hypothesis can be tested:

Public sector corruption hypothesis (H4): the greater the perceived level of public corruption, the greater is the likelihood of entrepreneurs not adhering to the formal rules.

A final formal institutional failing considered here relates to the perceived and/or actual instability and uncertainty of the formal rules. Formal institutional instability and uncertainty results from continuous changes in the formal laws and regulations (Levitsky and Murillo, 2009; Williams and Shahid, 2016). This is especially the case in many transition economies where entrepreneurs and enterprises witness continuous changes in the formal rules, so much so that they do not expect rules that apply today to remain in force in the future. For example, citizens and entrepreneurs in such countries see little point in paying compulsory contributory payments for pensions or social contributions so they can claim unemployment benefits because they do not believe, when in the future they may wish to benefit, the same rules will apply. Therefore, this perceived lack of permanency of the formal rules is a major problem for governments in engendering adherence to the formal rules. A further related problem is that there is often a widespread perception that the formal rules that exist are not indigenous to the country and/or are being imposed from the outside, such as by supra-national institutions (see Williams *et al.*, 2013). In such situations, particularly when the laws and regulations are continuously changing, the outcome is that entrepreneurs and enterprises turn elsewhere for a more permanent set of values, norms and understandings. In these situations, populations and businesses turn to the informal institutions as a source of more permanent shared norms, values and beliefs in relation to what is acceptable and what is not to govern and structure their economic activities instead of relying on formal laws and regulations (London *et al.*, 2014; Mair *et*

al., 2012), which can be very fluid and temporary in nature. To start to evaluate this, the following hypothesis can be tested:

Instability of formal institutions hypothesis (H5): the greater is the perceived political instability, the greater is the likelihood of entrepreneurs not adhering to the formal rules.

3. Data and Variables

3.1. Data

To evaluate these hypotheses, data is reported from a representative survey of entrepreneurs conducted in 2015 in FYR Macedonia, a country where the informal economy is one of the largest in Europe (Medina and Schneider, 2018) and there is purported to be little alignment between entrepreneurs' views regarding the acceptability of participating in the informal economy and the formal rules (Ristovska, 2013). The sampling methodology ensured the samples are proportionate to the universe in the country with respect to firm size, region and sector. The owners or managers of a representative sample of 453 businesses were surveyed.

Given the sensitive topic, it was necessary to develop rapport with the interviewees. Therefore, the survey did not start with sensitive questions. Instead, the interview schedule started by asking them questions about their satisfaction with the business environment, followed by questions on the acceptability of some uncompliant behaviors; only then were questions asked regarding whether they consider they are affected by the existence of the businesses that use informal practices and their engagement in such practices. Analyzing the interviewees' responses regarding the perceived reliability of the interviews conducted, in 94 percent of cases, interviewees reported excellent or fair cooperation from the entrepreneurs. Cooperation was deemed bad, or the interviewer did not assess the perceived reliability of the interviews in only one percent of cases.

3.2. Variables

To evaluate the hypotheses, we use ordered logit regression analysis. The dependent variable is a categorical variable showing the level of vertical trust of entrepreneurs. To measure the non-alignment of entrepreneurs' values, norms and beliefs on the acceptability of informality ("civic morale") with the laws and regulations of the formal institutions ("state morality"), the following question was asked: *To what extent do you agree with the statements that underreporting annual revenue or turnover to evade taxes is acceptable.* This variable is measured on a 10-point Likert scale where 1 means completely disagree and 10 means completely agree. In this paper, the 10-point scale has been recoded into a four-point scale (Torgler, 2004; Torgler and Schneider, 2009): value 1 = low tax morale (responses from 4 through 10); value 2 = middle lower tax morale (response 3); value 3 = middle upper tax morale (response 2); and value 4=high tax morale (response 1 "completely disagree").

Meanwhile, the key independent variables used to evaluate each hypothesis, are the following:

- *Participation in informal sector*: a categorical variable showing how often employers hire an employee on a contract with “hidden clauses, that is, social insurance and tax contributions are paid based on (for example) the minimum wage, while the rest of the pay is paid undeclared, without a payslip”: 1 = never, 2 = sometimes, 3 = in most cases, 4 = always.
- *Satisfaction with the quality of public services*: A categorical variable describing respondent’s satisfaction with the quality of public services, related to the business activities in her/his country: value 1= very unsatisfied, value 2= unsatisfied, value 3= neither satisfied nor unsatisfied, value 4= satisfied, value 5= very satisfied.
- *Taxes are appropriately used by the government*: A categorical variable recorded using the following survey question: To what extent do you agree with the statements that taxes are appropriately used by the government." This variable is measured on a 10-point Likert scale where 1 means completely disagree and 10 means completely agree.
- *Corruption as an obstacle to the current operations of the companies*. A categorical variable recorded using the following survey question: To what degree is corruption an obstacle to the current operations of the companies: value 1=very severe obstacle, value 2=major obstacle, value 3=moderate obstacle, value 4=minor obstacle, value 5=no obstacle.
- *Political instability as an obstacle to the current operations of the companies*. A categorical variable recorded using the following survey question: To what degree is political instability an obstacle to the current operations of the companies: value 1=very severe obstacle, value 2=major obstacle, value 3=moderate obstacle, value 4=minor obstacle, value 5=no obstacle.

A series of firm-level variables derived from previous studies analyzing the likelihood of participation in the informal economy (Ali and Najman, 2018; Hudson *et al.*, 2012; Putniņš and Sauka, 2017; Putniņš *et al.*, 2018; Williams and Horodnic, 2017a,b) are used as control variables as detailed below:

- *Sector*: A categorical variable describing the main activity of the company: 1 = agriculture, 2 = hotels and restaurants, 3 = services, 4 = construction, 5 = transport and communications, 6 = trade, 7 = retail, 8 = industry, 9 = health, 10 = other.
- *Number of employees*: A categorical variable describing the total number of currently employed people in the observed company (excluding owners and partners): 1 = sole proprietor’s and micro (0-9 employees), 2 = small (10-49 employees), 3 = medium and large (50+ employees).
- *Legal Status*: A categorical variable describing the legal status of observed company: 1 = sole proprietorship, 2 = private limited company, limited by shares (LTD.), 3 = public Ltd Company (PLC), 4 = other.
- *Age business*: A categorical variable showing how many years has the observed company been trading (this includes under all ownerships and all legal statuses): 1 = less than 5 years, 2 = 6-10 years, 3 = 11-20 years, 4 = more than 20 years.
- *Business locality*: A categorical variable describing in what kind of locality does the observed company carry out its main activity: 1 = the capital, 2 = big city (regional center),

3 = small town, 4 = village or rural area, 5 = the entire country, 6 = both inside the country and outside the country, or outside the country only.

- *Vat registered*: A dummy variable describing whether the respondent's company is VAT registered: 0 = no, 1 = yes.

For the descriptive analysis, we report the crude data for each variable to provide an accurate description and to minimize the bias that one would encounter by excluding those entrepreneurs who did not provide responses to all the variables in the analysis but provided responses for some questions. On the other hand, only those respondents for which data on each variable was available for each model were analyzed in the regression analysis because of the technical requirements of this type of analysis. Answers of "don't know" and "refusal" have been eliminated in all estimations. Accordingly, an ordered logit model without multiple imputations was developed.

4. Results

Table 1 presents the descriptive results of the alignment of entrepreneurs' views with the formal rules in FYR Macedonia on the unacceptability of informality. This reveals that overall 31.9 percent have a low level of alignment with the formal rules on the unacceptability of informality, and strongly agree that it is acceptable to underreport annual revenue or turnover to evade taxes, 7.4 percent lower middle alignment with state morale, 6.5 percent upper middle alignment with state morale and 54.3 percent have a high alignment with state morale, completely disagreeing that it is acceptable to underreport annual revenue or turnover to evade taxes. However, the level of alignment of entrepreneurs with the formal rules varies across various firm-level characteristics.

Starting with whether entrepreneurs participate in informal practices, the finding is that there appears to be an association between those highly aligned with state morale and their level of participation in informal practices. 43.6 percent of those who, in most cases or always, use informal practices strongly agree that it is acceptable to underreport annual revenue or turnover to evade taxes, but only 32.5 percent of those who sometimes use informal practices and just 26.5 percent of those who never use informal practices.

Moreover, the degree to which entrepreneurs align with state morale markedly varies across sectors. Those in agriculture, transport and communications, and construction have a high alignment with the formal rules, and those in the retail and trade sectors for example, have a lower alignment with state morale. Similarly, sole traders and micro-enterprises have a lower alignment with state morale than entrepreneurs operating small and medium-size businesses, as do sole proprietors compared with those entrepreneurs operating businesses with other forms of legal status. Furthermore, entrepreneurs operating younger enterprises appear to have a lower alignment with state morale than those operating older more established businesses, as do those operating businesses in the capital and larger urban areas. VAT registration appears to have no influence.

Table 1. Alignment of entrepreneurs with the formal rules on the unacceptability of informality in FYR Macedonia: by firm-level characteristics and views of formal institutions

% of survey respondents	Low alignment with state morale	Lower middle alignment with state morale	Upper middle alignment with state morale	High alignment with state morale
Total	31.9	7.4	6.5	54.3
Participation in informal practices				
Never	26.5	9.1	7.4	57.0
Sometimes	32.5	5.7	9.6	52.2
In most cases/ always	43.6	5.9	2.0	48.5
Sector				
Agriculture	5.6	0.0	0.0	94.4
Hotels and restaurants	45.2	6.5	12.9	35.5
Services	24.1	13.8	8.6	53.5
Construction	34.5	0.0	3.5	62.1
Transport and communications	11.9	7.1	4.8	76.2
Trade	40.8	10.5	9.2	39.5
Retail	32.1	6.2	3.7	58.0
Industry	42.6	9.3	5.6	42.6
Health	48.0	0.0	8.0	44.0
Other	10.5	5.3	5.3	79.0
Number of employees				
Sole traders and micro (0-9 employees)	34.0	7.4	6.4	52.3
Small (10-49 employees)	15.6	8.9	6.7	68.9
Medium and large (50+ employees)	27.3	0.0	9.1	63.6
Legal status				
Sole proprietorship	61.2	7.5	4.5	26.9
Private limited company, limited by shares	26.2	7.9	7.2	58.6
Public Ltd Company (PLC)	36.4	9.1	4.6	50.0
Other	4.8	0.0	9.5	85.7
Age of business				
Less than 5 years	38.6	1.2	3.6	56.6
6 - 10 years	39.5	10.1	4.7	45.7
11 - 20 years	26.1	8.5	9.2	56.3
More than 20 years	22.1	7.8	6.5	63.6
Business locality				
The capital	48.4	12.9	9.7	29.0
Big city (regional centre)	34.4	5.9	5.0	54.8
Small town	23.5	6.2	8.6	61.7
Village or rural area	33.3	0.0	25.0	41.7
The entire country	16.2	8.1	2.7	73.0
Both inside the country and outside the country, or outside the country only	15.0	15.0	0.0	70.0
Vat registered				
No	31.5	6.9	8.2	53.4
Yes	31.7	7.8	6.3	54.2
Satisfaction with the quality of public services				
Very unsatisfied	57.7	0.0	3.9	38.5
Unsatisfied	27.4	7.6	6.6	58.5
Neither satisfied nor unsatisfied	37.5	5.5	4.7	52.3
Satisfied	27.1	10.3	8.4	54.2
Very satisfied	22.2	11.1	0.0	66.7

Table 1 (continued). Alignment of entrepreneurs with the formal rules on the unacceptability of informality in FYR Macedonia: by firm-level characteristics and views of formal institutions

% of survey respondents	Low alignment with state morale	Lower middle alignment with state morale	Upper middle alignment with state morale	High alignment with state morale
Taxes appropriately used by government				
Completely disagree	39.1	2.9	1.5	56.5
2 and 3	41.4	6.9	3.5	48.3
4 and 5	39.5	7.8	8.5	44.2
6 and 7	28.8	12.1	10.6	48.5
8 and 9	23.5	8.8	5.9	61.8
Completely agree	16.1	0.0	0.0	83.9
Corruption an obstacle to current operations				
Very severe obstacle	58.1	3.2	6.5	32.3
Major obstacle	39.7	11.8	5.9	42.7
Moderate obstacle	33.3	8.0	13.3	45.3
Minor obstacle	35.6	6.8	6.8	50.9
No obstacle	23.0	6.2	3.4	67.4
Political instability obstacle to operations				
Very severe obstacle	41.9	6.5	9.7	41.9
Major obstacle	38.9	6.9	1.4	52.8
Moderate obstacle	51.8	7.2	9.6	31.3
Minor obstacle	25.5	14.6	5.5	54.6
No obstacle	20.6	5.6	7.2	66.7

Source: Authors' own work based on the GREY Survey in FYROM

However, there is a marked association between the satisfaction of entrepreneurs with the quality of public services and their level of alignment with state morale in terms of the unacceptability of informal practices. Some 57.7 percent of those very unsatisfied with the quality of public services have a low alignment with state morale on the unacceptability of informal practices compared with just 22.2 percent of those who are very satisfied with the quality of public services. Similarly, 39.1 percent of those who completely disagree that taxes are appropriately used by the government have a low alignment with state morale on informality, but only 16.1 percent of those who completely agree that taxes are appropriately used by the government. There also appears to be close association between perceptions of corruption and the alignment of entrepreneurs with state morale on the unacceptability of informality. Some 58.1 percent of those who perceive corruption as a very severe obstacle to the current operations of their business have a low alignment with state morale on informality, but only 23 percent of those who do not perceive corruption as an obstacle to the current operations of their business. And finally, 41.9 percent of those entrepreneurs who perceive political instability as a very severe obstacle to the current operations of their business have a low alignment with state morale on informality but only those 20.6 percent of those who do not perceive political instability as an obstacle.

However, these are descriptive statistics. They do not hold constant the other variables that may influence these correlations. To do so, Table 2 presents an ordered logit regression analysis. This adopts a staged approach. Model 1 considers solely the level of non-alignment of entrepreneurs across various firm-level variables. Model 2 then adds in the variable of participation in the informal economy to see if entrepreneurs' non-alignment

with the formal rules is associated with participation in the informal economy. To evaluate the various formal institutional determinants that lead to this non-alignment of entrepreneurs' views with the formal rules, model 3 then adds in the variable of their satisfaction with the quality of public services, model 4 their views on whether taxes are appropriately used by the government, model 5 their views on whether public sector corruption is an obstacle to the current operations of their business, and model 6 their views on whether political instability is an obstacle to the current operations of their business.

Starting with the level of non-alignment of entrepreneurs' views with the formal rules according to firm-level variables, model 1 in Table 2a reveals that the alignment with the formal rules is significantly lower for entrepreneurs working in hotels and restaurants than for entrepreneurs operating in the construction sector, but entrepreneurs' alignment with the formal rules is greater in the agriculture sector and transport and communications than for entrepreneurs operating in the construction sector. Interestingly, when other variables are held constant, there is no difference in entrepreneur's alignment with the formal rules by the number of employees employed (i.e., firm size). However, there are significant variations by the legal status of the business. Entrepreneurs who are sole proprietors are significantly less aligned with the formal rules than entrepreneurs operating private limited companies and public limited companies. So too are entrepreneurs operating businesses six to ten years old significantly less aligned to the formal rules than those operating younger business ventures (less than five years old), and those operating in the capital are significantly less aligned with the formal rules than those operating in small towns, as are those who are VAT registered significantly less aligned to the formal rules than those who are not.

Model 2 in Table 2a adds in the variable of participation in the informal economy. The first important finding is that the significance and direction of association remains the same on almost all the firm-level characteristics. The additional finding is that there is a significant association between the level of adherence to the formal rules and the likelihood of engaging in informal economic practices. Those entrepreneurs who are less aligned to the formal rules are significantly more likely to engage in informal economic activity (confirming hypothesis *H1*). Indeed, a one unit increase in the scale measuring participation in the informal sector worsens by 7.7 percentage points the proportion of entrepreneurs indicating the highest level of alignment with the formal rules.

Table 2a. Estimation results from the ordered logit regression

	Model 1		Model 2	
	Coefficient (Standard error)	Marginal effect	Coefficient (Standard error)	Marginal effect
Sector (RC: Construction)				
Agriculture	2.977 (1.195)**	0.418	2.730 (1.227)**	0.407
Hotels and restaurants	-1.060 (0.569)*	-0.202	-1.106 (0.619)*	-0.201
Services	0.304 (0.508)	0.061	0.448 (0.570)	0.087
Transport and communications	1.165 (0.593)**	0.219	1.244 (0.652)*	0.230
Trade	-0.106 (0.485)	-0.021	-0.002 (0.528)	0.000
Retail	0.448 (0.500)	0.089	0.251 (0.548)	0.049
Industry	-0.257 (0.522)	-0.052	-0.142 (0.578)	-0.028
Health	-17.021 (1117.371)	-0.468	-15.689 (604.351)	-0.449
Other	1.195 (0.837)	0.224	1.777 (1.014)*	0.308
Number of employees (RC: Sole traders and micro (0-9 employees))				
Small (10-49 employees)	0.486 (0.394)	0.091	0.168 (0.425)	0.031
Medium and large (50+ employees)	0.447 (0.796)	0.084	0.114 (0.817)	0.021
Legal status (RC: Sole proprietorship)				
Private limited company, limited by shares (LTD.)	1.669 (0.335)***	0.317	1.331 (0.351)***	0.251
Public Ltd Company (PLC)	0.808 (0.438)*	0.146	0.397 (0.482)	0.071
Other	20.596 (1117.371)	0.731	19.032 (604.352)	0.689
Operating period (RC: Less than 5 years)				
6 - 10 years	-0.748 (0.338)**	-0.141	-0.948 (0.359)***	-0.175
11 - 20 years	-0.268 (0.337)	-0.050	-0.417 (0.356)	-0.076
More than 20 years	-0.011 (0.377)	-0.002	-0.111 (0.410)	-0.020
Business locality (RC: Small town)				
The capital	-1.413 (0.430)***	-0.265	-1.865 (0.478)***	-0.335
Big city (regional centre)	-0.249 (0.295)	-0.047	-0.538 (0.321)*	-0.100
Village or rural area	-1.531 (0.791)*	-0.285	-1.806 (0.806)**	-0.326
The entire country	0.197 (0.483)	0.036	0.188 (0.542)	0.033
Both inside the country and outside the country, or outside the country only	-0.262 (0.594)	-0.050	-0.188 (0.693)	-0.034
Vat registered	-0.688 (0.307)**	-0.129	-0.519 (0.322)	-0.095
Participation in informal economy			-0.417 (0.166)***	-0.077
Number of observations	412		359	
Pseudo R2	0.152		0.164	
Prob > F	0.000		0.000	

Notes: (1) Dependent variable: Tax morale measured on a four-point scale (1=Low tax morale; 2=Mid low tax morale; 3=Mid high tax morale; 4=High tax morale)

(2) We report the marginal effects for the highest score of the tax morale index (4)

(3) Significance: *p<0.1, **p<0.05, ***p<0.01

Source: Authors' own work based on the GREY Survey in FYROM

To begin evaluating the various formal institutional determinants that lead to this non-alignment of entrepreneurs' views with the formal rules, model 3 in Table 2b adds in the variable of their satisfaction with the quality of public services. Again, the significance and direction of association remains the same on almost all the firm-level characteristics. The additional finding is that there is a significant association between the adherence of entrepreneurs' views to the formal rules and their perceptions of the quality of public services. The lower is the level of satisfaction with the quality of public services, the significantly greater is the likelihood of entrepreneurs not adhering to the formal rules

(confirming Hypothesis *H2*). An increase by one unit in satisfaction with the quality of public services improves by 4.2 percentage points the proportion of entrepreneurs indicating the highest level of alignment with the formal rules.

Meanwhile, model 4 adds in the variable of whether they view taxes as appropriately used by the government. Again, the significance and direction of association remains the same on near enough all the firm-level characteristics. The additional finding is that there is a significant association between the adherence of entrepreneurs' views to the formal rules and their perceptions of whether taxes are appropriately used by government. The lower is the perception that taxes are appropriately used by government, the significantly greater is the likelihood of entrepreneurs not adhering to the formal rules (confirming Hypothesis *H3*). An increase by one unit in the perception that taxes are appropriately used by government improves by 2.4 percentage points the proportion of entrepreneurs indicating the highest level of alignment with the formal rules.

Model 5 in Table 2c examines their views on whether public sector corruption is an obstacle to the current operations of their business and whether this is associated with their adherence to the formal rules regarding the unacceptability of informality. The finding is that the greater the perceived level of public corruption, the greater is the likelihood of entrepreneurs not adhering to the formal rules (confirming Hypothesis *H4*). A decrease by one unit in an entrepreneur's perception that corruption is an obstacle to their operations improves by 6.1 percentage points the proportion of entrepreneurs indicating the highest level of alignment with the formal rules.

Finally, model 6 in Table 2c explores whether perceived political instability is associated with entrepreneurs' views on adhering to the formal rules regarding the unacceptability of informality. The finding is that the greater is the perceived political instability, the greater is the likelihood of entrepreneurs not adhering to the formal rules (confirming Hypothesis *H5*). A decrease by one unit in the perception of entrepreneurs that political instability is an obstacle to their current operations improves by 3.9 percentage points the proportion of entrepreneurs indicating the highest level of alignment with the formal rules.

Table 2b. Estimation results from the ordered logit regression

	Model 3		Model 4	
	Coefficient (Standard error)	Margin al effect	Coefficient (Standard error)	Marginal effect
Sector (RC: Construction)				
Agriculture	2.968 (1.182)**	0.421	3.170 (1.208)***	0.462
Hotels and restaurants	-0.917 (0.580)	-0.174	-0.676 (0.602)	-0.121
Services	0.434 (0.524)	0.086	0.731 (0.550)	0.139
Transport and communications	1.246 (0.602)**	0.232	1.408 (0.638)**	0.258
Trade	-0.143 (0.502)	-0.029	0.081 (0.513)	0.015
Retail	0.442 (0.516)	0.087	0.659 (0.526)	0.125
Industry	-0.320 (0.542)	-0.063	-0.095 (0.572)	-0.018
Health	-15.408 (524.160)	-0.458	-15.873 (717.777)	-0.412
Other	1.292 (0.842)	0.239	1.616 (0.887)*	0.291
Number of employees (RC: Sole traders and micro (0-9 employees))				
Small (10-49 employees)	0.626 (0.403)	0.115	0.734 (0.422)*	0.130
Medium and large (50+ employees)	0.479 (0.800)	0.089	-0.040 (0.913)	-0.007
Legal status (RC: Sole proprietorship)				
Private limited company, limited by shares (LTD.)	1.675 (0.340)***	0.314	1.584 (0.352)***	0.289
Public Ltd Company (PLC)	0.786 (0.404)*	0.140	0.631 (0.469)	0.109
Other	18.924 (524.161)	0.731	19.505 (717.778)	0.714
Operating period (RC: Less than 5 years)				
6 - 10 years	-0.583 (0.346)*	-0.109	-0.671 (0.360)*	-0.121
11 - 20 years	-0.094 (0.345)	-0.017	-0.189 (0.355)	-0.034
More than 20 years	0.023 (0.385)	0.004	0.000 (0.399)	0.000
Business locality (RC: Small town)				
The capital	-1.572 (0.442)***	-0.288	-1.569 (0.468)***	-0.281
Big city (regional centre)	-0.285 (0.298)	-0.053	-0.401 (0.320)	-0.073
Village or rural area	-1.545 (0.805)*	-0.284	-1.486 (0.808)*	-0.267
The entire country	0.132 (0.490)	0.024	0.284 (0.538)	0.049
Both inside the country and outside the country, or outside the country only	-0.312 (0.600)	-0.058	0.140 (0.699)	0.025
Vat registered	-0.700 (0.314)**	-0.130	-1.022 (0.338)***	-0.183
Satisfaction with the quality of public services	0.227** (0.120)	0.042		
Taxes are appropriately used by the government			0.132 (0.046)***	0.024
Number of observations	404		371	
Pseudo R2	0.158		0.178	
Prob > F	0.000		0.000	

Notes: (1) Dependent variable: Tax morale measured on a four-point scale (1=Low tax morale; 2=Mid low tax morale; 3=Mid high tax morale; 4=High tax morale)

(2) We report the marginal effects for the highest score of the tax morale index (4)

(3) Significance: *p<0.1, **p<0.05, ***p<0.01

Source: Authors' own work based on the GREY Survey in FYROM

Table 2c. Estimation results from the ordered logit regression

	Model 5		Model 6	
	Coefficient (Standard error)	Marginal effect	Coefficient (Standard error)	Marginal effect
Sector (RC: Construction)				
Agriculture	2.900 (1.204)**	0.412	2.765 (1.211)**	0.391
Hotels and restaurants	-1.419 (0.624)**	-0.244	-1.212 (0.582)**	-0.226
Services	0.320 (0.550)	0.061	0.214 (0.520)	0.042
Transport and communications	1.140 (0.618)*	0.206	0.958 (0.598)	0.178
Trade	0.019 (0.524)	0.004	-0.123 (0.494)	-0.024
Retail	0.631 (0.541)	0.119	0.400 (0.508)	0.078
Industry	0.002 (0.572)	0.000	-0.375 (0.535)	-0.074
Health	-15.478 (536.687)	-0.453	-14.602 (370.085)	-0.481
Other	1.366 (0.859)	0.242	1.237 (0.843)	0.223
Number of employees (RC: Sole traders and micro (0-9 employees))				
Small (10-49 employees)	0.365 (0.415)	0.065	0.480 (0.399)	0.088
Medium and large (50+ employees)	-0.173 (0.842)	-0.031	0.128 (0.834)	0.024
Legal status (RC: Sole proprietorship)				
Private limited company, limited by shares (LTD.)	1.682 (0.360)***	0.309	1.717 (0.345)***	0.321
Public Ltd Company (PLC)	0.639 (0.463)	0.111	0.677 (0.456)	0.118
Other	19.268 (536.688)	0.721	17.946 (370.086)	0.734
Operating period (RC: Less than 5 years)				
6 - 10 years	-0.792 (0.361)**	-0.141	-0.805 (0.348)**	-0.151
11 - 20 years	-0.347 (0.357)	-0.061	-0.304 (0.345)	-0.056
More than 20 years	-0.027 (0.402)	-0.005	0.035 (0.387)	0.006
Business locality (RC: Small town)				
The capital	-1.347 (0.447)***	-0.244	-1.284 (0.444)***	-0.241
Big city (regional centre)	-0.371 (0.313)	-0.067	-0.280 (0.305)	-0.053
Village or rural area	-1.579 (0.811)*	-0.284	-1.553 (0.803)*	-0.286
The entire country	0.116 (0.529)	0.020	0.161 (0.488)	0.029
Both inside the country and outside the country, or outside the country only	-0.278 (0.605)	-0.050	-0.163 (0.601)	-0.030
Vat registered	-0.594 (0.33)*	-0.106	-0.752 (0.313)**	-0.140
Corruption as an obstacle to the current operations of the companies	0.341 (0.088)***	0.061		
Political instability as an obstacle to the current operations of the companies			0.209 (0.085)**	0.039
Number of observations	390		401	
Pseudo R2	0.176		0.159	
Prob > F	0.000		0.000	

Notes: (1) Dependent variable: Tax morale measured on a four-point scale (1=Low tax morale; 2=Mid low tax morale; 3=Mid high tax morale; 4=High tax morale)

(2) We report the marginal effects for the highest score of the tax morale index (4)

(3) Significance: *p<0.1, **p<0.05, ***p<0.01

Source: Authors' own work based on the GREY Survey in FYROM

5. Discussion and Conclusions

This paper has evaluated a new institutionalist theory, which argues that formal institutional failures lead to the emergence of an asymmetry between the formal rules (laws and regulations) and entrepreneurs' views regarding the acceptability of participating in the informal sector, which in turn leads to the prevalence of informal entrepreneurship. Reporting face-to-face interviews with a nationally representative sample of 453 entrepreneurs in FYR Macedonia, not only is a significant association identified between participation in the informal economy and the non-alignment of entrepreneurs' views with the formal rules, but some specific formal institutional failings are identified that lead to this asymmetry between their views and the formal rules.

Therefore, in terms of theoretical implications, this paper makes three advances. First, most studies explaining participation in the informal economy from this emergent social actor approach grounded in institutional theory have focused on citizens or employees' level of adherence to the formal rules regarding the unacceptability of informality. Few have evaluated the level of entrepreneurs' non-alignment with the formal rules. This paper has filled this lacuna in South-Eastern Europe. Second, by revealing there is a strong association between participating in the informal economy and entrepreneurs' non-alignment with the formal rules, it confirms the usefulness of an institutional theory lens. The greater the degree of asymmetry between the laws and regulations of formal institutions and the norms, values and beliefs of entrepreneurs, the greater is the prevalence of informal entrepreneurship. Finally, and importantly for further advancing institutional theory, some of the formal institutional failures that lead to this lack of adherence to the formal rules are identified. There is a significant association between entrepreneurs' level of adherence to the formal rules and their perceptions of the quality of public services, tax fairness, public sector corruption and instability in the formal institutions.

Turning to the implications for policy, this paper reveals that at a minimum, there is a need to complement the dominant rational economic actor policy approach, which seeks to increase the penalties and probability of detection with policy measures to improve the alignment between entrepreneurs' views of the acceptability of informality and the formal rules. To do so, the first approach that can be used is to alter entrepreneurs' views regarding the acceptability of informality using tax education and awareness raising campaigns (e.g., by providing information about the benefits of operating in the formal economy and showing the public goods and services received for the taxes paid). Nevertheless, it is arguable that entrepreneurs' views on the acceptability of informality will not change until there are alterations in the formal institutions. On the other hand, formal institutions need to be altered. As the ordered logit regression analysis reveals, this requires, at a minimum, improvements in the quality of public services, greater tax fairness, reduced public sector corruption and greater stability in the formal institutions and rules of the game.

Despite these theoretical and policy implications, this paper has its limitations. First, it reports results for only one country. Therefore, future research needs to evaluate whether similar associations are identified when conducting entrepreneur surveys in other nations.

Second, although this study reveals that the propensity of entrepreneurs to operate in the informal economy is significantly associated with their degree of non-alignment to the formal rules, it only uncovers some of the formal institutional failings that lead to this lack of adherence to the formal rules. Therefore, future quantitative, as well as in-depth qualitative research, is required to more systematically evaluate the types of formal institutional failings that lead to this lack of adherence so government can pursue more targeted policy measures to improve the level of trust between entrepreneurs and government.

In sum, this paper has revealed the importance of the “social actor” approach grounded in institutional theory in explaining and tackling informal entrepreneurship in FYR Macedonia. If this paper stimulates similar research in other countries and more in-depth research on the formal institutional failings that lead to this lack of adherence, then it will have fulfilled a primary intention. If this then leads to changes in how informal entrepreneurship is tackled and greater emphasis on addressing the low the levels of vertical trust that lead to higher levels of informal entrepreneurship, then it will have fulfilled its fuller intention.

Acknowledgements

This paper is an output of the European Commission’s Framework 7 Industry-Academia Partnerships Programme (IAPP) grant no. 611259 entitled “Out of the shadows: developing capacities and capabilities for tackling undeclared work in Bulgaria, Croatia and FYR Macedonia” (GREY). The authors would like to thank the funders for providing the financial support to enable this to be written. The usual disclaimers apply.

References

- Alasfour, F, M Samy and R Bampton (2016). The determinants of tax morale and tax compliance: Evidence from Jordan. In *Advances in Taxation*, J Hasseldine (ed.), 125-71. Bingley: Emerald.
- Ali, N and B Najman (2018). Informal competition, firm productivity and policy reforms in Egypt. In *The Informal Economy Exploring Drivers and Practices*, IA Horodnic, P Rodgers, CC Williams and L Momtazian (eds.), 229-54. London: Routledge.
- Allingham, MG and A Sandmo (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3-4), 323-38.
- Alm, J and JL Gomez (2008). Social capital and tax morale in Spain. *Economic Analysis and Policy*, 38(1), 73-87.
- Alm, J and B Torgler (2004). Estimating the determinants of tax morale. Proceedings. Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association, 97, 269-74.
- (2006). Culture differences and tax morale in the United States and in Europe. *Journal of Economic Psychology*, 27(2), 224-46.
- (2011). Do ethics matter? Tax compliance and morality. *Journal of Business Ethics*, 101(4), 635-51.
- Alm, J, T Cherry, M Jones and M McKee (2010). Taxpayer information assistance services and tax compliance behaviour. *Journal of Economic Psychology*, 31(4), 577-86.

- Alm, J, E Kirchler and S Muehlbacher (2012). Combining psychology and economics in the analysis of compliance: From enforcement to cooperation. *Economic Analysis and Policy*, 42(2), 133-51.
- Barone, G and S Mocetti (2011). Tax morale and public spending inefficiency. *International Tax and Public Finance*, 18(6), 724-49.
- Brink, WD and TM Porcano (2016). The impact of culture and economic structure on tax morale and tax evasion: A country-level analysis using SEM. In *Advances in Taxation*, J Hasseldine (ed.), 87-123. Bingley: Emerald.
- Çevik, S (2016). Tax morale and tax compliance in socio-political context. In *Political Economy of Taxation*, M Aydin and SS Tan (eds.), 37-57. Istanbul: IJOPEC.
- Chan, HF, MW Supriyadi and B Torgler (2018). Trust and tax morale. In *The Oxford Handbook of Social and Political Trust*, EM Uslaner (ed.), 42-81. Oxford: Oxford University Press.
- Cummings, RG, J Martinez-Vazquez, M McKee and B Torgler (2005). Effects of tax morale on tax compliance: Experimental and survey evidence. [leitner.yale.edu/sites/default/files/files/resources/docs/botswana.pdf].
- (2009). Tax morale affects tax compliance: evidence from surveys and an artefactual field experiment. *Journal of Economic Behavior and Organization*, 70(3), 447-57.
- Cyan, MR, AM Koumpias and J Martinez-Vazquez (2016). The determinants of tax morale in Pakistan. *Journal of Asian Economics*, 47, 23-34.
- De Soto, H (1989). *The Other Path: The Economic Answer to Terrorism*. London: Harper and Row.
- Dell'Anno, R (2009). Tax evasion, tax morale and policy maker's effectiveness. *The Journal of Socio-Economics*, 38(6), 988-97.
- Frey, BS (2003). Deterrence and tax morale in the European Union. *European Review*, 11(3), 385-406.
- Feld, LP and BS Frey (2004). Illegal, immoral, fattening or what? How deterrence and responsive regulation shape tax morale. Marburg: Working Papers on Economics 200426, Faculty of Business Administration and Economics, Department of Economics, Philipps-Universität Marburg.
- Fries, S, T Lysenko and S Polanec (2003). The 2002 Business Environment and Enterprise Performance Survey: results from a survey of 6,100 firms. EBRD Working Paper no. 84. [www.ebrd.com/pubs/find/index.html].
- Godfrey, PC (2011). Towards a theory of the informal economy. *Academy of Management Annals*, 5, 231-77.
- Halla, M (2012). Tax morale and compliance behavior: First evidence on a causal link. *The B.E. Journal of Economic Analysis and Policy*, 12(1), 1-27.
- Hartl, B, E Hofmann, K Gangl, M Hartner-Tiefenthaler and E Kirchler (2015). Does the sole description of a tax authority affect tax evasion? The impact of described coercive and legitimate power. *PLoS One*, 10(4), e0123355.
- Helmke, G and S Levitsky (2004). Informal institutions and comparative politics: A research agenda. *Perspectives on Politics*, 2(4), 725-40.
- Hofmann, E, B Hartl, K Gangl, M Hartner-Tiefenthaler and E Kirchler (2017). Authorities' coercive and legitimate power: The impact on cognitions underlying cooperation. *Frontiers in Psychology*, 8(5), doi:10.3389/fpsyg.2017.00005.
- Horodnic, IA (2018). Tax morale and institutional theory: A systematic review. *International Journal of Sociology and Social Policy*, [doi.org/10.1108/IJSSP-03-2018-0039].
- Horodnic, IA and CC Williams (2016). An evaluation of the shadow economy in Baltic States: A tax morale perspective. *International Journal of Entrepreneurship and Small Business*, 28(2-3), 339-58.

- Hudson, J, CC Williams, M Orviska and S Nadin (2012). Evaluating the impact of the informal economy on businesses in South East Europe: Some lessons from the 2009 World Bank Enterprise Survey. *The South-East European Journal of Economics and Business*, 7(1), 99-110.
- ILO (2017). ILO approach to strategic compliance for labour inspectorates. Geneva: ILO.
- Kaplanoglou, G and VT Rapanos (2015). Why do people evade taxes? New experimental evidence from Greece. *Journal of Behavioral and Experimental Economics*, 56, 21-32.
- Ketchen, DJ, RD Ireland and JW Webb (2014). Towards a research agenda for the informal economy: A survey of the Strategic Entrepreneurship Journal's Editorial Board. *Strategic Entrepreneurship Journal*, 8, 95-100.
- Khan, EA and M Quaddus (2015). Examining the influence of business environment on socioeconomic performance of informal microenterprises: Content analysis and partial least square approach. *International Journal of Sociology and Social Policy*, 35(3/4), 273-88.
- Kirchgässner, G (2010). Tax morale, tax evasion, and the shadow economy. St Gallen: Discussion Paper no. 2010-17, Department of Economics, University of St. Gallen.
- Kirchler, E (2007). *The Economic Psychology of Tax Behaviour*. Cambridge: Cambridge University Press.
- Kistruck, GM, JW Webb, CJ Sutter and AVG Bailey (2015). The double-edged sword of legitimacy in base-of-the-pyramid markets. *Journal of Business Venturing*, 30(3), 436-51.
- Levitsky, S and MV Murillo (2009). Variation in institutional strength. *Annual Review of Political Science*, 12(1), 115-33.
- Lima, FWS and G Zaklan (2008). A multi-agent-based approach to tax morale. *International Journal of Modern Physics C*, 19(12), 1797-808.
- Lisi, G (2015). Tax morale, tax compliance and the optimal tax policy. *Economic Analysis and Policy*, 45, 27-32.
- London, T, H Esper, E Grogan-Kaylor and GM Kistruck (2014). Connecting poverty to purchase in informal markets. *Strategic Entrepreneurship Journal*, 8(1), 37-55.
- Mair, J, I Marti and M Ventresca (2012). Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. *Academy of Management Journal*, 55, 819-50.
- Mas'ud, A, NAA Manaf and N Saad (2015). Testing assumptions of the 'slippery slope framework' using cross-country data: Evidence from sub-Saharan Africa. *International Journal of Business and Society*, 16(3), 408-21.
- Mazzolini, G, L Pagani and A Santoro (2017). The deterrence effect of real-world operational tax audits. Milan: DEMS Working Paper Series No. 359, Department of Economics, Management and Statistics, University of Milan–Bicocca.
- Medina, L and F Schneider (2018). Shadow economies around the world: what did we learn over the last 20 years? Washington DC: International Monetary Fund Working Papers, African Department.
- Molero, JC and F Pujol (2012). Walking inside the potential tax evader's mind: Tax morale does matter. *Journal of Business Ethics*, 105(2), 151-62.
- Murphy, K (2005). Regulating more effectively: The relationship between procedural justice, legitimacy and tax non-compliance. *Journal of Law and Society*, 32(4), 562-89.
- Murphy, K (2008). Enforcing tax compliance: To punish or persuade? *Economic Analysis and Policy*, 38(1), 113-35.
- Murphy, K and N Harris (2007). Shaming, shame and recidivism: A test of reintegrative shaming theory in the white-collar crime context. *The British Journal of Criminology* 47(6), 900-17.
- Niesiołędzka, M (2014). Relations between procedural fairness, tax morale, institutional trust and tax evasion. *Journal of Social Research and Policy*, 5(1), 41-52.

- North, DC (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- Putniņš, T and A Sauka (2017). *Shadow Economy Index for the Baltic Countries 2009 – 2016*. Riga: Centre for Sustainable Business at Stockholm School of Economics in Riga.
- Putniņš, T, A Sauka and AA Davidescu (2018). *Shadow Economy Index for Moldova and Romania 2015 – 2016*. Riga: Centre for Sustainable Business at Stockholm School of Economics in Riga.
- Ristovska, M, N Mojsoska-Blazevski and M Nikolov (2013). An alternative view to the tax evasion: The effect of tax morale on paying taxes in Macedonia and EU countries. *Serbian Journal of Management*, 8(2), 169-83.
- Round, J, CC Williams and P Rodgers (2008). Corruption in the post-Soviet workplace: The experiences of recent graduates in contemporary Ukraine. *Work, Employment and Society*, 22(2), 149-66.
- Saitta, P (2017). Practices of subjectivity: The informal economies and the subaltern rebellion. *International Journal of Sociology and Social Policy*, 37(7/8), 400-16.
- Shaw, J, J Slemrod and J Whiting (2008). *Administration and Compliance*. Oxford: Oxford University Press.
- Sipos, A (2015). Determining factors of tax-morale with special emphasis on the tax revenues of local self-governments. *Procedia Economics and Finance*, 30, 758-67.
- Siqueira, ACO, JW Webb and GD Bruton (2016). Informal entrepreneurship and industry conditions. *Entrepreneurship Theory and Practice*, 40(1), 177-200.
- Stark, JA and E Kirchler (2017). Inheritance tax compliance – earmarking with normative value principles. *International Journal of Sociology and Social Policy*, 37(7/8), 452-67.
- Sumartaya, D and A Hafidiah (2014). The influence of taxpayer's awareness and tax morale toward tax evasion. *International Journal of Business, Economics and Law*, 5(1), 60-68.
- Svensson, J (2005). Eight questions about corruption. *Journal of Economic Perspectives*, 19, 19-42.
- Tonoyan, V, R Strohmeier, M Habib and M Perlitz (2010). Corruption and entrepreneurship: how formal and informal institutions shape small firm behavior in transition and mature market economies. *Entrepreneurship Theory and Practice*, 34(5), 803-31.
- Torgler, B (2001). What do we know about tax morale and tax compliance? *International Review of Economics and Business (RISEC)*, 48(3), 395-419.
- (2004). Tax morale in Asian countries. *Journal of Asian Economics*, 15, 237-66.
- (2006). The importance of faith: Tax morale and religiosity. *Journal of Economic Behavior and Organization*, 61(1), 81-109.
- (2007). *Tax Compliance and Morale. A Theoretical and Empirical Analysis*. Cheltenham: Edward Elgar.
- (2011). Tax morale and compliance review of evidence and case studies for Europe. Washington DC: Policy Research Working Paper 5922, The World Bank, Europe and Central Asia Region.
- (2012). Tax morale, Eastern Europe and European enlargement. *Communist and Post-Communist Studies*, 45(1-2), 11-25.
- Torgler, B and M Schaffner (2007). Causes and consequences of tax morale: An empirical investigation. Basel: working paper no. 2007-11, Center for Research in Economics, Management and the Arts.
- Torgler, B and F Schneider (2006). Shadow economy, institutions and tax morale. Proceedings. Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association, 99, 204-10.
- (2007a). What shapes attitudes toward paying taxes? Evidence from multicultural European countries. *Social Science Quarterly*, 88(2), 443-70.

- (2007b). Shadow economy, tax morale, governance and institutional quality: A panel analysis. Bonn: IZA Discussion Paper No. 2563, The Institute for the Study of Labor (IZA).
- (2009). The impact of tax morale and institutional quality on the shadow economy. *Journal of Economic Psychology*, 30(2), 228-45.
- Torgler, B, IC Demir, A Macintyre and M Schaffner (2008). Causes and consequences of tax morale: An empirical investigation. *Economic Analysis and Policy*, 38(2), 313-39.
- Torgler, B, M Schaffner and A Macintyre (2007a). Tax compliance, tax morale and governance quality. Atlanta: International Studies Program Working Paper 07-27, Andrew Young School of Policy Studies, Georgia State University.
- Torgler, B, F Schneider and CA Schaltegger (2007b). With or against the people? The impact of a bottom-up approach on tax morale and the shadow economy. Brisbane: Working/ Discussion Paper no. 211, QUT - School of Economics and Finance.
- Vythelingum, P, H Soondram and B Jugurnath (2017). An assessment of tax morale among Mauritian taxpayers. *Journal of Accounting and Taxation*, 9(1), 1-10.
- Webb, JW, L Tihanyi, RD Ireland and DG Sirmon (2009). You say illegal, I say legitimate: Entrepreneurship in the informal economy. *Academy of Management Review*, 34(3), 492-510.
- Webb, JW, GD Bruton, L Tihanyi and RD Ireland (2013). Research on entrepreneurship in the informal economy: Framing a research agenda. *Journal of Business Venturing*, 28, 598-614.
- Welter, F, D Smallbone and A Pobol (2015). Entrepreneurial activity in the informal economy: A missing piece of the jigsaw puzzle. *Entrepreneurship and Regional Development*, 27(5-6), 292-306.
- Williams, CC (2014). *Confronting the Shadow Economy: Evaluating Tax Compliance and Behaviour Policies*. Cheltenham: Edward Elgar.
- (2018). *Entrepreneurship in the Informal Sector: An Institutional Perspective*. London: Routledge.
- Williams, CC and J Franic (2015). Tackling the propensity towards undeclared work: Some policy lessons from Croatia. *South East European Journal of Economics and Business*, 10(1), 18-31.
- (2016). Explaining participation in the informal economy in post-socialist societies: A study of the asymmetry between formal and informal institutions in Croatia. *Journal of Contemporary Central and Eastern Europe*, 24(1), 51-65.
- Williams, CC and IA Horodnic (2015a). Evaluating the prevalence of the undeclared economy in Central and Eastern Europe: An institutional asymmetry perspective. *European Journal of Industrial Relations*, 21(4), 389-406.
- (2015b). Explaining and tackling the shadow economy in Estonia, Latvia and Lithuania: A tax morale approach. *Baltic Journal of Economics*, 15(2), 81-98.
- (2015c). Tackling the informal economy in Southeast Europe: An institutional approach. *Southeast European and Black Sea Studies*, 15(4), 519-39.
- (2015d). Explaining the prevalence of illegitimate wage practices in Southern Europe: An institutional analysis. *South European Society and Politics*, 20(2), 203-21.
- (2015e). Explaining and tackling envelope wages in the Baltic Sea region: An institutional perspective. *Baltic Journal of Management*, 10(3), 295-312.
- (2016a). An institutional theory of the informal economy: Some lessons from the United Kingdom. *International Journal of Social Economics*, 43(7), 722-38.
- (2016b). Cross-country variations in the participation of small businesses in the informal economy: An institutional asymmetry explanation. *Journal of Small Business and Enterprise Development*, 23(1), 3-24.

- (2016c). Tackling the undeclared economy in the European Union: An evaluation of the tax morale approach. *Industrial Relations Journal*, 47(4), 322-40.
- (2017a). Evaluating the illegal employer practice of under-reporting employees' salaries. *British Journal of Industrial Relations*, 55(1), 83-111.
- (2017b). Explaining the informal economy in post-communist societies: A study of the asymmetry between formal and informal institutions in Romania. In *The Informal Economy in Global Perspective - Varieties of Governance*, A Polese, CC Williams, IA Horodnic and P Bejakovic (eds.), 117-40. Basingstoke: Palgrave Macmillan.
- Williams, CC and B Krasniqi (2017). Evaluating the individual- and country-level variations in tax morale: Evidence from 35 Eurasian countries. *Journal of Economic Studies*, 44(5), 816-32.
- (2018). Explaining entrepreneurship in the informal economy: An institutionalist perspective. *Journal of Developmental Entrepreneurship*, 23(2), 10.1142/S1084946718500115
- Williams, CC and A Martinez (2014). Explaining cross-national variations in tax morality in the European Union: an exploratory analysis. *Studies of Transition States and Societies*, 6(1), 5-18.
- Williams, CC and E Puts (2017). *Platform Survey Report: Organizational Characteristics of Enforcement Bodies, Measures Adopted to Tackle Undeclared Work, and the Use of Databases and Digital Tools*. Brussels: European Commission.
- Williams, CC and MS Shahid (2016). Informal entrepreneurship and institutional theory: Explaining the varying degrees of (in)formalization of entrepreneurs in Pakistan. *Entrepreneurship and Regional Development*, 28(1-2), 1-25.
- Williams, CC, IA Horodnic and J Windebank (2015). Explaining participation in the informal economy: An institutional incongruence perspective. *International Sociology*, 30(3), 294-313.
- Williams, CC, M Shahid and A Martinez-Perez (2016). Determinants of the level of informality of informal micro-enterprises: Some evidence from the city of Lahore Pakistan. *World Development*, 84, 312-25.
- Williams, CC, A Martinez-Perez and AM Kedir (2017). Informal entrepreneurship in developing economies: The impacts of starting-up unregistered on firm performance. *Entrepreneurship Theory and Practice*, 41(5), 773-99.
- Windebank, J and IA Horodnic (2017). Explaining participation in undeclared work in France: Lessons for policy evaluation. *International Journal of Sociology and Social Policy*, 37(3-4), 203-17.