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## **EXPLAINING INFORMAL SECTOR ENTREPRENEURSHIP IN KOSOVO: AN INSTITUTIONALIST PERSPECTIVE**

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Institutional theory has been widely used to explain entrepreneurship in the informal economy. A first wave of institutionalist theory argued that informal entrepreneurship resulted from formal institutional failures and a second wave that such entrepreneurship results from an asymmetry between the laws and regulations of formal institutions and the unwritten socially shared rules of informal institutions. This paper evaluates the validity of these two waves of institutionalist explanation and a new third wave of institutional theory explaining informal entrepreneurship in terms of a lack of both vertical and horizontal trust. Reporting data from a 2013 survey in Kosovo involving 500 face-to-face interviews with owners of small and medium-sized enterprises, 35.7 percent of sales are estimated to be unreported and a regression analyses reveals this is significantly higher among smaller and older firms, and firms owned by men. No significant association is found between formal institutional failings and the under-reporting of sales, but there is a statistically significant correlation between sales under-reporting and the level of vertical and horizontal trust. Taking account of the limitations of this single country study, the implications for theory and policy are then discussed.

Keywords: Informal sector; entrepreneurship; Kosovo; development economics; institutional theory.

### **1. Introduction**

For much of the twentieth century, the predominant belief was that entrepreneurship in the informal economy—meant here as 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., 2017a)—was disappearing with the natural and inevitable advent of modern formal economies. Enterprises operating in the formal economy were thus deemed the “mainstream” and appropriate focus of enquiry, and entrepreneurship and enterprise in the informal economy depicted as insignificant, waning and of little concern. Since the turn of the millennium, however, it has been recognized that two-thirds of all

enterprises are unregistered at startup (Autio and Fu, 2015), that at least half of all enterprises globally are unregistered (Acs et al., 2013). Additionally, an even higher proportion are engaged in entrepreneurship in the informal economy if the uncalculated number of formal enterprises under-reporting sales is included (Williams, 2018).

This paper advances this emergent field of informal entrepreneurship by evaluating the contemporary scholarship that has explained entrepreneurship in the informal economy by drawing upon institutional theory (North, 1990). In a first wave of institutionalist theory on informal entrepreneurship, such endeavor was argued to result from formal institutional failures (Puffer et al., 2010; Sutter et al., 2013), while a second wave has explained such entrepreneurship to result from the asymmetry between the laws and regulations of formal institutions and the unwritten socially shared rules of informal institutions (Godfrey, 2015; Webb et al., 2009, 2013). The contribution of this paper is to evaluate the validity of these two waves of institutionalist explanation and the evidence for a new, third wave of institutionalist thought that has started to explain informal entrepreneurship in terms of not only a lack of vertical trust (i.e., an incongruence between formal and informal institutions) but also a lack of horizontal trust (i.e., an incongruence within informal institutions).

To commence, section 2 reviews the literature that has sought to explain informal entrepreneurship from an institutionalist perspective and to formulate hypotheses that evaluate the various institutionalist explanations. To test these hypotheses, section 3 then reports the data used, namely a survey conducted in Kosovo during 2013 involving 500 face-to-face interviews with the owners of small and medium-sized enterprises, and the analytical methods employed; a linear regression model. Section 4 then reports the findings while section 5 discusses the theoretical and policy implications. The outcome will be an evidence-based evaluation of institutionalist explanations for informal entrepreneurship, which displays the need to advance beyond explaining and tackling informal entrepreneurship solely in terms of resolving formal institutional failures.

## **2. Informal Entrepreneurship and Institutional Theory: Theoretical Framing and Hypotheses Development**

Recent years have seen the emergence of a small but growing literature on informal entrepreneurship (Adom and Williams, 2012; Aidis et al., 2006; Bureau and Fendt, 2011; Kus, 2014; Morris and Polese, 2014; Mróz, 2012; Webb et al., 2009, 2013; Welter et al., 2014; Williams, 2006, 2013, 2015b; Williams and Kedir, 2016, 2017; Williams and Youssef, 2013). This literature has analyzed not only the prevalence of informal entrepreneurship (Autio and Fu, 2015) and the determinants of its variable prevalence (Dau and Cuervo-Cazurra, 2014; Siqueira et al., 2014; Thai and Turkina, 2014), but also who participates (Williams and Horodnic, 2015) and their motives, including whether they are necessity- and/or opportunity-driven (Maloney, 2004; Perry and Maloney, 2007; Williams and Round, 2009; Williams et al., 2012).

To explain entrepreneurship in the informal economy, and reflecting the literature on entrepreneurship in general, scholars have predominantly drawn inspiration from institutional theory (Baumol and Blinder, 2008; Denzau and North, 1994; North, 1990).

Institutions from this theoretical perspective are the rules of the game that govern behavior, and any society is seen to consist of both formal institutions (i.e., codified laws and regulations) that set out the legal rules of the game, as well as informal institutions, which are the unwritten socially shared rules that exist outside of officially sanctioned channels (Helmke and Levitsky, 2004; Krasniqi and Desai, 2016), and are the norms, values and beliefs held by citizens and entrepreneurs regarding what is right and acceptable (Denzau and North, 1994). Viewed through this institutionalist lens, formal entrepreneurship is an endeavor occurring within the formal institutional prescriptions set out in the laws and regulations. Informal entrepreneurship, in contrast, is an endeavor occurring outside of formal institutional prescriptions but within the norms, values and beliefs of informal institutions (Godfrey, 2011; Kistruck et al., 2015; Siqueira et al., 2016; Webb et al., 2009; Welter et al., 2015; Williams and Gurtoo, 2017), while criminal entrepreneurship occurs outside of both formal institutional prescriptions as well as the socially shared rules of what is acceptable.

Reviewing explanations of informal entrepreneurship from an institutionalist perspective, three distinct waves of thought can be discerned. Each wave is here examined in turn and hypotheses developed to evaluate the resultant explanations for informal entrepreneurship.

### **2.1. First-wave institutionalist theory: Formal institutional failings**

In a first wave of institutional thought on informal entrepreneurship, such entrepreneurship was explained to directly result from various formal institutional failures, namely resource misallocations and inefficiencies, voids and weaknesses, and powerlessness (Webb and Ireland, 2015; Williams, 2018).

The first set of formal institutional failures relate to resource misallocations and/or inefficiencies by formal institutions (Qian and Strahan, 2007). On the one hand, these result from the “misuse of public office for private gain” (Pope, 2000; Svensson, 2005; Tonoyan et al., 2010), such as when government officials demand or receive gifts, bribes and other payments (e.g., a portion of a given contract) from enterprises and entrepreneurs, and provide a service in return (e.g., an operating license or construction permit). Such corruption acts as an additional tax formal entrepreneurs pay, which can push entrepreneurs into the informal economy to escape such extortion (Williams et al., 2016b; Krasniqi and Mustafa, 2016; Lajqi and Krasniqi, 2017). On the other hand, these resource misallocations and inefficiencies also result from formal institutions acting to protect or maximize economic rents for elites (Acemoglu and Robinson, 2012). This arises when there is state capture, whereby firms or groups of firms influence the formulation of laws and government policies to their own advantage in an illicit or non-transparent manner (Fries et al., 2003). The outcome is they receive preferential treatment and state resources are diverted toward supporting them. For those not part of these elites capturing the resources of the state, the outcome is commonly overly burdensome taxes, and registration and licensing regulations and costs, which act as an entry barrier to formality for new entrepreneurs, and relatively fewer public goods and services in return for the taxes and

social contributions they pay (De Soto, 1989; Siqueira et al., 2016; Williams et al., 2016a). When the level of taxes paid does not correspond to the perceived value of the goods and services received, entrepreneurs will be more likely to operate in the informal sector. To evaluate whether resource misallocations and inefficiencies are an explanation for informal entrepreneurship; therefore, one proxy indicator that can be examined to begin to evaluate this is whether entrepreneurs perceived the level of taxes not to equate to the value of the public goods and services received. As such, the following hypothesis can be tested:

H1: Entrepreneurs who consider taxes to be too high will have a higher under-reporting of sales.

A second formal institutional failing resulting in the prevalence of informal entrepreneurship relates to the existence of formal institutional voids and weaknesses. Competing views exist regarding which institutional voids and weaknesses lead to a greater prevalence of informal entrepreneurship and which do not. On the one hand, a group of largely neo-liberal scholars have explained informal entrepreneurship to result from a burdensome regulatory environment and the existence of an excessively intrusive state (Becker, 2004; De Soto, 1989, 2001; London and Hart, 2004; Nwabuzor, 2005; Sauvy 1984). For these commentators, informal entrepreneurship is a rational economic decision to escape the over-regulated formal sector (De Soto, 1989, 2001; Schneider and Williams, 2013). Informal entrepreneurs voluntarily operate informally to avoid the costs, time and effort of formal registration (De Soto, 1989, 2001; Perry and Maloney, 2007; Small Business Council, 2004). Therefore, the formal institutional weakness for these commentators is that there is an over-intrusive state, which stifles the spirit of entrepreneurs through state-imposed institutional constraints (De Soto, 1989, 2001; Perry and Maloney, 2007; Small Business Council, 2004). To evaluate this, the following hypothesis can be tested:

H2: Entrepreneurs considering tax administration as bureaucratic and a burden will have a higher under-reporting of sales.

On the other hand, and in contrast to the neo-liberal perspective, a more interventionist groups of scholars have argued that state intervention is necessary; however, for this to be effective, entrepreneurs need to be informed about how their taxes are spent to maintain the “social contract” between the state and its citizens (Williams, 2017). Informal entrepreneurship, in consequence, is depicted to result from the advent of de-regulation and too little state intervention in the economy in de-regulatory regimes (Davis, 2006; Gallin, 2001; Portes, 1994; Sassen, 1996; Slavnic, 2010). Therefore, the solution is to increase the amount of state intervention in the economy to prevent the need for citizens to turn to informal entrepreneurship as a survival strategy (Small Business Council, 2004). However, this will only be effective if the social contract is maintained between the state and the population. For this to be achieved, there is a need to make entrepreneurs aware of how taxes are spent (Williams, 2018). To evaluate this, the following hypothesis can be tested:

H3: Entrepreneurs who are fully informed about the budget spending of their taxes will have less under-reporting of sales.

A third formal institutional failing perceived to result in the prevalence of informal entrepreneurship relates to the existence of formal institutional powerlessness. This powerlessness is expressed in a lack of capacity of the authorities to enforce adherence to the formal rules (Webb et al., 2009). This lack of power of state authorities is often revealed in the low costs and high benefits of informal entrepreneurship, coupled with the low benefits and high costs of formalization. The result is that many entrepreneurs weigh the costs and benefits, and decide to operate on an informal basis. This is because the benefits of operating in the formal sector are insufficient to outweigh the benefits of participating in the informal sector.

The consequent solution is to increase the ability of the authorities to alter the cost/benefit ratio. Two basic tools are predominantly used by authorities to do so. On the one hand, there are administrative sanctions and penalties. On the other hand, there are initiatives that improve the perceived or actual risk of detection (Williams and Puts, 2017). In many countries, the level of sanctions that can be introduced are constrained by what is perceived as “just,” so emphasis is given to increasing the perceived or actual risk of detection, mainly by increasing the number of inspections. However, until now, the evidence has been inconclusive about whether this is effective. Some literature finds that increasing the probability of audit and detection reduces informality, at least for some income groups (e.g., Alm et al., 1995). However, other literature finds that increasing the probability of detection does not reduce informality (e.g., Webley and Halstead, 1986). Rather, it leads to increased non-compliance, not least because of a breakdown of trust between the state and its citizens (Murphy and Harris, 2007; Tyler et al., 2007). Therefore, to begin to evaluate this and the wider issue of the power of authorities, the following hypothesis can be tested:

H4: Firms perceiving tax inspections to be more likely will have less under-reporting of sales.

## **2.2. Second-wave institutionalist theory: Institutional asymmetry**

In the second wave of institutionalist explanations for informal entrepreneurship, the focus in first-wave thought solely upon formal institutional failures has been recognized to ignore the role played by cognitive and normative institutions, which can be joined together under the broad category of informal institutions (Godfrey, 2015; North, 1990; Scott, 2008). Even if there are formal institutional failings, it has been recognized that informal entrepreneurship does not necessarily result unless the socially shared norms, values and beliefs of enterprises and entrepreneurs are not aligned with the formal rules (Dau and Cuervo-Cazurra, 2014; Godfrey, 2015; Webb et al., 2009; Williams and Shahid, 2016; Williams et al., 2017a).

As such, in second-wave thought, it is not formal institutional failings per se that lead to a greater prevalence of informal entrepreneurship. If formal and informal institutions are “complementary” and thus align, then informal entrepreneurship will not occur when there are formal institutional failings. Formal institutional failings only lead to informal entrepreneurship if there is incongruence between the formal and informal institutions, and thus the rules of informal institutions are “substitutive” and incompatible with those of the formal institutions (Godfrey, 2011; 2015; Williams et al., 2015, 2016a). As Webb et al. (2009) put it, “the informal economy exists because of the incongruence between what is defined as legitimate by formal and informal institutions.” If formal and informal institutions are not in symmetry, the result is informal entrepreneurship which, although formally illegal, is deemed socially legitimate (De Castro et al., 2014; Kistruck et al., 2015; Siqueira et al., 2016; Webb et al., 2013, 2014). Indeed, the greater the degree of institutional asymmetry, the higher is the level of informal entrepreneurship (Williams and Shahid, 2016).

As a result, this second wave of institutional thought has used proxy measures to evaluate this asymmetry between formal and informal institutions. One such proxy indicator is whether public sector corruption is perceived to exist. When corruption is perceived to predominate, the greater is found to be the level of institutional symmetry (Daude et al., 2013; Torgler, 2012). To evaluate the level of institutional asymmetry, the following hypothesis can be tested:

H5: Entrepreneurs who perceive corruption as providing a high barrier to the operation and growth of their business are more likely to underreport sales.

### **2.3. Third-wave institutional theory: Vertical and horizontal trust**

The scholarship in second-wave institutionalist thought has so far focused almost entirely upon the level of “vertical trust” (i.e., the institutional asymmetry between government and citizens) and its relationship with participation in informal entrepreneurship. Little attention has been given to the relationship between participation in informal entrepreneurship and the level of “horizontal trust” (between entrepreneurs). However, it can be argued that entrepreneurs are more likely to under-report sales if they operate in a context where they perceive sales under-reporting as widespread. This is because they might then be less worried about the formal (and informal) sanctions, but also because they might consider that everybody else under-reports sales so see no reason why they should not do so.

Indeed, there is an emergent evidence-base on the importance of horizontal trust but until now, only in relation to voluntary tax compliance, rather than specifically in relation to participation in informal entrepreneurship. Studies reveal taxpayers’ inclination to comply is significantly associated with the actual and/or perceived behavior of their fellow citizens (Ajzen, 1991; Chang and Lai, 2004; Mendoza Rodriguez and Wielhouwer, 2015; Narsa et al., 2016). An experimental study conducted in three European countries

(Belgium, France and the Netherlands), for example, shows tax evasion increased significantly among participants who received information about previous studies revealing a low level of compliance, while those who received information about high compliance rates did not increase their subsequent tax evasion (Lefebvre et al., 2015).

Therefore, to complement the second wave view that a lack of vertical trust is significantly associated with participation in informal entrepreneurship, a nascent third wave of thought can be discerned, which views informal entrepreneurship not only to result from formal institutional failings that produce an incongruence between formal and informal institutions (i.e., a lack of vertical trust) but also to result from a lack of horizontal trust. To test this, the following hypothesis can be evaluated:

H6: Entrepreneurs who do not perceive others to pay their taxes are more likely to have a higher under-reporting of sales.

### **3. Data and Variables**

#### **3.1. Data and sample**

To evaluate these hypotheses explaining informal entrepreneurship, data is here reported from a small and medium enterprise survey in Kosovo, conducted by the Business Support Centre Kosovo (BSCK) in 2013 and funded by SPARK through the Dutch Foreign Ministry (for details, see BSCK 2013). This survey used face-to-face interviews with 500 Kosovan entrepreneurs conducted by the BSCK team and one of the authors of this paper, who had a lead role in the research project. Interviews were conducted by experienced and trained final-year students in the Faculty of Economics at the University of Pristina and these were monitored carefully by the BSCK research team. The respondents were the owners of the enterprises.

The sample was selected randomly from the business register at the Kosovo Business Registration Agency (KBRA). The sample was stratified based on three sectors (trade, services and manufacturing) and three company size cohorts based on number of employees (less than ten employees; 10-49 employees; 50 or more employees). No company size limits were applied in the sampling to ensure the representativeness of the overall private sector in Kosovo. The sample has the following sectorial distribution of firms: trade 55.6 percent, services 27.0 percent and manufacturing 17.4 percent. Around 19 percent of the firms selected using the public records kept at KBRA could not be surveyed because they either had terminated their operations or could not be reached. Table A1 details the variables used in the analysis and includes descriptive statistics on the sample of firms surveyed. Overall, the mean size of the firms surveyed (measured by number of employees) was small, with around eleven employees. It also reveals the mean age of firms surveyed was 11.6 years. Both size and age indicators suggest an initial stage of the development of private sector in Kosovo (see Krasniqi, 2012).



The questionnaire gathered data on how entrepreneurs perceive the business environment and its impacts on the growth and operations of their businesses. Background data was also gathered on the entrepreneurs' gender, age and education, as well as firm level factors such as firm size, firm age and whether it was in an urban or rural location. In relation to this paper, the questionnaire included a question on under-reporting sales and their views on paying taxes, tax rates, tax administration, inspections from tax authorities, corruption and whether other entrepreneurs in the same sector under-report sales.

### 3.2. Variables

In recent years, there has been recognition that because participation in the informal economy is socially legitimate from the viewpoint of informal institutions, even if it is illegal in terms of the formal institutions, respondents will discuss openly with interviewers their participation (Kazemier, 2014; Williams, 2015a). However, until now, this has only been applied by asking direct questions on participation in citizenship surveys (e.g., Williams, 2004). It has not been applied when conducting firm surveys where respondents continue to be asked indirectly about their engagement in the informal economy (Abdixhiku et al., 2017; Fries et al., 2003; Putniņš and Sauka, 2015). To analyze the above hypotheses, this survey continues this tradition of asking indirectly about participation. The dependent variable is a continuous variable extracted from the following question, "According to your view, what is the percentage of sales reported to tax authorities for a business similar to you in your sector of operations?" Each response was subtracted from 100 to produce unreported sales.

To analyze the hypotheses regarding the levels of unreported sales across enterprises in Kosovo, and based on previous studies displaying which individual variables influence participation in informal entrepreneurship (Thai and Turkina, 2014; Williams et al., 2017a), data has been collected on the following individual- and firm-level control variables:

- Gender: a dummy variable with value 1 for a female entrepreneur and 0 otherwise.
- Age of the entrepreneur: a continuous variable for their age.
- University Education: a categorical variable for the educational level with value 1 for university education, and 0 for primary education as a reference base category.
- Secondary education: a categorical variable for the educational level with value 1 for secondary education and 0 for primary education as a reference base category.
- Urban: a dummy variable with value of 1 for firms located in urban areas, 0 for firms located in rural areas.
- Firm age: number of years the firm has been operating.
- Firm size: natural logarithm of the number of employees at the beginning of the year of the survey.

To analyze hypotheses H1-H6 respectively, the following institutional variables are analyzed:

- Taxes too high: Entrepreneurs' perceptions about high taxes being a barrier to the operation and growth of their business, using a Likert scale of 1 = no barrier and 5 = very

high barrier. Here, the responses with 5 “high barrier” were recoded to 1 and 0 otherwise to produce a dummy variable.

- Tax administration burden: Entrepreneurs’ perception about the importance of tax administration burden as a barrier to the operation and growth of business, in a Likert scale of 1 = no barrier and 5 = very high barrier. Here, responses with 5 “high barrier” were recoded to 1 and 0 otherwise to produce dummy variable.
- Transparency in budget spending: a dummy variable, with value 1 if the entrepreneur answered, “I don’t have information how the budget collected from taxes is spent” and 0 otherwise.
- Tax authority inspections: a continuous variable indicating the perceived number of tax authority inspections per month a business receives.
- Corruption: Entrepreneurs’ perception about the importance of corruption for operation and growth of business in a Likert scale of 1 = no barrier and 5 = very high barrier. Here, responses with 5 “high barrier” were recoded to 1 and 0 otherwise to produce a dummy variable.
- Others do not pay taxes: a categorical variable with value of 1 for entrepreneurs who declared that “other entrepreneurs in the same sector do not pay taxes” and 0 otherwise

### 3.3. Empirical model

To estimate the factors influencing the underreporting of sales in Kosovo, we use econometric analysis based on two linear regression models, given that the dependent variable is a continuous variable that reports the percentage of unreported sales. Table 1 below reports the results of OLS regressions for two specifications. The first specification includes individual- and firm-level variables; the second specification adds to these variables a range of institutional variables based on the above hypotheses, which reflect various institutionalist explanations for participation in informal entrepreneurship.

In the first stage of the analysis, a baseline model with individual and firm level explanatory variables was estimated. Model 2 then includes the institutional explanatory variables. Adding the institutional variables significantly improves the explanatory power of the model. The final econometric model takes the following form:

$$\text{Unreported sales} = \beta_0 + \beta_1 X_i + \dots \beta_n n + \varepsilon_i$$

Where,  $\beta_0$  is the intercept,  $X_i$  represents the vector of independent variables and  $\varepsilon_i$  is the error term.  $X_i$  consists of two groups of factors influencing the firms’ growth.

## 4. Results

The overall finding is that 35.7 percent of sales are under-reported in Kosovo. Hence, the informal economy is relatively larger in Kosovo compared with neighboring countries (Williams et al., 2017b). Therefore, this raises the questions: which entrepreneurs are more

likely to under-report sales and which institutionalist theories are valid? Before answering these questions, the diagnostic testing needs to be reported. This evaluates whether there is the presence of heteroscedasticity and non-normality, which may be the case because most of the variables in the estimated regression are dummies (see Hashi and Krasniqi, 2011). To deal with this problem, the “robust standard error” technique was used based on the Huber-White sandwich estimates option, which does not assume identically distributed error terms (Hamilton, 2006).<sup>a</sup> In addition, multicollinearity was tested for using the Variable Inflated Factor (VIF) in STATA, which suggested multicollinearity was not a problem in our estimations (see Table A2). The VIF Mean = 1.98, which is lower than the threshold of ten. In addition, the correlation matrix, presented in Table A3, confirms this because the correlations between individual variables are very low. Moreover, the explanatory power of the variables analyzed and as indicated by R-squared in Table 1, ranges from 3.1 percent (basic model) to 11.4 percent (full model), thereby meaning it explains more than eleven percent of variation in the dependent variable. This is usual in this type of cross-sectional data in transition economies.

Therefore, who is more likely to under-report sales? Model 1 reports whether there is a significant association between the level of unreported sales and the individual- and firm-level variables. Neither the gender, age nor education of the entrepreneur has a statistically significant effect on unreported sales in this Kosovo survey. Nor does whether they operate in an urban or rural environment. However, there is a statistically significant correlation between under-reported sales and firm age and size, respectively. Older firms state under-reported sales are higher than younger firms. Indeed, for each one-point increase in firm age, sales under-reporting increases by 0.31 percentage points in model 1 (and 0.29 percentage points in model 2). Meanwhile, sales under-reporting decreases as firm size increases. A one percent increase in firm size decreases the level of sales under-reporting by two percentage points.

Model 2 adds to the individual- and firm-level variables the institutional variables, which are hypothesized to influence the level of sales under-reporting. This reveals that the two statistically significant variables in model 1 remain statistically significant (i.e., firm size and firm age) but gender now becomes statistically significant as well. Female entrepreneurs, on average, underreported sales 8.8 percentage points less than their male counterparts did.

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<sup>a</sup> This is a common procedure when facing minor problems arising from heteroscedasticity or non-normality or from large residuals in observations because the OLS regression tends to fit outliers at the expenses of the rest of the sample (Hamilton, 2006). The main advantage of using the robust standard error option is that although estimates of the coefficients are exactly the same as those in ordinary OLS, the standard errors take account of heterogeneity and the lack of normality.

Table 1. Linear regression model of sales under-reporting in Kosovo

Variables	Model 1 Basic model (Individual and firm level variables)	Model 2 (Individual, firm and institutional variables)
Firm level:		
Gender (1= female)	-2.522 (3.791)	-8.853** (4.366)
Age of the entrepreneur	0.0641 (0.127)	0.0191 (0.137)
University education	-4.043 (7.060)	-9.880 (7.369)
Secondary education	-0.709 (6.798)	-6.536 (7.123)
Urban	3.571 (3.700)	4.581 (3.956)
Firm age	0.310** (0.151)	0.293* (0.162)
Firm size (Natural logarithm of size)	-1.962* (1.084)	-2.089* (1.230)
Institutional-level		
Taxes too high		5.402 (3.381)
Tax administration is high burden		-0.413 (3.766)
Tax authority inspections		0.158 (1.551)
Transparency in budget spending		1.795 (3.197)
Perceptions of corruption (vertical trust)		9.789*** (3.367)
Others do not pay taxes (horizontal trust)		10.94** (5.424)
Constant	33.45*** (10.42)	40.71*** (12.12)
Observations	381	288
R-squared	0.031	0.114

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

Table A1. Descriptive statistics of variables

Variable	Obs	Mean	Std Dev	Min	Max
Unreported sales	412	35.6	24.98	0	98
Gender	501	0.17	.38	0	1
Age of owner	487	38.05	11.43	19	71
University education	501	.37	.48	0	1
Secondary	501	.58	.49	0	1
Urban	501	.87	.34	0	1
Firm age	501	11.61	9.46	1	62
Log firm size	471	1.27	1.20	0	6.91
Taxes too high	501	.35	.48	0	1
Tax administration burden	501	.25	.43	0	1
Tax authority inspections	369	.97	.92	0	6
Transparency in budget spending	501	.32	.47	0	1
Perceptions of corruption	501	.35	.48	0	1
Others do not pay taxes	501	.07	.25	0	1

Table A2. Test for multicollinearity using the Variable Inflated Factor (VIF)

Variable	VIF	1/VIF
University education	6.97	0.143
Secondary education	6.74	0.148
Taxes too high	1.58	0.634
Tax administration burden	1.55	0.644
Age of owner	1.18	0.849
Transparency how budget spent	1.09	0.913
Gender	1.09	0.914
Corruption	1.09	0.921
No. of inspections	1.08	0.922
Corruption	1.08	0.925
Urban	1.07	0.938
Others do not pay taxes	1.07	0.938
Firm age	1.06	0.945
Log firm size	1.03	0.975
Mean VIF	1.98	

Table A3. Correlations among the Individual and Institutional Level Variables

	1	2	3	4
1 Unreported sales	1.000			
2 Gender	-0.118	1.000		
3 Age of owner	0.023	0.149	1.000	
4 University education	-0.084	-0.033	-0.136	1.000
5 Secondary	0.068	-0.006	0.045	-0.912
6 Urban	0.086	-0.121	-0.034	0.030
7 Firm age	0.092	0.019	0.234	-0.005
8 Log firm size	-0.102	0.064	-0.042	-0.045
9 No. of inspections	0.009	-0.011	-0.058	0.003
10 Taxes high	0.141	0.006	-0.041	-0.086
11 Tax administration	0.084	0.122	0.065	0.001
12 Transparency in spending	0.044	-0.089	-0.047	-0.164
13 Corruption	0.203	0.004	-0.078	0.041
14 Others do not pay taxes	0.110	0.119	0.050	-0.102

Table A3 (continued). Correlations among the Individual and Institutional Level Variables

	5	6	7	8	9
1 Unreported sales					
2 Gender					
3 Age of owner					
4 University education					
5 Secondary	1.000				
6 Urban	0.012	1.000			
7 Firm age	0.012	0.052	1.000		
8 Log firm size	-0.001	-0.056	0.010	1.000	
9 No. of inspections	-0.050	0.029	-0.065	0.063	1.000
10 Taxes high	0.076	-0.069	-0.066	0.004	0.119
11 Tax administration	0.015	-0.015	0.001	-0.019	0.066
12 Transparency in spending	0.138	0.041	0.036	0.023	0.113
13 Corruption	-0.029	0.070	-0.067	0.002	0.010
14 Others do not pay taxes	0.099	-0.035	-0.015	-0.036	-0.085

Table A3 (continued). Correlations among the Individual and Institutional Level Variables

	10	11	12	13	14
1 Unreported sales					
2 Gender					
3 Age of owner					
4 University education					
5 Secondary					
6 Urban					
7 Firm age					
8 Log firm size					
9 No. of inspections					
10 Taxes high	1.000				
11 Tax administration	0.546	1.000			
12 Transparency in spending	-0.029	-0.005	1.000		
13 Corruption	0.231	0.209	-0.035	1.000	
14 Others do not pay taxes	0.033	0.096	-0.085	0.035	1.000

Turning to the first formal institutional failing, namely those resource misallocations and inefficiencies that result in entrepreneurs perceiving taxes as too high for the public goods and services they receive, the finding is that in Kosovo, there is no significant correlation between the entrepreneurs' perceptions that taxes are too high and the under-reporting of sales (refuting H1). Neither is there a significant correlation between either of the institutional voids and weaknesses and the prevalence of sales underreporting. Entrepreneurs considering tax administration as bureaucratic and a burden and a barrier to business growth and operations do not have a higher under-reporting of sales (refuting H2) and neither do entrepreneurs who are fully informed about the budget spending of their taxes have less under-reporting of sales (refuting H3). Similarly, there is no statistically significant correlation between the power of authorities and the under-reporting of sales, reflected in the fact those perceiving there to be more tax authority inspections are not less likely to under-report sales (refuting H4).

However, even if these formal institutional failures are not significantly correlated with sales under-reporting, refuting first-wave institutionalist explanations for participation in informal entrepreneurship, there is a statistically significant correlation between institutional asymmetry and sales under-reporting. When entrepreneurs lack trust in formal institutions, manifested in a perception that public sector corruption acts as a barrier to the operation and growth of their business, the level of sales under-reporting is significantly higher (confirming H5). As propounded by second-wave institutionalist thought, a lack of vertical trust (i.e., an asymmetry between formal and informal institutions) is significantly correlated with higher levels of sales under-reporting. Indeed, those lacking vertical trust and asserting corruption has a major impact on the operation and growth of their businesses have, on average, a 9.78 percentage point higher underreporting of sales than their counterparts who do not perceive corruption as having an impact.

It is also the case, as propounded in the emergent third-wave institutionalist thought, that there is a statistically significant correlation between the level of horizontal trust and the level of sales under-reporting. Entrepreneurs who are more likely to view others as not

paying their taxes are more likely to underreport sales (confirming H6). Those entrepreneurs who are more likely to believe others do not pay taxes (i.e., who lack horizontal trust) have, on average, an eleven percentage points higher underreporting of sales than those who believe others pay their taxes.

## 5. Discussion and Conclusions

Evaluating the various waves of institutional theory by reporting a 2013 survey of entrepreneurs in Kosovo, this study that reveals entrepreneurs under-report sales by 35.7 percent finds no evidence to support first-wave institutionalist explanations but does find evidence to support second- and third-wave institutionalist explanations. Here, we report the theoretical and policy implications of these findings.

Theoretically, this paper advances an institutionalist explanation of informal entrepreneurship in three ways. First, it reveals the first-wave of institutional thought, which explained informal entrepreneurship purely in terms of formal institutional failings, does not capture the reasons for entrepreneurship in the informal economy in Kosovo. Instead, and secondly, it has revealed that second-wave institutional theory, which depicts informal entrepreneurship to be associated with the asymmetry between formal and informal institutions, is valid as an explanation. A lack of vertical trust by entrepreneurs in the formal institutions is a key explanation for the prevalence of sales under-reporting in Kosovo. Third, and reflecting emergent third-wave institutionalist thought, a lack of both vertical and horizontal trust results in a greater prevalence of sales under-reporting. Therefore, future scholarship on informal entrepreneurship will need to shift away from focusing on the formal institutional failures asserted to be determinants of informal entrepreneurship in first-wave institutionalist thought. Instead, there needs to be a focus on explaining informal entrepreneurship in terms of the lack of vertical trust (i.e., the asymmetry between formal and informal institutions), as discussed by second-wave thought, as well as the little discussed lack of horizontal trust (i.e., the lack of trust within informal institutions).

This has important implications for policy. Until now, and largely resulting from the dominance of first-wave institutional thought, the major emphasis in policymaking has been on improving the formal institutions. This has predominantly involved attempts to improve the power of authorities. The way this has been pursued is by either using disincentives (“sticks”) to prevent informal entrepreneurship or incentives (“carrots”) to encourage formal entrepreneurship (Matthias et al., 2014). Conventionally, the main focus of governments has been on the use of disincentives to ensure the cost of being caught and punished is greater than the pay-off from participating in the informal economy (Allingham and Sandmo 1972). However, there is some evidence incentives are starting to be used to “bribe” entrepreneurs to operate in the formal economy (Williams and Puts, 2017).

However, the problem with this approach is that it does little to change the lack of vertical and horizontal trust, which are shown in this paper to explain informal entrepreneurship. Rather than adopt a low commitment, low trust and adversarial policy approach that pursues compliance through tight rules, prescribed procedures, close

supervision and monitoring, and centralized structures, perhaps there is a need for a high trust, high commitment policy approach that fosters self-regulation by seeking to align the norms, values and beliefs of entrepreneurs with the laws and regulations of formal institutions. This requires changes in the norms, values and beliefs of entrepreneurs regarding the acceptability of under-reporting sales. To do so, three policy initiatives can be pursued. First, educating entrepreneurs regarding the value of operating in the formal economy to align their beliefs with the formal rules and elicit self-regulation is required (Saeed and Shah, 2011). Second, awareness raising and advertising campaigns about the benefits of formalization can be used. These can either inform entrepreneurs of the risks and costs of sales under-reporting or of the benefits of fully reporting sales. Finally, normative appeals to entrepreneurs can be used, which resulted in 46 percent of enterprises paying more taxes in Estonia during 2008 (Lill and Nurmela, 2009).

However, to achieve greater symmetry between formal and informal institutions, both informal and formal institutions need to change. Entrepreneurs will not reduce their sales under-reporting if the widespread lack of trust in government and extensive corruption in the public sector and state capture persists. Hence, a modernization of governance is needed. At a minimum, this requires improvements in procedural fairness, which is the extent to which entrepreneurs believe they are paying their fair share compared with others (Molero and Pujol, 2012). Additionally, improvements in procedural justice—whether entrepreneurs believe the tax authority treat them in a respectful, impartial and responsible manner (Murphy, 2005)—and in redistributive justice—whether entrepreneurs believe they receive the goods and services they deserve given the taxes they pay (Kirchgässner, 2010).

However, it is not just vertical trust that needs to be improved. There is also a need to improve horizontal trust. Until now, when governments publish estimates of the prevalence of the informal economy they have not considered this might well increase its size by further reducing horizontal trust. Therefore, greater caution is required when publishing such estimates. There is also a need to tailor awareness raising campaigns to prevent entrepreneurs from neutralizing their guilt about their own non-compliance. For example, to prevent a denial of responsibility and when publicizing estimates of the size of the informal economy, it may be that the average level of evasion among the non-compliant should be made public so informal entrepreneurs do not see themselves as a “small fish” engaged in minor discrepancies relative to others.

The major limitation of this research is that it only evaluates the various waves of institutionalist thought in the context of one country, namely Kosovo. Future research needs to replicate this survey in other contexts because it is unknown whether similar findings result when analyzing other countries and other global regions. Moreover, there is a need to experiment more boldly with direct questions on whether entrepreneurs participate in the informal economy. Direct surveys of citizens show that, because informal economic activity is socially legitimate, even if illegal from the viewpoint of formal institutions, respondents openly discuss their participation in such endeavor (see Williams, 2015). Whether this also applies when conducting surveys of entrepreneurs now needs to



be evaluated in future surveys by asking entrepreneurs more directly whether they under-report sales.

In sum, if this paper stimulates entrepreneurship scholars to conduct evaluations of institutionalist explanations of entrepreneurship in the informal economy in other contexts, it will have fulfilled a major intention. If this results in greater consideration of how governments can improve vertical and horizontal trust, and recognition by governments of this as the way forward, rather than simply using “sticks” to prevent informality and “carrots” to promote formality, this paper will have fulfilled its wider intention.

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