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## EVALUATING THE EFFECTS OF THE INFORMAL SECTOR ON THE GROWTH OF FORMAL SECTOR ENTERPRISES: LESSONS FROM ITALY

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This paper evaluates the effect of unregistered and informal sector business ventures on the growth of formal sector enterprises. The hypotheses tested is that formal sector enterprises that have to compete against unregistered or informal sector business ventures suffer from lower levels of performance, measured by annual sales growth, annual employment growth and annual productivity growth. To evaluate this thesis, data is reported from a World Bank Enterprise Survey (WBES) of 760 enterprises in Italy collected in 2019. The finding is that formal sector enterprises that report competing against unregistered or informal sector business ventures have significantly lower annual sales growth and annual productivity growth than enterprises that do not. The paper concludes by discussing the theoretical and policy implications, along with the limitations of the study and future research required.

*Keywords:* Entrepreneurship, informal sector, informal economy, informal entrepreneurship, firm performance, Italy.

### 1. Introduction

In recent years, a large and growing literature has emerged that studies unregistered and informal sector enterprises (e.g., Deb *et al.*, 2020; Chepureenko, 2018; Karki and Xheneti, 2018; Lin, 2018; Mannila and Eremicheva, 2018; Ogando *et al.*, 2017; Petersen and Charman, 2018; Ram *et al.*, 2017; Ullah *et al.*, 2019; Williams, 2007, 2010; Williams and Laden, 2019). Unregistered enterprises refer to enterprises that do not register with the relevant authorities (Williams *et al.*, 2017). Informal enterprises cover a slightly wider range of business ventures and refer to enterprises not declaring some or all of their production and/or sales to the authorities for tax, benefit and/or labor law purposes when they should do so (Ketchen *et al.*, 2014; Williams and Shahid, 2015). Until now, the majority of literature has portrayed unregistered and informal enterprises as having deleterious effects on formal enterprises (Siqueira *et al.*, 2016; Williams and Gashi, 2020; Williams and Liu, 2019; Williams and Shahid 2015; Williams *et al.*, 2013, 2015). The aim of this paper is to test the hypothesis that formal sector enterprises that have to compete

against unregistered or informal sector business ventures suffer deleterious effects, measured in terms of lower levels of firm performance (Baumol, 1990; La Porta and Schleifer, 2008, 2014). To do this, the intention is to compare the firm performance in terms of the sales growth, employment growth and productivity growth of formal enterprises in Italy that compete against unregistered or informal establishments and those that do not.

Understanding of unregistered and informal enterprises is advanced in three distinct manners. Theoretically, this paper provides evidence to support the thesis that formal sector enterprises that have to compete against unregistered or informal sector business ventures suffer from lower levels of performance. Until now, evidence has been provided only for developing and transition economies. This paper provides the first known empirical evidence that this thesis also applies to the developed world. Therefore, empirically, reporting a 2019 WBES in Italy, it provides the first known empirical evidence that formal enterprises competing with unregistered and informal sector business ventures suffer from lower levels of performance. Finally, and from a policy perspective, this paper reveals the necessity of shifting away from an eradication approach and the need for a more positive approach that seeks to improve the benefits of registration and formalization.

To make these advances in understanding, section 2 outlines the widespread view that unregistered and informal sector enterprises are harmful both to formal sector enterprises and to wider economic development and growth, including the view that unregistered and informal sector competition negatively effects firm performance. It also reveals the weak empirical evidence to support such an assertion, especially in advanced economies. Section 3 then presents the data, variables and methodology used here to evaluate the effect of unregistered or informal establishments on formal enterprise firm performance, reporting the WBES harmonized data on 760 enterprises in Italy collected in 2019 and the modeling framework here used. Section 4 reports the results; this reveals that formal enterprises competing against unregistered or informal establishments suffer from lower levels of annual sales growth and annual productivity growth. The final section explores the implications for theory and policy, as well as the limitations of this study and future research that could be usefully undertaken.

## **2. Effects of unregistered and informal sector enterprise: A literature review**

For most of the twentieth century, unregistered and informal enterprises were considered unimportant. The dominant modernization theory viewed unregistered and informal sector enterprise as a leftover of a pre-industrial mode of production that would eventually disappear with economic development and growth (Lewis, 1959; Geertz, 1963; Gilbert, 1998). Therefore, the recognition that unregistered and informal enterprises remain prevalent and persist has resulted in greater attention in entrepreneurship scholarship to these enterprises and entrepreneurs (Schneider and Williams, 2013; ILO, 2013; Williams, 2015a, b; Williams and Schneider, 2016). Indeed, two-thirds of businesses in not only the developing world but also the developed world are unregistered at start-up (Autio and Fu, 2015) and a similar proportion have been estimated to not declare some or all of their

production and/or sales to the authorities for tax, benefit and/or labor law purposes when they should do so (Williams, 2017). The outcome has been new theorizations of unregistered and informal sector enterprise.

First, there have been attempts to update modernization theory in a way that recognizes the persistence of unregistered and informal sector enterprises (La Porta and Shleifer, 2008, 2014). Nonetheless, this continues to view unregistered and informal entrepreneurs as uneducated people and their enterprises as small and unproductive operating in separate “bottom of the pyramid” markets where they produce low-quality goods and services for low-income populations (La Porta and Shleifer, 2014). Second, a political economy theory views unregistered and informal sector enterprises as a direct by-product of an increase in outsourcing and subcontracting, which has integrated these enterprises into contemporary capitalism to reduce production costs in a “race to bottom” (Castells and Portes, 1989; Davis, 2006; Meagher, 2010; Slavnic, 2010; Taiwo, 2013). Again, such entrepreneurs are viewed as marginalized populations engaged in such activity as a means of survival in the absence of alternative livelihoods.

In both theories, formal enterprises are viewed as suffering because of the unfair competition from unregistered and informal enterprises (Barbour and Llanes, 2013; Coletto and Bisschop, 2017; Leal Ordóñez, 2014; Lewis, 2004; McKenzie and Woodruff, 2006; Williams and Kosta, 2019; Williams *et al.*, 2012). Governments are seen to be losing revenue that would be used to provide public goods and services (Bajada and Schneider, 2005; ILO, 2014), and customers as lacking legal recourse (De Beer *et al.*, 2013; Williams and Martinez, 2014b).

A small sub-stream of the literature on unregistered and informal enterprises in recent years has started to name a few positive aspects. For example, unregistered and informal enterprises have been viewed as a breeding ground for micro-enterprises (Barbour and Llanes, 2013; Ketchen *et al.*, 2014), a test-bed for business ventures (Williams and Martinez-Perez, 2014a), a means of escaping corrupt public officials (Tonoyan *et al.*, 2010), and a source of more affordable goods and services (Ketchen *et al.*, 2014; London *et al.*, 2014). These views arise out of two theories that view entrepreneurs operating unregistered and informal enterprises as sometimes doing so out of choice rather than necessity (Cross, 2000; Franck, 2012; Gërkhani, 2004; Maloney, 2004; Perry and Maloney, 2007; Williams, 2009; Williams and Gurtoo, 2012; Williams and Youssef, 2015). First, “legalist” scholars argue that such entrepreneurs weigh up the costs of informality and benefits of formality and decide not to operate formally (Cross, 2000; De Soto, 1989, 2001; Nwabuzor, 2005). Second, institutionalist scholars have argued that entrepreneurs operate unregistered or informally because they do not agree with what the state is seeking to achieve (Kistruck *et al.*, 2014; Siqueira *et al.*, 2016; Webb *et al.*, 2009). Unregistered and informal enterprises are the product of formal institutional failings. These lead entrepreneurs to reject the formal laws and regulations and to operate informally (De Castro *et al.*, 2014; Kistruck *et al.*, 2015; Puffer *et al.*, 2010; Siqueira *et al.*, 2016; Sutter *et al.*, 2013; Vu, 2014; Webb *et al.*, 2009, 2013, 2014; Williams and Horodnic, 2015; Williams and Shahid, 2015).

However, negative representations of unregistered and informal sector enterprise continue to dominate the literature. One of the most dominant negative views of unregistered and informal enterprises is the focus of this paper. This is the belief that when unregistered and informal enterprises compete with formal enterprises, formal enterprises suffer because these unregistered and informal enterprises represent unfair competition. This is because unregistered and informal enterprises do not fully comply with health and safety requirements, evade paying taxes and social insurance contributions, and avoid labor laws. As such, they can undercut formal sector enterprises when they compete with them (Leal Ordóñez, 2014; Lewis, 2004; McKenzie and Woodruff, 2006; Williams *et al.*, 2012). As La Porta and Shleifer (2014) recognize, formal enterprises have to pay taxes and comply with regulations; therefore, they have a cost disadvantage compared with those unregistered and informal enterprises. Moreover, if formality does not result in significant benefits, such as public goods provision by government, new market opportunities such as public sector contracts, and access to credit, then the costs of formality may outweigh the benefits. However, there currently exists limited empirical evidence that formal enterprises competing with unregistered and informal ventures suffer from poorer firm performance.

Three studies have so far shown this to be the case in the developing world, namely in India (Williams and Kedir, 2016), Africa (Williams and Kedir, 2017) and across 142 countries in the developing world (Williams *et al.*, 2017). Meanwhile, one study has examined this issue in transition economies, namely a study of 1,430 enterprises in Bulgaria, Croatia and FYR Macedonia (Williams and Bezeredi, 2018). The finding is that enterprises asserting that their competitors participate in the informal sector have significantly lower real annual sales growth rates compared with those who assert that their competitors do not participate in the informal sector. However, other measures of firm performance such as annual employment growth and annual productivity growth are not considered. Until now, there have been no studies in advanced economies. This is the intention of this paper. Therefore, to evaluate whether formal enterprises that compete against unregistered or informal establishments suffer from lower levels of firm performance compared with those that do not, the following hypotheses are tested:

H1: Formal enterprises competing against unregistered and informal enterprises suffer from lower levels of annual sales growth than those that do not.

H2: Formal enterprises competing against unregistered or informal enterprises suffer from lower levels of annual employment growth than those that do not.

H3: Formal enterprises competing against unregistered or informal enterprises suffer from lower levels of annual productivity growth than those that do not.

### **3. Data, Variables and Methods**

#### **3.1. Data**

To evaluate whether formal enterprises competing against unregistered or informal enterprises suffer from lower levels of firm performance than those that do not, a 2019 WBES survey conducted in Italy is reported. A stratified random sample was utilized to

gather data from 760 formal enterprises with five or more employees. Three levels of stratification were used: industry, size and region. Industry stratification was designed based on four manufacturing industries and two services industries—Food and Beverages, Fabricated Metal Products, Machinery and Equipment, Other Manufacturing, Retail and Other Services. Firm size was defined based on the number of employees. Small firms consist of 5-19 employees, medium firms consist of 20-99 employees and large firms consist of more than 100 employees. Regional stratification was developed based on five NUTS1 regions: Northwest, Northeast, Center, South and Islands. Figures for the number of establishments in each cell in Italy were obtained from Istat's 2015 ASIA registry (Registro statistico delle imprese attive).

### **3.2. Variables**

#### *3.2.1. Dependent variable*

In this paper, firm performance is measured using three indicators: real annual sales growth, annual employment growth and annual productivity growth. To calculate annual sales growth (in %), all provided values are converted first into U.S. dollars utilizing the exchange rate of two fiscal years (using GDP deflator). After that, value is deflated to 2009 drawing on the USD deflator. Annual employment growth (%) is calculated as the change of firm full-time employees over two different fiscal years. Annual productivity growth (%) is calculated as the change of labor productivity over two different fiscal years, when labor productivity is equal to real sales divided by the number of full-time permanent employees.

#### *3.2.2. Key independent variable*

To evaluate the determinants firm performance, a key predictor used is “competing against unregistered/informal establishments.” This variable is a firm-level measure deriving from the question “Does this establishment compete against unregistered or informal establishments?” This variable takes value 1 when the enterprise asserted they do compete against unregistered/informal establishments and 0 when otherwise.

#### *3.2.3. Control variables*

To test whether formal enterprises that compete against unregistered or informal enterprises have different levels of firm performance compared with those enterprises that do not, other firm performance determinants are controlled for. Control variables already confirmed in other studies to significantly affect firm performance are included: firm age, export orientation, access to finance, transport constraint, electricity constraint, innovation, legal status, sector and foreign ownership (Williams *et al.*, 2017).

- *Firm age*: a continuous variable showing how many years the interviewed firm has been operating.

- *Firm ownership*: a dummy variable that takes value 1 if more than 49 percent of the firm is owned by foreign individuals and 0 otherwise.
- *Export-orientation*: a dummy variable that takes value 1 if at least one percent of firm's sales comes from export and 0 otherwise.
- *Line of credit or loan*: a dummy variable that takes value 1 if the establishment currently has a line of credit or a loan from a financial institution and 0 otherwise.
- *Indicator of professionalism*: a dummy variable that takes value 1 if firm uses an external auditor to review its financial statements and 0 otherwise.
- *Innovation*: two variables are used to measure innovation. Quality certification, a dummy variable that takes value 1 if the enterprise has an internationally-recognized certification and 0 otherwise. Presence of a website is a dummy variable that takes value 1 if the enterprise uses a website for business and 0 otherwise.
- *Business environment constraints*: two variables are used to define business environment constraints: transport and electricity constraints. Both are dummy variables that take value 1 if they represent a severe/major constraint to firm business's activity and 0 otherwise.
- *Sector*: a categorical variable describing the main activity of the company: 1= Fabricated Metal Products, 2= Food, 3= Machinery and Equipment, 4= Retail, 5= Other Services, 6= Other Manufacturing.
- *Legal Status*: a categorical variable describing the legal status of observed company: 1=Partnership, 2=Shareholding company with shares traded on the stock market, 3= Sole proprietorship, 4=Limited 1, 5=Shareholding company with non-traded shares or shares traded privately.

### 3.3. Modeling Framework

To test the influence of unregistered or informal establishments on the performance of formal enterprises, a linear regression model is employed. All the linear regression model assumptions were preliminary checked. The following econometric model represents the final pattern where  $\pi_i^*$  represents firm performance (measured by sales, employment and productivity growth),  $C_j$  is the binary variable that captures the formal enterprise assertion whether they compete against unregistered or informal establishments,  $X_n$  captures other determinants of firm performance and  $\varepsilon_i$  represents the error term.

$$\pi_i^* = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \beta_j C_j + \varepsilon_i$$

## 4. Findings

To evaluate whether formal enterprises that compete against unregistered or informal enterprises experience lower levels of firm performance, data is reported from the WBES in Italy. Of the 760 formal enterprises with five or more employees interviewed in Italy, sixteen percent assert that they compete against unregistered or informal enterprises.

Table 1 reports the results of the linear regression model. After controlling for other drivers of firm performance, the results show that formal enterprises that compete against unregistered or informal enterprises have annual sales growth rates 0.079 percentage points lower than firms that do not. This confirms hypothesis H1. Similarly, firms that compete against unregistered or informal enterprises have annual productivity growth rates 0.075 percentage points lower than firms that do not. This confirms hypothesis H3. When investigating the effect of informal and unregistered competition on the annual employment growth of formal enterprises, the results show a negative effect. However, this association is not significant; therefore, hypothesis H2 is not confirmed.

Table 1. Determinants of firm performance, Italy, 2019: linear regression model

Variable	Sales growth	Employment growth	Productivity growth
	Coefficient (SE)	Coefficient (SE)	Coefficient (SE)
Compete against unregistered and informal enterprises	-.079** (.040)	-.001 (.011)	-.075* (.041)
Exporter	-.083** (.039)	-.004 (.010)	-.080** (.039)
Foreign ownership	-.097 (.078)	-.018 (.022)	-.083 (.077)
Credit access	.005 (.037)	-.015 (.010)	.013 (.037)
Transport constraints	-.041 (.045)	-.008 (.012)	-.025 (.045)
Electricity constraints	.112** (.046)	.000 (.012)	.105** (.046)
External auditor	.070* (.039)	-.003 (.011)	.066* (.039)
Innovation			
Website	-.101** (.040)	-.003 (.010)	-.085** (.040)
Quality certification	.061 (.041)	.010 (.011)	.054 (.041)
Legal status (RC: Partnership)			
Shareholding company with shares traded on the stock market	.078 (.094)	.051** (.020)	.064 (.093)
Sole proprietorship	.048 (.057)	-.020* (.015)	.067 (.057)
Limited 1	.012 (.042)	-.011 (.012)	.020 (.042)
Shareholding company with non-traded shares or shares traded privately	-.034 (.250)	-.062 (.071)	.021 (.248)
Sector (RC: Retail)			
Fabricated Metal Products	.090* (.054)	.017 (.014)	.076 (.054)
Food	.139** (.054)	.013 (.014)	.116** (.054)
Machinery & Equipment	.038 (.055)	.001 (.015)	.039 (.055)
Other Services	-.017 (.055)	.010 (.014)	-.014 (.055)
Other Manufacturing	.121** (.051)	.002 (.014)	.123** (.052)
Firm age log.	-.037 (.050)	-.064*** (.014)	.011 (.050)
(Constant)	.167** (.076)	.128*** (.020)	.057 (.076)
R Square Change	0.08	0.086	0.071
Number of observations	547	634	543

Standard errors in parentheses: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .



## 5. Discussion and Conclusions

Reporting data from 760 formal enterprises with five or more employees interviewed in Italy, the finding is that sixteen percent assert that they compete against unregistered or informal enterprises. These formal enterprises that compete against unregistered or informal enterprises display lower sales growth and productivity growth than those that do not, but not significantly lower annual employment growth. Consequently, this study in Italy provides some evidence to confirm the assumption that when formal enterprises have to compete with unregistered and informal sector enterprises, this has a negative effect on the firm performance of these formal enterprises.

This finding has important theoretical implications. On the one hand, it advances understanding of whether formal sector enterprises that have to compete against unregistered or informal sector business ventures suffer deleterious effects. Until now, the evidence on this issue has been confined to the countries of the developing world (Williams and Kedir, 2016, 2017; Williams *et al.*, 2017) and some transition economies (Williams and Bezeredi, 2018). This study reveals that in the developed world, namely Italy, formal sector enterprises that have to compete against unregistered or informal sector business ventures suffer deleterious effects in terms of annual sales growth and annual productivity growth rates, albeit not employment growth rates. Therefore, it appears it is not solely in the developing and transition economies that these deleterious effects arise because of the lack of benefits of formalization. Similar findings are apparent in this advanced economy. The tentative indication is that the benefits of informality outweigh the benefits of formality not only in developing and transition economies, but also in advanced economies.

This finding also has important policy implications. Until now, most governments have focused on increasing the costs of informality by increasing the penalties for operating informally and improving the risk of detection (Allingham and Sandmo, 1972; Williams, 2014). Perhaps greater emphasis now is required on improving the benefits of formality (Horodnic and Williams, 2019; Scott and Haskei, 2015). This could include providing formal enterprises with access to credit, training, marketing support (e.g., trade fairs), business advice and support, belonging to business associations, and new market opportunities such as contracts with large firms and public sector procurement contracts (Fajnzylber *et al.*, 2009; Skousen and Mahoney, 2015; Williams, 2019). There is also a need to improve the quality of governance, decrease public sector corruption and increase the level of government intervention, such as social protection, which have been shown to reduce unregistered and informal enterprises (Autio and Fu, 2015; Dau and Cuervo-Cazurra, 2014; Klapper *et al.*, 2007; Thai and Turkina, 2014). So too are improvements in formal institutions in terms of tax fairness, redistributive justice and procedural justice required. Tax fairness here refers to the extent to which entrepreneurs believe they pay a fair share relative to others (Wenzel, 2004), redistributive justice to whether they perceive they receive the goods and services they deserve for the taxes paid (Richardson and Sawyer, 2001) and procedural justice to whether they feel treated in a respectful, impartial and responsible way by the authorities (Braithwaite and Reinhart, 2000; Murphy, 2005).

Nevertheless, there are limitations to what can be concluded from this study. This is a study of just one advanced economy, namely Italy. It is unknown whether similar findings are valid in other advanced economies. This needs to be tested. Future research on other advanced economies could also include interviews with formal enterprises employing fewer than five employees, investigate the reasons enterprises operate unregistered and in the informal sector and the barriers that prevent them registering and formalizing.

In sum, this paper has provided new evidence that formal sector enterprises that have to compete against unregistered or informal sector enterprises suffer deleterious effects in terms of annual sales growth and annual productivity growth in an advanced economy. Therefore, it reveals that this is not solely a developing world or transition economy phenomenon. If this encourages similar research in other advanced economies, then a key intention of this paper will have been fulfilled. If this then results in evidence-based evaluations of the policy initiatives needed to formalize unregistered and informal enterprises, then the fuller intention of this paper will have been achieved.

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