This is a repository copy of *Explaining cross-national variations in the commonality of informal sector entrepreneurship: an exploratory analysis of 38 emerging economies*.

White Rose Research Online URL for this paper:
http://eprints.whiterose.ac.uk/82844/

Version: Accepted Version

**Article:**

https://doi.org/10.1080/08276331.2015.1004959

**Reuse**
Unless indicated otherwise, fulltext items are protected by copyright with all rights reserved. The copyright exception in section 29 of the Copyright, Designs and Patents Act 1988 allows the making of a single copy solely for the purpose of non-commercial research or private study within the limits of fair dealing. The publisher or other rights-holder may allow further reproduction and re-use of this version - refer to the White Rose Research Online record for this item. Where records identify the publisher as the copyright holder, users can verify any specific terms of use on the publisher’s website.

**Takedown**
If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.
Explaining cross-national variations in the commonality of informal sector entrepreneurship: an exploratory analysis of 38 emerging economies

The aim of this paper is to evaluate the contrasting explanations for the cross-national variations in the commonality of informal sector entrepreneurship. These variously view such work as: a result of economic under-development (modernisation thesis); driven by high taxes, corruption and state interference which lead them to exit the formal economy (neo-liberal thesis), or a product of inadequate state intervention to protect workers from poverty (political economy thesis). Analysing International Labour Organisation data on the proportion of the non-agricultural workforce engaged in informal sector entrepreneurship in 38 emerging economies, and data on the economic and social conditions deemed important in each explanation, a tentative call is made to reject the neo-liberal explanation and to synthesise the modernisation and political economy perspectives. The outcome is a new “neo-modernisation” explanation that associates greater levels of informal sector entrepreneurship with economic under-development and inadequate state intervention to protect workers from poverty. The paper concludes by discussing the theoretical and policy implications.

Keywords: entrepreneurship; informal economy; shadow economy; tax evasion; economic development; developing economies; transition economies.

Introduction

Since the turn of the millennium, there has been a growing recognition that
entrepreneurs sometimes operate partly or wholly in the informal sector, especially when starting-up business ventures (Antonopoulos and Mitra 2009; Bureau and Fendt 2011; Gurtoo and Williams 2009; Hudson et al. 2012; Ram et al. 2007; Small Business Council 2004; Valenzuela 2001; Webb et al. 2009; Williams 2006, 2008; Williams and Nadin 2013). The outcome has been a burgeoning literature that has variously sought to unpack the nature of entrepreneurship in the informal sector, examining issues such as the characteristics of informal entrepreneurs (Aidis et al. 2006; Mróz 2012; Williams 2006, 2010), their motives for operating informally (Chen 2012; Williams and Lansky 2013; Williams et al. 2012, 2013) and what might be done to facilitate their formalisation (Barbour and Llanes 2013; Dellot 2012; Williams and Nadin 2012). Until now, however, little attention has been paid to the commonality of informal entrepreneurship and how this varies cross-nationally. This paper seeks to fill that gap. Indeed, it is important to do so. Evaluating the cross-national variations in the proportion of the non-agricultural workforce employed in informal sector entrepreneurship not only enables one to begin to understand whether it is equally important everywhere, but more importantly, to unravel the broader economic and social conditions associated with higher levels of informal sector entrepreneurship and in doing so, to identify the broader reasons for its existence and how it might be addressed.

To start to do this, the first section of this paper will define informal entrepreneurship and briefly review what is known about it, focusing upon how its existence has been so far explained in terms of either economic under-development (modernisation explanation), higher taxes, corruption and state interference (neo-liberal explanation) or inadequate state intervention to protect workers from poverty (political economy explanation). Finding that although these contrasting explanations have been
evaluated critically when analysing informal entrepreneurship in particular countries as well as when analysing issues such as the gender variations in informal entrepreneurship, no studies have done so when explaining the cross-national variations in the level of informal entrepreneurship, this paper fills that gap. To achieve this, the second section introduces International Labour Organisation (ILO) data on the informal sector and informal employment, which can be used to estimate the commonality of informal sector entrepreneurship, but has not until now been used to do so, despite evidence being available for 38 emerging economies on the extent of informal sector entrepreneurship which uses the same broad definition and survey methodology. Alongside this, a range of development indicators are introduced that can be used to evaluate the validity of the competing explanations for the cross-national variations in its prevalence. The third section then reports the descriptive results on the cross-national variations in the scale of informal sector entrepreneurship followed in the fourth section by a preliminary analysis of the competing explanations for the variable prevalence of informal sector entrepreneurship. The fifth and final section then concludes by summarising the findings about the overall commonality of informal sector entrepreneurship and its cross-national variations, and makes a tentative call for a rejection of the neo-liberal thesis and a synthesis of the tenets of the modernisation and political economy theses in a new “neo-modernisation” explanation along with a discussion of the theoretical and policy implications of doing so.

Informal sector entrepreneurship: definitions and perspectives

Defining informal sector entrepreneurship

Given that this paper reports ILO data, informal sector entrepreneurship is here defined
using the widely accepted definitions of the informal sector and informal employment developed by the 15\textsuperscript{th} and 17\textsuperscript{th} International Conference of Labour Statisticians (ICLS) (Hussmans 2005; ILO 2011, 2012). As Table 1 displays, the informal sphere can be defined using either enterprises or jobs as the unit of analysis. If enterprises are used as the unit of analysis, then the informal sphere is defined in terms of “employment in the informal sector” (A+B) whilst if employment is the unit of analysis, then the informal sphere is defined in terms of “informal employment” (A+C).

INSERT TABLE 1 ABOUT HERE

To define informal sector entrepreneurship, this paper firstly uses enterprises as the unit of analysis to define the “informal sector” and secondly, employment as the unit of analysis to identify “entrepreneurs” who operate in the informal sector. Starting with the enterprise-based definition of the “informal sector”, the 15th International Conference of Labour Statisticians in 1993 defined the “informal sector” as private unincorporated enterprises that are unregistered or small in terms of the number of employed persons (Hussmans 2005). By an “unincorporated” enterprise is meant a production unit that is not constituted as a separate legal entity independently of the individual (or group of individuals) who owns it, and for which no complete set of accounts is kept. An enterprise is “unregistered”, meanwhile, when it is not registered under specific forms of national legislation (e.g., factories’ or commercial acts, tax or social security laws, professional groups’ regulatory acts). The issuing of a trade license or business permit under local regulations does not qualify as registration. An enterprise is considered small, meanwhile, when its size in terms of employment is below a specific threshold (e.g. five employees) determined according to national circumstances (Hussmans 2005;
Given that not everybody operating in the informal sector is an entrepreneur, the jobs-based definition of “informal employment” adopted by the 17th ICLS in 2003 is required to identify people working in the informal sector who might be considered entrepreneurs. Informal employment in this definition encompasses five categories of worker: (a) own-account workers and employers employed in their own informal enterprises; (b) members of informal producers’ cooperatives (not established as legal entities); (c) own-account workers producing goods exclusively for their own final use by their household (if considered employed given that the production comprises an important contribution to the total household consumption and is included in the national definition of employment); (d) contributing family workers in formal or informal enterprises; and (e) employees who are treated as informal employees if they are not covered by social security or are not entitled to other employment benefits. In this paper, only those in category (a), namely own-account workers and employers employed in their own informal enterprises are deemed to be “entrepreneurs”. Informal sector “entrepreneurs”, therefore, here include two groups: (i) own-account workers employed in their own informal sector enterprises or (ii) employers employed in their own informal sector enterprises (ILO 2011, 2012).

Using these widely-accepted and used ILO enterprise- and jobs-based definitions, therefore, informal sector entrepreneurs are defined as own-account workers or employers operating an unregistered and/or small unincorporated private enterprise engaged in the production of goods or services for sale or barter.

**Perspectives towards informal sector entrepreneurship**

Over the past decade or so, the entrepreneurship literature has recognised that many
entrepreneurs operate temporarily or permanently, and partly or wholly, in the informal sector (Antonopoulos and Mitra 2009; Bureau and Fendt 2011; Dana 1998; Gurtoo and Williams 2009; Hudson et al. 2012; Ram et al. 2006; Rezaei et al. 2013a,b, 2014; Small Business Council 2004; Valenzuela 2001; Webb et al. 2009, 2013, 2014; Williams 2006, 2008, 2009a,b; Williams and Nadin 2013). Reviewing this new sub-field of entrepreneurship scholarship focusing upon informal sector entrepreneurship, this literature has begun to identify a range of advantages and disadvantages of entrepreneurs operating in the informal sector. As Table 2 summarises, these advantages and disadvantages differ according to whether one observes informal sector entrepreneurship from the perspective of informal sector entrepreneurs, formal businesses, customers or government. Overall, however, the consensus which has emerged is that whatever viewpoint informal sector entrepreneurship is considered from, the disadvantages usually outweigh and the advantages, which at first resulted in a desire to eradicate informal sector entrepreneurship but more recently, and in recognition of its positive contributions, in a desire to facilitate the formalisation of informal sector entrepreneurship (Barbour and Llanes 2013; Chen 2012; Dana 2013; Dellot 2012; European Commission 2013; ILO 2013; Thai and Turkina 2013; Williams and Nadin 2012a,b).

In order to move towards identifying how this can be achieved, the literature on informal sector entrepreneurship has until now sought to identify the characteristics of informal entrepreneurs (Aidis et al. 2006; Dana 2010, 2013; De Castro et al. 2014; De Mel et al. 2012; Hudson et al. 2012; London et al 2014; Mróz 2012; Sookran and
Watson 2008; Williams 2006, 2010) and their motives for engaging in informal entrepreneurship, with a focus upon whether participation is a result of voluntary exit or involuntary exclusion from the formal sector (Adom 2014; Chen 2012; Kus 2014; Williams and Lansky 2013; Williams et al. 2012, 2013).

Until now, however, little attempt has been made to estimate the extent of informal sector entrepreneurship so as to understand the size of the problem along with whether and how this varies across populations. Although there have been small-scale studies which reveal that entrepreneurs are more likely to operate in the informal sector in deprived and rural localities than in affluent and urban localities (Dana 1995; Londo et al. 2014; Williams 2010) and that women entrepreneurs are less likely to operate in the informal sector than men (Williams and Martinez-Perez 2014), few studies have sought to evaluate how the extent of informal sector entrepreneurship varies between nations. One exception is Williams (2008) who reports surveys undertaken in Russia, Ukraine and England which find that 96 per cent, 51 per cent and 23 per cent of entrepreneurs operate in the informal economy respectively. The major problem, however, is that these findings are based on interviews with just 130 entrepreneurs in England, 331 in Ukraine and 81 in Moscow. The lack of understanding of the cross-national variations in the extent of informal entrepreneurship, therefore, is a major gap that needs to be filled.

There is also poor understanding of the reasons for engaging in informal sector entrepreneurship. Until now, three competing explanations have been put forward to explain participation in entrepreneurship in the informal sector. These variously explain informal sector entrepreneurship to be a result of either economic under-development (modernisation thesis), high taxes, public sector corruption and state interference in the free market which lead entrepreneurs to voluntarily exit the formal sector (neo-liberal
thesis) or inadequate state intervention to protect workers from poverty which results in informal entrepreneurship being pursued as a survival tactic by those involuntarily excluded from the formal sector (political economy thesis). Each is here considered in turn.

Modernisation thesis
For most of the twentieth century, a recurring assumption was that the modern formal sector was extensive and growing whilst the separate informal economy was small and gradually vanishing. Entrepreneurs operating in the informal sector, such as street hawkers, were consequently represented as a leftover from an earlier pre-modern mode of production and disappearing as they became incorporated into the modern formal sector. The existence of informal entrepreneurs in an economy was thus a sign of “traditionalism”, “under-development” and “backwardness” (Geertz, 1963; Gilbert, 1998; Lewis, 1959; Packard, 2007). From this perspective, therefore, informal sector entrepreneurship is a product of under-development and will disappear with economic advancement. Applying this to explaining the cross-national variations in the extent of informal entrepreneurship, it can be suggested that in less developed economies, measured in terms of GDP per capita, there will be a higher prevalence of informal sector entrepreneurship. To explore its validity, the following hypothesis can be tested:

Hypothesis 1: the prevalence of informal sector entrepreneurship will be greater in less developed economies measured in terms of their GDP per capita.

Neo-liberal perspective
For a neo-liberal school of thought, informal entrepreneurship is a direct product of high
taxes, a corrupt state system and too much interference in the free market, which leads entrepreneurs to make a rational economic decision to voluntarily exit the formal sector in order to avoid the costs, time and effort of operating formally (e.g., Becker 2004; De Soto 1989, 2001; London and Hart 2004; Nwabuzor 2005; Sauvy 1984; Small Business Council 2004). For neo-liberals, therefore, informal entrepreneurship is a rational economic response pursued by entrepreneurs whose spirit is stifled by high taxes and state-imposed institutional constraints (de Soto 1989, 2001; Perry and Maloney 2007; Small Business Council 2004). Informal entrepreneurship is thus an outcome of high taxes, corruption, over-regulation and state interference in the free market and the consequent solution is to pursue tax reductions, reduce corruption, deregulation and minimal state intervention. From this perspective, therefore, the extent of informal entrepreneurship should be greater in countries with higher taxes and public sector corruption and greater state interference. To explore the validity of this neo-liberal explanation, therefore, the following hypothesis can be tested:

Hypothesis 2: the prevalence of informal sector entrepreneurship will be greater in countries with higher tax rates, greater public sector corruption and higher levels of state interference in the free market.

Political economy perspective

For a school of political economy thought, in contrast, informal sector entrepreneurship is a direct product of the emergence of a de-regulated open world economy in which subcontracting and outsourcing have become a primary means of integrating informal entrepreneurship into contemporary capitalism, causing a further downward pressure on wages and the erosion of incomes, social services and benefits, and the growth of yet
more informal entrepreneurship (Castells and Portes 1989; Gallin 2001; Hudson 2005; Portes 1994; Sassen 1996; Slavnic 2010; Taiwo 2013). As Meagher (2010, p. 11) puts it, “Informal economic arrangements … have entered into the heart of contemporary economies through processes of subcontracting... and diminishing state involvement in popular welfare and employment”. Informal entrepreneurship is thus represented as an unregulated, insecure and low paid survival-driven endeavour conducted by populations excluded from the formal labour market (Castells and Portes 1989; Davis 2006; Gallin 2001; Hudson 2005; Sassen 1996; Taiwo 2013). Informal sector entrepreneurship is thus a result of a lack of state intervention in work and welfare provision, including social protection and social transfers, and direct product of poverty. In consequence, this practice is viewed as more prevalent in countries with inadequate state intervention to protect workers from poverty (Davis 2006; Gallin 2001; Slavnic 2010). To evaluate the validity of this political economy explanation, therefore, the following hypothesis can be tested:

Hypothesis 3: the prevalence of informal sector entrepreneurship will be greater in those countries with lower social transfers and lower levels of social protection to safeguard workers from poverty.

Evaluations of the competing perspectives

Conventionally, most explaining the prevalence of informal entrepreneurship in particular populations adopted just one of these perspectives. For example, Yamada (1996) adopts the neo-liberal perspective arguing that engagement in informal entrepreneurship is a matter of choice rather than a necessity as proposed by political economists. Recently, however, when explaining informal sector entrepreneurship at a
national or local level, or amongst particular population groups, a more nuanced understanding which combines these perspectives has begun to emerge. For example, it has been argued that the political economy perspective is more relevant to explaining informal entrepreneurship in relatively deprived population groups and the neo-liberal perspective to relatively affluent population groups (Evans et al., 2006; Gurtoo and Williams, 2009; Williams et al., 2012), that neo-liberal exit motives are more common in developed economies and political economy exclusion motives in developing economies (Oviedo et al. 2009) and that women are more likely to be driven by political economy exclusion rationales and men more commonly driven by neo-liberal voluntary exit rationales (Franck, 2012; Grant, 2013; Williams, 2009a,b; Williams and Round, 2009; Williams and Youssef, 2013). No studies, however, have yet evaluated the validity of these competing explanations when explaining cross-national variations in the commonality of informal sector entrepreneurship. This paper therefore seeks to fill that gap by evaluating each of the above hypotheses.

**Methodology: examining cross-national variations in the commonality of informal sector entrepreneurship**

To evaluate the cross-national variations in the commonality of informal sector entrepreneurship, three major datasets currently exist from which the extent of informal sector entrepreneurship in different countries could be potentially derived, but which until now have not been used. Firstly, there is the Global Entrepreneurship Monitor (GEM). Although this has a very broad coverage of countries and its definition of entrepreneurs includes formal and informal entrepreneurs, the problem is that it is not possible to distinguish formal from informal entrepreneurs based on any of the current
questions asked. It might be assumed that the questions relating to whether entrepreneurs are necessity- and/or opportunity-driven could be used as a proxy indicator. However, a multitude of in-depth national-level studies reveal that informal entrepreneurs are not always necessity-driven. This has been revealed in Brazil (Williams and Yousseff, 2013), Ghana (Adom and Williams 2012), India (Williams and Gurtoo 2012), UK (Williams 2010), Ukraine (Williams et al 2012) and Russia (Williams and Round 2009). Until such time as GEM introduces a question on whether entrepreneurs operate partly or wholly in the informal sector, therefore, the GEM database cannot be used to evaluate cross-national variations in informal entrepreneurship (see, however, Autio and Fu, 2014).

Secondly, the World Bank Doing Business surveys, as well as their Enterprise and Micro-Enterprise surveys, and a limited number of informal enterprise surveys, could be analysed to derive estimates of the cross-national variations in the commonality of informal sector entrepreneurship (World Bank 2013b). Until now, however, no attempt has been made to derive cross-national estimates, with the notable exception of Hudson et al (2012) who use such data to derive estimates of the magnitude and impacts of informal sector enterprise in south-east European nations.

Third and finally, the International Labour Organisation (ILO) has collated data on the magnitude of informal sector and informal employment in 47 countries (ILO, 2011, 2012). Until now, however, this dataset has not been used to estimate cross-national variations in the commonality of informal sector entrepreneurship, despite it being possible to derive data on its scale for 38 of these countries. This, therefore, is the intention in this paper. Future academic research could do the same with the World Bank surveys. The two datasets cannot be analysed together here, however, due to different definitions and methodologies used.
The advantage of using the ILO dataset is that the same common broad definition of informal sector entrepreneurship is used across all the emerging economies included and also a similar methodology. For each country, the Bureau of Statistics of the ILO sends a common questionnaire to all statistical offices of each country requesting for the national offices to complete detailed tables on statistics regarding the level of employment in the informal sector and informal employment. For each country to provide this data, either an ILO Department of Statistics questionnaire sent to countries or information from their national labour force or informal sector surveys are used (for further details, see ILO 2012). Here, the resultant findings on the cross-national variations in the commonality of informal sector entrepreneurship are reported for the first time. It is important to state, however, that these ILO surveys only relate to non-agricultural employment (i.e., agriculture, hunting, forestry and fishing is excluded). All the country surveys, moreover, adopt a definition of the informal sector and informal employment (and thus a definition of informal sector entrepreneurship) which conforms to the international definitions of the ILO discussed earlier, although some minor variation occurs across nations in terms of what constitutes “small” (e.g., employing less than five employees) and also unregistered due to different national-level laws applying. Furthermore, persons with more than one job are classified on the basis of what they self-report as their main job. As such, the data evaluated in this paper can be considered sufficiently comparable between countries.

To select statistical indicators on the characteristics that each theoretical perspective associates with higher levels of informal entrepreneurship, meanwhile, indicators are here taken from the World Bank development indicators database and the data used is for the year in which the survey of the informal sector and informal employment was conducted in each country (World Bank 2013a). The only indicator
and data taken from a non-official source is on perceptions of public sector corruption, extracted from Transparency International’s corruption perceptions index for the relevant year in each country (Transparency International 2013).

To evaluate the modernisation explanation, and akin to previous studies (ILO 2012; Yamada 1996), the indicator used is GNP per capita. To evaluate the neo-liberal explanation that higher levels of informal entrepreneurship result from high taxes, corruption and state interference in the free market, meanwhile, indicators previously used when evaluating this neo-liberal perspective when explaining cross-national variations in informal employment in Europe (Eurofound 2013; European Commission 2013; Williams 2013) are employed, namely the World Bank (2013a) country-level data on:

- Taxes on goods and services as a percentage of revenue, which includes general sales and turnover or value added taxes, selective excises on goods, selective taxes on services, taxes on the use of goods or property, taxes on extraction and production of minerals, and profits of fiscal monopolies;
- Taxes on income, profits and capital gains as a percentage of revenue, which includes taxes on the actual or presumptive net income of individuals, on the profits of corporations and enterprises and on capital gains, whether realized or not, on land, securities, and other assets. Intra-governmental payments are eliminated in consolidation.
- Taxes on revenue (excluding grants) as a percentage of GDP. Revenue is cash receipts from taxes, social contributions, and other revenues such as fines, fees, rent, and income from property or sales. Grants are also considered as revenue but are excluded here.
• Tax revenue as a percentage of GDP. Tax revenue refers to compulsory transfers to the central government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue.

In addition, the corruption tenet of the neo-liberal perspective is evaluated using:

• Transparency International’s Corruption Perceptions Index (CPI) (Transparency International 2013). This is a composite index of perceptions of public sector corruption that draws on 14 expert opinion surveys and scores nations on a 0-10 scale, with zero indicating high levels and 10 low levels of perceived public sector corruption.

To analyse the neo-liberal explanation that state interference leads to greater levels of informal entrepreneurship, along with the converse political economy explanation that it is due to inadequate levels of state intervention, the indicator analysed akin to previous studies on informal employment in Europe (European Commission 2013; Eurofound 2013; Williams 2013), is:

• Social contributions as a % of revenue. Social contributions include social security contributions by employees, employers, and self-employed individuals, and other contributions whose source cannot be determined. They also include actual or imputed contributions to social insurance schemes operated by governments.

Meanwhile, and to analyse the tenet of the political economy explanation that informal entrepreneurship is correlated with the existence of poverty, the variable analysed is the percentage of the population living below the national poverty line.

To analyse the relationship between cross-national variations in the
commonality of informal sector entrepreneurship and the economic and social characteristics that each theoretical perspective views as associated, and given the small sample size of just 38 countries and lack of necessary controls to include in a multivariate regression analysis, as well as the fact that individual-level data is not available in this data-set, it is only possible here to conduct bivariate regression analyses. To do this, Spearman’s rank correlation coefficient (r_s) is used due to the non-parametric nature of the data. As will be shown, despite the limitation of only using simple bivariate regression analysis, some meaningful findings are produced regarding the validity of the different theoretical perspectives.

Below, therefore, firstly the variable extent of informal entrepreneurship across the 38 emerging economies will be reported and secondly, a preliminary analysis of the wider economic and social conditions that each theoretical perspective deems to be associated with higher levels of informal sector entrepreneurship so as to evaluate the competing explanations.

Findings: cross-national variations in the commonality of informal sector entrepreneurship

Evaluating the findings for all the 38 emerging economies, Table 3 reveals that the simple unweighted average is that one-quarter (25.3 per cent) of the non-agricultural workforce engage in informal sector entrepreneurship as their main job. However, given the variable workforce size across countries, a weighted figure is here used. This reveals that across these 38 emerging economies, one in six (16.6 percent) of the non-agricultural workforce engage in informal sector entrepreneurship as their main job. This, therefore, is a significant proportion of all non-agricultural employment.
When the people they employ are included, furthermore, the finding is that just under one-third (31.5 per cent) of the workforce across these 38 countries are either informal sector entrepreneurs or their main job is in informal sector enterprises that these informal entrepreneurs operate. Entrepreneurship in the informal sector, therefore, is not some minor residue of little importance which resides in the margins of the economic landscape. One in six non-agricultural workers are informal entrepreneurs and nearly one in three workers are either informal entrepreneurs or work in informal sector enterprises. This, therefore, is a large realm that employs a significant share of the non-agricultural workforce in these countries.

However, there are some marked variations across global regions in the commonality of informal entrepreneurship. To analyse this, the 38 countries are divided, using the World Bank (2013a) classification into six regions (see Table 4 below for details). The finding is that the weighted proportion of the non-agricultural workforce in informal sector entrepreneurship as their main job ranges from over one-quarter (26.1 per cent) of the non-agricultural workforce in sub-Saharan Africa, through just under one in four (22.7 per cent) in Latin America and the Caribbean to under one in ten (8.5 per cent) in Europe and Central Asia. The share of the non-agricultural workforce engaged in informal sector entrepreneurship as their main job, therefore, is not evenly distributed globally. Neither is the proportion working in informal enterprises, which ranges from 38.8 per cent of the non-agricultural workforce in sub-Saharan Africa to 20.6 per cent in Europe and Central Asia.

As Table 4 reports, there are also cross-national variations in the proportion of the non-agricultural workforce engaged in informal sector entrepreneurship, ranging
from 58.5 per cent of the non-agricultural workforce in Mali to 2.3 per cent in Serbia. Analysing how countries within each global region are spread across the spectrum, moreover, the finding is that although sub-Saharan countries are generally clustered amongst the countries with the highest levels of informal sector entrepreneurship and European and Central Asian countries are clustered among the countries with the lowest levels, with Latin American and Caribbean countries, South Asian as well as East Asian and Pacific countries somewhere in between, although there are many exceptions.

**INSERT TABLE 4 ABOUT HERE**

Table 4 also reveals that informal enterprises employ the majority of the non-agricultural workforce in 16 (42 per cent) of the 38 nations. Informal sector entrepreneurship and the employment created by such informal entrepreneurs, in consequence, is not some small segment of the labour market of limited importance. However, there are again marked cross-national variations in the proportion of the non-agricultural workforce which has their main job in informal enterprises either as informal entrepreneurs or employees. This ranges from 73 per cent in Pakistan and 71.4 per cent in Mali to 7.0 per cent in Moldova and 3.5 per cent in Serbia. How, therefore, can these cross-national variations in the scale of informal sector entrepreneurship be explained?

**Analysis: evaluating the competing explanations for the cross-national variations in informal sector entrepreneurship**

To explain these cross-national variations in the commonality of informal sector entrepreneurship, a preliminary analysis of the validity of each of the three theorisations is here undertaken. Firstly, and to evaluate the modernisation thesis that informal
entrepreneurship is lower in “developed” wealthier economies and greater in “less developed” economies, the association between the cross-national variations in the commonality of informal entrepreneurship and GNP per capita across these 38 countries is analysed. As Figure 1 reveals, and using Spearman’s rank correlation coefficient due to the nonparametric nature of the data, there is a strong significant relationship within a 99 per cent confidence interval (i.e., at the 0.01 level) between the commonality of informal sector entrepreneurship and its level of GNP per capita ($r_s = -0.437**$). The direction of this relationship is that the proportion of the non-agricultural workforce operating as informal sector entrepreneurs is greater in countries with lower levels of GNP per capita, thus validating the modernisation hypothesis that the prevalence of informal sector entrepreneurship is a product of economic under-development measured in terms of their GDP per capita. This is similar to previous findings (ILO 2012; Yamada 1996). Akin to this study, however, these studies cannot establish the directionality of the correlation in terms of a cause-effect relationship. This, therefore, is a limitation of both the current and previous studies.

**INSERT FIGURE 1 ABOUT HERE**

To evaluate the neo-liberal hypothesis, meanwhile, the correlation between cross-national variations in the scale of informal sector entrepreneurship and taxes, corruption and state interference need to be analysed (see Figures 2-6). Starting with the neo-liberal assertion that informal entrepreneurship is more prevalent where the perception of public sector corruption is greater since this leads citizens to exit the formal economy in order to pursue means of livelihood beyond the reach of corrupt public sector officials, Figure 2 reveals no statistically significant relationship between higher
perceived levels of public sector corruption and higher levels of informal entrepreneurship ($r_s = -0.296$). Consequently, support is not found for the neo-liberal tenet that informal sector entrepreneurship is a result of “exit” from the formal economy to escape public sector corruption.

INSERT FIGURES 2,3,4,5 AND 6 ABOUT HERE

Given the centrality of the argument to neo-liberal discourse that informal sector entrepreneurship is a direct product of high taxes which cause entrepreneurs to exit the formal economy, four different measures of taxation levels are here analysed. Commencing with the relationship between the cross-national variations in the scale of informal sector entrepreneurship and the level of taxes on goods and services as a percentage of revenue, Figure 3 reveals no statistically significant relationship ($r_s = -0.181$). Examining the relationship between the commonality of informal sector entrepreneurship and the level of taxes on income, profits and capital gains as a proportion of revenue, however, Figure 4 indeed reveals that the higher the level of taxes on income, profits and capital gains, the greater is the scale of informal sector entrepreneurship, and this is statistically significant at the 0.05 level ($r_s = 0.414^*$). Here, therefore, support is found for the neo-liberal thesis that informal sector entrepreneurship is a result of exit from the formal economy due to high tax rates.

This is not the case, however, when two further measures of tax levels are analysed. As Figure 5 graphically displays, there is a strong significantly correlation at the 0.01 level between cross-national variations in the level of taxes on revenue (excluding grants) as a share of GDP and the commonality of informal sector entrepreneurship ($r_s = -0.604^{**}$). The prevalence of informal sector entrepreneurship is significantly lower in countries where taxes on revenue are a higher proportion of GDP.
Similarly, Figure 6 displays a similar strong statistically significant relationship at the 0.01 level between the commonality of informal entrepreneurship and cross-national variations in the level of tax revenue as a proportion of GDP ($r_s = -0.585^{**}$). Again, informal sector entrepreneurship is significantly lower in countries where the level of tax revenue as a proportion of GDP is higher.

There is thus no evidence that cross-national variations in the scale of informal sector entrepreneurship are associated with levels of public sector corruption and thus that informal entrepreneurship is driven by a desire to “exit” the formal economy due to public sector corruption. Neither is sufficient evidence found to validate the neo-liberal thesis that higher tax rates result in exit from the formal economy into informal sector entrepreneurship. If anything, the inverse is the case. On those tax indicators which display a strong statistical significance at the 0.01 level, higher tax levels are correlated with lower levels of informal sector entrepreneurship. This is presumably because higher tax levels provide more state revenue for social transfers in order to provide social protection for citizens.

To evaluate this, and therefore whether the neo-liberal argument is valid that greater state interference results in greater informal entrepreneurship or whether informal entrepreneurship reduces with greater state intervention, as the political economists assert, Figure 7 examines the relationship between cross-national variations in informal entrepreneurship and the level of social contributions as a percentage of revenue. This reveals that as social contributions rise as a share of revenue, there is a decline in informal sector entrepreneurship. This is statistically significant at the 0.05 level ($r_s=-0.524^*$), thus refuting the neo-liberal thesis that state interference leads to greater informal entrepreneurship and validating the political economy thesis that
informal sector entrepreneurship is associated with too little state intervention in the form of the provision of social protection.

**INSERT FIGURES 7 AND 8 ABOUT HERE**

The political economy tenet that the cross-national variations in informal sector entrepreneurship are associated with the level of poverty is also supported. As Figure 8 reveals, a strong statistically significant relationship exists between cross-national variations in the proportion of the population living below the national poverty line and the level of informal sector entrepreneurship. The greater is the share of the population living below the national poverty line, the higher is the level of informal sector entrepreneurship and this is strongly statistically significant at the 0.01 level ($r_s=.466^{**}$), intimating that informal sector entrepreneurship may well be an endeavour of last resort turned to by populations in the absence of alternative means of livelihood, as the political economists assert.

**Conclusions**

Analysing the results of ILO surveys conducted in 38 emerging economies, this paper has revealed that one in six (16.6 per cent) of the non-agricultural workforce are informal entrepreneurs and that the main job of just under one in three (31.5 per cent) of the non-agricultural workforce is in informal enterprises as either informal sector entrepreneurs or employees. Nevertheless, marked cross-national variations exist. Not only does the scale of informal entrepreneurship range from 58.5 per cent of the non-agricultural workforce in Mali to 2.3 per cent in Serbia, but there are similar variations in the proportion of the non-agricultural workforce employed in their main job in
informal enterprises. In 16 (42 per cent) of the 38 countries surveyed, nevertheless, over half of the non-agricultural workforce has their main job in informal enterprises either as informal entrepreneurs or employees. Informal sector entrepreneurship and the employment created by informal entrepreneurs, in consequence, is not some small segment of the labour market in these countries of marginal importance.

Turning to an exploratory analysis of the reasons for these cross-national variations in the commonality of informal sector entrepreneurship, three competing explanations have been critically evaluated which argue that higher levels of informal entrepreneurship are associated with economic under-development (modernisation thesis), higher taxes, corruption and state interference (neo-liberal thesis) and/or inadequate state intervention to protect workers from poverty (political economy thesis). This has revealed that although the modernisation thesis tentatively appears to be valid that informal entrepreneurship is a product of economic under-development, the neo-liberal assumptions that it is a product of public sector corruption and high taxes are not validated. Instead, the bivariate regression analyses tentatively support the political economy view that high taxes and social transfers reduce the commonality of informal entrepreneurship due to reducing the necessity to enter such work in the absence of other means of support and livelihood, but also that informal sector entrepreneurship is closely associated with the level of poverty in a society.

The outcome is a call to reject the neo-liberal hypothesis (H2) and tentative call for an acceptance of the modernisation and political economy hypotheses (H1 and H3) and their synthesis in a new “neo-modernisation” perspective that explains lower levels of informal entrepreneurship as associated with economic development and state intervention in the form of higher tax rates and social transfers to protect workers from poverty. What is now required is to evaluate whether this neo-modernisation thesis
holds across a wider range of nations as well as when time-series data is analysed for individual countries. This could usefully be explored in future research using for example the World Bank Doing Business and Enterprise surveys. If possible, this needs to be done using multivariate regression analysis and on a larger sample size to determine how important each characteristic is to the final outcome whilst controlling for the other characteristics. The major barrier to doing this, nevertheless, is the lack of availability of data to allow such analyses.

This relationship between the commonality of informal sector entrepreneurship and under-development, low tax rates and inadequate state protection to safeguard workers from poverty also has clear practical policy implications. Conventionally, the policy debate on tackling informal entrepreneurship has been over whether targeted repressive measures and/or targeted incentives are the most appropriate means for facilitating formalisation (Dibben and Williams, 2012; Eurofound, 2013; Feld and Larsen, 2012; OECD, 2012; Williams and Lansky, 2013; Williams and Nadin, 2012; Williams et al., 2013). This paper, however, displays that broader economic and social policy measures are also important. The overarching modernisation of economies, tax rates, social protection and poverty alleviation are all closely associated with informal entrepreneurship. Tackling informal sector entrepreneurship, therefore, does not only require the development of targeted policy measures but also appropriate wider economic and social policies. In other words, targeted policy measures tailored to facilitating formalisation might be necessary but appear insufficient for tackling employment in the informal economy. Again, whether the same policy implication emerges when a wider range of countries are investigated, as well as whether it remains valid when time-series data is investigated for individual countries, needs to be
analysed, such as by using the World Bank Doing Business, Enterprise, Micro-
Enterprise and Informal Enterprise surveys (World Bank, 2013b).

In sum, this paper has revealed the commonality of entrepreneurship in the informal sector across 38 emerging economies and revealed that the marked cross-
national variations in the prevalence of informal sector entrepreneurship is associated with the level of GNP per capita, tax rates, level of social contributions and poverty rates. What is now required is for this to be applied longitudinally within countries as well as to a broader range of countries, using more refined multivariate regression analysis, so as to evaluate whether the relationship holds as well as which characteristics are most significantly correlated with higher levels of informal sector entrepreneurship. This could then lead to a cluster analysis of the countries displaying a greater propensity to informalisation. If this paper stimulates research to produce such data-sets in order to allow these analyses and also recognition and investigation of the broader economic and social policies required if informal sector entrepreneurship is to be tackled, then it will have achieved its objective.

References


Autio, E. and K. Fu. 2014. “Economic and political institutions and entry into formal and informal entrepreneurship.” Asian Pacific Management Journal, doi 10.1007/s10490-014-9381-0.


Table 1 A typology of the informal sphere

<table>
<thead>
<tr>
<th>Economic units</th>
<th>Informal jobs</th>
<th>Formal jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal economic units</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Formal economic units</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

Source: ILO (2012)
<table>
<thead>
<tr>
<th>Disadvantages</th>
<th>Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For informal sector entrepreneurs:</strong></td>
<td><strong>For formal entrepreneurs:</strong></td>
</tr>
<tr>
<td>Lack of access to credit and financial services, partly due to limited credit history.</td>
<td>Results in an unfair competitive advantage for informal over formal entrepreneurs</td>
</tr>
<tr>
<td>Difficulty in expanding a business which cannot be openly advertised.</td>
<td>Results in de-regulatory cultures enticing law-abiding entrepreneurs into a ‘race to the bottom’ away from regulatory compliance</td>
</tr>
<tr>
<td>May face higher barriers of entry to the formal market on account of an inability to provide employment history to back up their skills.</td>
<td>Results in ‘hyper-casualisation’ as more legitimate entrepreneurs are forced into the informal economy to compete</td>
</tr>
<tr>
<td>May face higher barriers of entry to the formal market on account of an inability to provide employment history to back up their skills.</td>
<td>For customers:</td>
</tr>
<tr>
<td>For governments:</td>
<td>Lack legal recourse if a poor job is done, insurance cover; guarantees in relation to the work conducted, and certainty that health and safety regulations have been followed.</td>
</tr>
<tr>
<td>Causes a loss of revenue for the state in terms of non-payment of taxes owed</td>
<td>For governments:</td>
</tr>
<tr>
<td>Reduces state’s ability to achieve social cohesion by reducing the money available to governments to pursue social integration and mobility</td>
<td>‘On the job’ training in informal enterprises alleviates pressure on the state and its agencies during times of reduced public spending.</td>
</tr>
<tr>
<td>Leads to a loss of regulatory control over work conditions and service provision in the economy</td>
<td>Breeding ground for the micro-enterprise system</td>
</tr>
<tr>
<td>Such endeavour may encourage a casual attitude towards the law more widely</td>
<td>Test-bed for fledgling businesses</td>
</tr>
</tbody>
</table>

Source: derived from Llanes and Barbour (2013), Williams (2006) and Williams and Nadin (2012b)
Table 3 Informal entrepreneurs as % of non-agricultural employment (unweighted and weighted): by global region

<table>
<thead>
<tr>
<th>Global region</th>
<th>Informal entrepreneurs as % of non-agricultural employment, (% of non-agricultural workforce in informal sector enterprises in parentheses), unweighted</th>
<th>Informal entrepreneurs as % of non-agricultural employment (% of non-agricultural workforce in informal sector enterprises in parentheses), weighted</th>
<th>No of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia &amp; Pacific</td>
<td>24.1 (49.5)</td>
<td>18.6 (33.7)</td>
<td>4</td>
</tr>
<tr>
<td>Europe and Central Asia</td>
<td>7.7 (15.6)</td>
<td>8.5 (20.6)</td>
<td>5</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>27.6 (40.6)</td>
<td>22.7 (33.3)</td>
<td>16</td>
</tr>
<tr>
<td>Middle East &amp; North Africa</td>
<td>11.1 (23.2)</td>
<td>11.1 (21.8)</td>
<td>1</td>
</tr>
<tr>
<td>South Asia</td>
<td>28.4 (63.7)</td>
<td>10.0 (28.6)</td>
<td>3</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>32.0 (48.0)</td>
<td>26.1 (38.8)</td>
<td>9</td>
</tr>
<tr>
<td>All global regions</td>
<td>25.3 (40.6)</td>
<td>16.6 (31.5)</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: derived from ILO (2012)
Table 4 Cross-national variations in the percentage of the non-agricultural workforce engaged in informal sector entrepreneurship as their main job

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>% of non-agricultural workforce engaged in informal sector entrepreneurship as their main job</th>
<th>% of all main jobs in the non-agricultural sector in informal sector enterprises</th>
<th>Global region (World Bank classification)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mali</td>
<td>2004</td>
<td>58.5</td>
<td>71.4</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>Liberia</td>
<td>2010</td>
<td>42.5</td>
<td>49.5</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2005/6</td>
<td>41.5</td>
<td>51.7</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>Colombia</td>
<td>2010</td>
<td>37.9</td>
<td>52.2</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Uganda</td>
<td>2010</td>
<td>36.9</td>
<td>59.8</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>Honduras</td>
<td>2009</td>
<td>36.6</td>
<td>58.3</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Peru</td>
<td>2009</td>
<td>34.8</td>
<td>49.0</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Zambia</td>
<td>2008</td>
<td>34.6</td>
<td>64.4</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>2004</td>
<td>33.9</td>
<td>41.4</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>El Salvador</td>
<td>2009</td>
<td>33.5</td>
<td>53.4</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>2009</td>
<td>33.2</td>
<td>54.4</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2009/10</td>
<td>32.9</td>
<td>73.0</td>
<td>South Asia</td>
</tr>
<tr>
<td>Bolivia</td>
<td>2006</td>
<td>32.4</td>
<td>52.1</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>India</td>
<td>2009/10</td>
<td>31.7</td>
<td>67.5</td>
<td>South Asia</td>
</tr>
<tr>
<td>Venezuela</td>
<td>2009</td>
<td>30.6</td>
<td>36.3</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2009</td>
<td>28.4</td>
<td>60.2</td>
<td>East Asia &amp; Pacific</td>
</tr>
<tr>
<td>Philippines</td>
<td>2008</td>
<td>26.8</td>
<td>72.5</td>
<td>East Asia and Pacific</td>
</tr>
<tr>
<td>Madagascar</td>
<td>2005</td>
<td>26.8</td>
<td>51.8</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2009</td>
<td>26.4</td>
<td>43.5</td>
<td>East Asia &amp; Pacific</td>
</tr>
<tr>
<td>Dominican rep</td>
<td>2009</td>
<td>26.2</td>
<td>29.4</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Panama</td>
<td>2009</td>
<td>25.1</td>
<td>27.7</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Uruguay</td>
<td>2009</td>
<td>23.9</td>
<td>33.9</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Paraguay</td>
<td>2009</td>
<td>23.8</td>
<td>37.9</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>2009</td>
<td>23.3</td>
<td>37.0</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Ecuador</td>
<td>2009</td>
<td>22.7</td>
<td>37.3</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Argentina</td>
<td>2009</td>
<td>21.9</td>
<td>32.1</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>2009</td>
<td>20.8</td>
<td>59.2</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2009</td>
<td>20.6</td>
<td>50.5</td>
<td>South Asia</td>
</tr>
<tr>
<td>Mexico</td>
<td>2009</td>
<td>19.1</td>
<td>34.1</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>Brazil</td>
<td>2009</td>
<td>17.3</td>
<td>24.3</td>
<td>Latin America &amp; Caribbean</td>
</tr>
<tr>
<td>China</td>
<td>2010</td>
<td>14.9</td>
<td>21.9</td>
<td>East Asia &amp; Pacific</td>
</tr>
<tr>
<td>West Bank &amp; Gaza</td>
<td>2010</td>
<td>11.1</td>
<td>23.2</td>
<td>Middle East &amp; North Africa</td>
</tr>
<tr>
<td>South Africa</td>
<td>2010</td>
<td>10.9</td>
<td>17.8</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>Moldova Rep</td>
<td>2009</td>
<td>6.6</td>
<td>7.3</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Armenia</td>
<td>2009</td>
<td>4.9</td>
<td>10.2</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Macedonia</td>
<td>2010</td>
<td>3.9</td>
<td>7.6</td>
<td>Europe &amp; Central Asia</td>
</tr>
<tr>
<td>Lesotho</td>
<td>2008</td>
<td>2.7</td>
<td>49.1</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>Serbia</td>
<td>2010</td>
<td>2.3</td>
<td>3.5</td>
<td>Europe &amp; Central Asia</td>
</tr>
</tbody>
</table>

Source: derived from ILO (2012)
Figure 1 Relationship between informal entrepreneurship and GDP per capita

Figure 2 Relationship between informal entrepreneurship and public sector corruption

Figure 3 Relationship between informal entrepreneurship and taxes on goods and services
Figure 4 Relationship between informal entrepreneurship and taxes on income, profits and capital gains

Figure 5 Relationship between informal entrepreneurship and taxes on revenue (excluding grants) as % of GDP

Figure 6 Relationship between informal entrepreneurship and tax revenue as % of GDP
Figure 7 Relationship between informal entrepreneurship and social contributions as % of revenue

Figure 8 Relationship between informal entrepreneurship and % of population living below poverty line