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Culture's influences: An investigation of inter-country differences in capital structure

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Abstract

Employing firm-level observations from 13 countries over a seven year period, and controlling for an extensive set of firm-level characteristics, industry effects and country-level institutional variables, we provide a conceptual framework and empirical analysis of how culture influences capital structure in small and medium sized enterprises (SMEs). Uncertainty avoidance and individuality are negatively related with long-term debt, highlighting SME owners desire to avoid heightened business risk, reduce interference from debt providers, and maintain autonomy and independence. Negative relationships between power distance and debt suggest a more consultative role with financial institutions, facilitating greater access to debt. Policy makers should take account of the powerful consequences of cultural influences when designing and implementing financing initiatives.

Keywords: Capital structure; SME financing; Hofstede's cultural values; Europe

1. Introduction

Over fifty years since the publication of the Modigliani and Miller (1958) irrelevance propositions, many studies have investigated the elusive 'optimal' capital structure. This voluminous literature has predominantly focused on public, nonfinancial corporations with access to United States or other international capital markets (Myers, 2001). Notwithstanding the importance of small and medium sized enterprises (SMEs) to national economies, the subject of SME financing has received relatively less attention. This deficit in the literature has been somewhat ameliorated in recent decades, with early studies emerging primarily from the UK (Chittenden, Hall, & Hutchinson, 1996) and the US (Balakrishnan & Fox, 1993). Subsequent studies have emerged from a growing number of countries, including Portugal (Esperanca, Gama, & Gulamhussen, 2003), Belgium (Heyman, Deloof, & Ooghe, 2008; Manigart & Struyf, 1997), Spain (Garcia-Teruel & Martinez-Solano, 2007; Sogorb Mira, 2005), Italy (Giudici & Paleari, 2000), Sweden (Berggren, Olofsson, & Silver, 2000; Cressy and Olofsson, 1997), Taiwan (Fu, Ke, & Huang, 2002), India (Ghosh, 2007), Germany (Audretsch & Elston, 1997; Elsas & Krahnen, 1998; Fritsch, 1993), Australia (Cassar & Holmes, 2003; Fitzsimmons & Douglas, 2006), and Ireland (Mac An Bhaird & Lucey, 2010). Whilst this research has been extended to comparative international studies (Bancel & Mittoo, 2004; Daskalakis & Psillaki, 2008; Hall, Hutchinson, & Michaelas, 2004; Peterson & Schulman, 1987), there is

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little or no research on the influence of national culture on capital structure. Investigation of the influence of culture in the SME literature has been confined to studies on *enterprise* (Gray, 1998) and as a 'spur' for innovation and growth (Bradley & Kennelly, 2008).

Empirical studies of SME financing typically test propositions of capital structure theories developed in the field of corporate finance by investigating firm characteristic determinants of short-term, long-term and total debt ratios. Cross-country comparative studies test similar firm characteristic determinants, although a number of studies examine other factors, such as the effect of creditor rights and legal origin (Hall & Jorgensen, 2005) and the effect of legal determinants on external finance (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998). Results from these studies suggest a number of similar inter-country factors in financing SMEs; for example, Daskalakis and Psillaki (2008) conclude that firm effects are more important than country effects, attributing similarities in determinants of capital structure to the commonality of institutional characteristics of the two countries studied. On the other hand, Hall et al. (2004: p. 726) find "variations in both capital structure and the determinants of capital structure between the countries surveyed .... [which] could well be due to differences in attitudes to borrowing, disclosure requirements, relationships with banks, taxation and other national economic, social and cultural differences".

Whilst the suggestion of potential cultural influence on SME financing is unusual, culture is a key dimension in many fields of business and finance. In addition to its influence on whole financial systems (e.g. Islamic finance), culture has been shown to impact on commodity and services trade, corporate transparency, foreign direct investment, mergers and acquisitions, the modality of market entry, and managerial control (Bushman, Piotroski, & Smith, 2004; Demirbag, Glaister, & Tatoglu, 2007; Grinblatt & Keloharju, 2001; Harzing & Joseph, 2003; Hitt, Franklin, & Zhu, 2006; Kaufmann & O'Neill, 2007; Kirkman, Lowe, & Gibson, 2006; Kogut & Singh, 1988; Kwok & Tadesse, 2006; Sekely & Collins, 1988; Slangen, 2006; Tihanyi, Griffith, & Russell, 2005). Research in the corporate finance capital structure literature also investigates the influence of cultural variables on international capital structure (Chui, Lloyd, & Kwok, 2002; Gleason, Mathur, & Mathur, 2000; Kwok & Tadesse, 2006; Sekely & Collins, 1988). These studies suggest that national culture may be an important "missing piece" to the capital structure puzzle (Chui et al., 2002). In spite of this, however, research on the determinants of capital structure in the SME literature has largely ignored the cultural dimension, even though culture may be a more important element in the SME sector. This is because, whilst the influence of the cultural dimension in the corporate sector may be somewhat diluted because of international aspects of ownership and financial markets, the implications of culture are much more powerful in the SME sector. This is due to the closely held ownership structure of firms in the sector, and because SMEs generally access local sources of financing.

In this paper, we seek to add to the literature by investigating the role of culture in explaining the capital structure of SMEs. A number of specific research questions are posed:

a. Do capital structures differ across countries?
b. To what extent is capital structure determined by firm characteristics, and industry sector?
c. What are the inter-country differences in firm characteristic, and sectoral effects?
d. Controlling for firm and industry effects, to what extent is capital structure determined by (3) institutional factors, and (4) cultural factors.

The remainder of our paper is structured as follows. In Section 2, we describe Hofstede's measures of cultural relativism and formulate hypotheses. In doing so, we focus particularly on the role of culture and other variables that are related to culture. In Section 3, we present our data, describe our methodology and formalise our tests. Section 4 contains our findings and Section 5 draws together our conclusions.

2. Culture and capital structure in related research

Hofstede and Hofstede (2005: p. 4, p. 434) state that "…Culture consists of the unwritten rules of the social game. It is the collective programming of the mind that distinguishes the members of one group or category of people from the others". By studying organisations in a wide number of countries, Hofstede (2001) developed a number of measures of culture, including power distance, individuality, masculinity, uncertainty avoidance, and short- and long-term orientation. He employed these measures in investigating cultural relativism, which explores "…cultural differences between societies, their roots, and their consequences" (Hofstede & Hofstede, 2005: p. 6, p. 434). Whilst these measures have been employed in a large number of studies across a wide range of disciplines, they have not been previously considered in empirical SME financing research. Each measure is now considered in turn:

2.1. Power distance

Power distance scores inform us about *dependence* relationships in a country. It is defined as the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally. (The way power is distributed is usually explained from the behaviour of the *more* powerful members — the leaders rather than those led). In those countries with a high power distance score, there is more deference to authority. Banks could be thought of as being the more powerful organisation, with SMEs being the weaker, subordinate organisation (After all, the SMEs go to the banks requesting funding — banks are in the position of authority). Chui et al. (2002) find that higher degrees of Schwartz and Sagiv's (1995) 'mastery' (which could approximate Hofstede's power distance) are associated with lower debt ratios. Additionally, in small power distance states "subordinates expect to