Guts, grit and God? Spiritual capital and entrepreneurial resilience in a turbulent environment

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Abstract

This paper investigates the role of spiritual capital in a turbulent sub-Saharan African context, where religion plays a dominant role in society and firms are grappling with macro-economic shocks and institutional instability recently exacerbated by covid-19 pandemic. The study draws from a survey of 622 firms in one of Africa's biggest business hubs – Lagos, Nigeria. The results show that spiritual capital significantly mediates the impact of social capital on entrepreneurial resilience, helping entrepreneurs to cope in unstable and difficult terrain. The study highlights the significance of spiritual capital as a distinct resource complimenting other intangible resources such as social capital.

Introduction

The focus of this study is on the link between spiritual capital as an intangible resource and entrepreneurial resilience as its outcome, particularly in a turbulent business environment. Much of the scholarly research on entrepreneurship and small business development has focused on understanding the unique personal attributes and characteristics of the entrepreneur; their drive and motivation; and how they mobilise resources to overcome challenges, recognise opportunities, and create and capture value. The resource based view of the firm distinguishes between tangible and intangible resources that owner/managers deploy to create and capture value (Connor, 2002; Heirman & Clarysse, 2007). In order to achieve and maintain competitive advantage, such resources, or assets, also need to be *valuable, rare, inimitable, and non-*

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substitutable (Lockett et al., 2009). While the resource based view essentially takes the firm as the principal unit of analysis, there is widespread recognition among scholars of the role of owner/managers as operational gatekeepers of firm strategy for resource mobilisation and deployment (Connor, 2002).

Given the foregoing, our study takes the resource-based view as a broad theoretical starting point, with a focus on intangible resources. Intangible assets are broadly defined as invisible, non-physical sources of economic benefit to an entity (Kristandl & Bontis, 2007). Among others, they comprise human, structural and relational resources, and they can be formally or informally owned, mobilised and deployed (MERITUM, 2002). In other words, the resource based view theory distinguishes between human capital as an intangible resource that individuals acquire and take with them when they leave the firm, and structural and relational capital as intangible resources that effectively stays with the firm. However, none of the existing classifications has adequately explained the phenomenon of spiritual capital, which we investigate in our present study.

In this paper, we emphasize two under-explored perspectives. First, we use individual entrepreneurs as our unit of analysis. Secondly, and following on from the first, we focus our attention on entrepreneurial resilience, rather than firm competitiveness, as the main outcome. Finally, in terms of our empirical strategy, we focus on a turbulent sub-Saharan African context of Lagos Nigeria, where entrepreneurs are grappling with challenges associated with political instability as well as increasing threats of physical danger and violence.

Increasingly, businesses in the 21st century have to grapple with the challenges of operating in turbulent environments characterised by market volatility, political instability, natural disasters and terrorism (Gerde & Michaelson, 2016; McKnight & Linnenluecke, 2019). These challenges are particularly acute in developing countries and transition economies, where institutional weaknesses typically exacerbate environmental turbulence (Barin Cruz et al., 2016; Khoury &

Prasad, 2016; Welter et al., 2011). In response to the challenges posed by turbulent environments, entrepreneurs deploy intangible resources to adapt, survive and compete. One of such intangible resources, which has received significant attention in the literature, is social capital. It is accepted in the literature that social capital helps in shaping entrepreneurial and firm-level resilience to environmental constraints ((Cope, Jack, & Rose, 2007). As noted by Pirolo and Presutti (2010) and Oyelaran-Oyeyinka, (2007), it is common for firms and entrepreneurs to mobilise resources from networks of relationships with other firms, suppliers and customers in order to cope with uncertainties, unpredictability and other challenges arising from doing business in turbulent environments.

Recently, there has been an interest in the role of spiritual capital as an intangible resource employed by firms to build resilience in various institutional and business contexts (Astrachan et al., 2020; Kavas et al., 2019; Rocha & Pinheiro, 2020). In this sense, spiritual capital is defined as "the set of personal, intangible, and transcendent resources that emanate from an individual's spiritual or religious beliefs and experiences and may be used in economic activity" (Neubert *et al.*, 2015, p.2). Building on from Neubert *et al.*, (2015), we note that previously, there was a reluctance among scholars outside sociology and psychology to engage with the notion of spirituality. As Henley (2017) noted, scholars have been reluctant to investigate the role of spirituality and religion on entrepreneurship, partly due to perceived insufficient grounding in social theory, and also due to pluralist perspectives and post-secular reconstructions of the societal role of religion in the 21st century world. These perspectives do not, among others, adequately account for religion as an expression of culture and a source of institutional munificence. They also ignore the critical role played by religious institutions as substitute-formal structures in countries and contexts characterised by institutional instability.

In the past two decades, interest has grown on the subject among business and management scholars, with increasing recognition of the role that spirituality play in business and organisational contexts(e Cunha et al., 2006; Rocha & Pinheiro, 2020; Van Buren et al., 2020). This is viewed in terms of ultimate values, optimal human development, transcendence of ego boundaries, and spiritual pscyhologies (Butts, 1999). Sub-saharan African context provides a good opportunity to examine the role of spiritual capital in business development. This is because it is a context where religion plays a dominant role in society. Furthermore, beyond specific activities and liturgies associated with institutional religion, majority of the populace draw on their spiritual beliefs and values to survive, cope and thrive under often challenging conditions.

Thus, our paper focuses on the role of spiritual capital as an intangible resource in the development of entrepreneurial resilience. Given previous scholarly discussions of similar characteristics between the well known concept of social capital and the relatively recent concept of spiritual capital, our study incorporates social capital as a separate explanatory variable. Among others, this approach enable us to advance the understanding of spiritual capital as a distinct, operational construct in entrepreneurship and small business scholarship. Thus, we raise relevant hypotheses to examine the comparative and relative impacts of spiritual and social capital, and whether or not spiritual capital is more effective than social capital in the development of entrepreneurial resilience. To the best of our knowledge, this is the first time such hypotheses- examining the impact of spiritual capital on entrepreneurial resilience- are tested in the literature.

This paper contributes to entrepreneurship SME research in three important aspects. Firstly, by focusing on spiritual capital as an intangible resource, our paper pushes the frontiers of resource based view (RBV) theory. Previous scholarly contributions in the RBV literature have focused on intangibles such as human, structural, and relational capital (Kristandl & Bontis, 2007; MERITUM, 2002). While a recent study, using the broad canvas of sociological and economic research, examined the role of spiritual capital on firm performance (Neubert et al., 2015), our study is the first taking a strategic management perspective- and resource-based view- to investigate the impact of spiritual capital as an intangible resource for entrepreneurial resilience.

Secondly, our study makes an important contribution to conceptual clarity and deeper understanding of the distinct and complementary roles of spiritual and social capital in entrepreneurship activity. Thus we distinguish between social capital as a resource accruing from networks of formal and informal relationships between the entrepreneur and other stakeholders in the entrepreneurial ecosystem; and spiritual capital as a transcendent resource emanating from individual's spiritual and religious beliefs and values. Conversely, we also highlight similarities between spiritual and social capital in terms of the role faith and spiritual organisations as channels of deep connection, solidarity and trust among individuals, and in terms of social networks as enablers of spiritual insights and values. We discuss how these contribute to the development of entrepreneurial resilience.

Thirdly, our study also provides new insights on the relationships and interactions between spiritual capital and environmental turbulence. In other words, while our previous focus on entrepreneurial resilience deepens our understanding of how spiritual capital enables and strengthens the inner resourcefulness and hardiness of individual entrepreneurs, the focus on environmental turbulence enables us to grapple with the operational role of spiritual capital in the external environment. It is in this respect that our empirical context becomes especially relevant. While many studies have been carried out on environmental turbulence in developed country contexts, there are gaps in empirical evidence on how entrepreneurs and SMEs cope with uncertainties and complexities in developing countries. This gap in knowledge is especially important because the factors that drive turbulence in developing countries are often distinct in their form and impact compared with developed countries. Even within the same environment, turbulence often takes different shapes and forms, for example within the context of natural disasters economic uncertainties (Schmitt et al., 2018), or man-made conflicts (Bruck et al., 2013). Furthermore, different factors often have varying levels of impact in different environments. In sub-Saharan African countries, in particular, institutional instability play a dominant role as a driver of environmental turbulence, and they tend to have a disproportionate impact on SMEs (Amaeshi, Adegbite and Rajwani, 2016, Adebusuyi, Adebusuyi & Kolade, 2022).

The rest of the paper is organised as follows. The next section explores the theoretical and conceptual issues around spiritual capital, social capital and entrepreneurial resilience. This is followed by a description of the empirical context and the methodology employed in this study. We then discuss our findings, as well as implications and suggestions for further studies.

2. Spiritual capital, social capital and entrepreneurial resilience

2.1 Environmental Turbulence

In their seminal paper, Emery and Trist (1965) identified four "causal textures" that describe the environments under which organisations operate. They drew ideas from various disciplines such as biology, psychology and sociology to identify the progressive typologies of changes that happen within organisational environments, and which should inform how organisations respond and adapt. The first and simplest type of environmental texture is the "placid, randomised environment" in which the factors and conditions are relatively unchanging and randomly distributed. The second type, "placid, clustered environment" entails more complexity as the noxiants "are not randomly distributed but hang together in certain ways"(Emery and Trist, 1965, pp.25). Here, organisations need to develop distinctive competence and deploy appropriate strategies, different from tactics, to deal with uncertainties. The third type, called the "disturbed reactive environment" is characterised by the presence of more than one organisation, each reacting to complexities and uncertainties in the environment.

Thus, in this environment, organisations need to choose appropriate strategies and also find effective operations that can draw off other organisations competing in the same environment.

The type four environment was classified as "turbulent fields". These turbulent environments are essentially a logical culmination of type three environments. In a turbulent environment, the dynamic processes that lead to the emergence of type three environments produce reactions from the environment itself. These reactions are driven by the dynamic forces of growth needed to meet type three conditions in organisations, the increasing inter-dependence and interactions between economic activities and the institutional environments, and the increasing reliance on research and development to achieve and maintain competitive advantage. Following Emery and Trist (1965), other scholars have proposed "hyperturbulence" as a fifth type of business environments, characterised by a higher level of complexity and change (McCann & Selsky, 1984).

More recent research in management strongly holds that the key to an organization's success, in effect, is its ability to make timely and appropriate adaptations to complex and ever changing business environments (Alonso et al, 2019; Clarke and Meldrum, 2009; Kubr, 2007). In particular, within turbulent environments, several forces, including but not limited to uncertainties, changes in customer preferences, frequent technological changes, natural disasters, violent conflict and political instability, confront businesses and pose challenges to organizational performance (Bodlaj & Čater, 2019; Hamann et al., 2020). Many of these forces are outside the control of firms, hence, they can only respond through their own decision-making and resource accumulation processes. The results on the link between environmental turbulence and firm-level performance are mixed. At the basic level, some scholars argue that environmental turbulence limits performance mainly because of uncertainties and difficulties associated with decision-making (Waseem and Hassen, 2017). In contrast, a large body of research suggest that once firms are able to respond effectively to turbulence, they may actually experience improved performance (Ramirez and Selsky, 2016; Sajilan, 2015). This is because high dynamics amplifies firms' learning and capability accumulation efforts. Ultimately, within unstable environments, firms tend to learn to seek alternative strategic processes to secure a competitive edge in their industry (Stonebraker and Liao, 2004; Tsai and Yang, 2013). These alternatives often include the deployment of intangible strategic assets, notably among which is social capital that helps firms to become more resilient (Ramírez & Selsky, 2016; Nahapiet & Ghoshal, 1998).

2.2 Social capital

Social capital is defined as "the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu and Wacquant, 1992, p.119). Social capital entails notion of trust and norms of reciprocity that exist within social networks, and is often described in its structural, cognitive and relational dimensions (Camps & Marques, 2014). Structural social capital refers to the structures and overall pattern of connections among actors in a network, while cognitive social capital refers to more intangible forms such as trust and norms of reciprocity (Baum & Ziersch, 2001; Nahapiet & Ghoshal, 1998). Relational social capital refers to the type of personal relationships that actors have, and how it influences their behaviours within the system (Nahapiet & Ghoshal, 1998).

Social capital is also classified into bonding, bridging and linking types (Kolade & Harpham, 2014). Bonding social capital is the type of social capital that exists between individuals who share similar identities and characteristics such as religion and ethnicities, while bridging social capital is the social capital that between communities and individuals with different characteristics. In effect, bridging social capital intersects with the notion of heterogeneity of memberships of social groups (Davidsson & Honig, 2003; Stam et al., 2014). A third form of social capital, linking social capital, is sometimes thought as a form of, or an extension of, bridging social capital (Harrison et al., 2016). It relates to the vertical linkages and interactions that exist between individuals or communities and institutional power structures, such as governments.

Social capital is a resource on which firms can draw in uncertain and unpredictable business environments. Indeed, social capital theory suggests that in the development of resilience, entrepreneurs find network resources as important as tangible resources (Aldrich, 2017). In this tradition, several studies document a positive relationship between social capital and entrepreneurial resilience in the face of turbulence (Dimitriadis, 2021; Salisu et al, 2019; Aldrich & Meyer, 2015). For instance, Chowdhury et al (2019) illustrate how relational social capital played a key role in the postdisaster recovery of the tourism sector in Christchurch, New Zealand. The key pathway to impact is that social capital helps "individuals to prepare for, adjust and recover from unforeseen events" (Salisu et al, 2019, p.142). Thus, the role of social capital has attracted significant scholarly attention in the entrepreneurship and strategy literature. However, it has been argued that social capital may not be sufficient as a coping strategy in turbulent environments where recurrent shocks sometimes degrade social capital in terms of local support systems and norms of reciprocity (Berhanu, 2011; Fleming et al., 2014). Recurrent shocks often induces poverty which affects entire communities and make it difficult for individuals to draw support from their networks of neighbours and friends (Berhanu, 2011). Similarly, post-disaster conditions can alter social capital through new rivalries generated by disputes and struggle for scarce resources, increased information assymtetries between neighbours, migration, and social displacement (Fleming et al., 2014). Specifically, Dimitriadis (2021) showed that social capital can, have adverse effects on entrepreneurs' resilience depending on the relationships they consist of and how those relationships are affected by the same shock that the entrepreneurs face. Other scholars have shown that different forms of social capital can be transformed and contribute in different ways to resilience and recovery outcomes.

For example, Aldrich et al., (2020) found that bridging social capital, and not bonding social capital, made significant positive impact on resilience and recovery of households forcibly displaced in the wake of Boko Haram terror in Northern Nigeria. Given the foregoing, another potential source of coping strategies and adaptive capacity- which has not attracted adequate attention in the scholarly literature- is spiritual capital.

2.3 Spiritual capital as an entrepreneurial resource

While the resource-based view theory distinguishes between tangible and intangible resources, there are significant gaps in understanding what constitutes intangibles and how they are mobilised and deployed to achieve entrepreneurial and firm outcomes (Kristandl & Bontis, 2007). A large body of literature use the terms intangibles and intellectual resources interchangeably, with the latter described as comprising human capital, structural capital and relational capital (MERITUM, 2002). While the human capital (which includes individual knowledge, skills and experiences) come close, not least with its focus on assets accrued and taken anywhere with them by the individual, none of the three dimensions adequately capture the essence of spiritual capital as an entrepreneurial resource.

In this paper, we adopt Neubert et al. (2015, pp.2)'s definition of spiritual capital as "the set of personal, intangible, and transcendent resources that emanate from an individual's spiritual or religious beliefs and experiences and may be used in economic activity". Spirituality as an idea goes to the heart of the questions around ultimate meanings, aspirations, and values. As such, spirituality has gained increasing traction in a post-secular world in which many are increasingly dissatisfied with the consumerism and materialism, and where transnational migration has driven diversity and propelled renewed and growing interest in spirituality and spiritual values (Baker, 2012).

In this section, we highlight key elements of spiritual capital that elucidates the concept as a intangible, individual resource in entrepreneurial activity. In order to do this we draw on the literature from psychology, sociology of religion, and economics. First we begin by exploring spirituality as an idea to elucidating spiritual capital as a resource that can be mobilised and deployed for entrepreneurial activity.

Scholars through the centuries have grappled with the core notion of spirituality, its relationship with religious beliefs and practices, and its impact on social interactions and economic activities. The idea of spirituality does not necessarily conjure the notion of the supernatural, nor is it necessarily confined to institutionalised religion (Iannaccone & Klick, 2003; Neubert et al., 2015). Rather, spirituality lends itself to various forms in different religious traditions (Berger & Hefner, 2003), and it is also linked with non-religious experiences (Demmrich & Huber, 2019; Neubert et al., 2015). In effect, spirituality as an idea goes to the heart of the questions around ultimate meanings, aspirations, and values. As such, spirituality as an idea has gained increasing traction in a post-secular world in which many are increasingly dissatisfied with consumerism and materialism, and where transnational migration has driven diversity and propelled renewed and growing interest in spirituality and spiritual values (Baker, 2012).

We draw on Bucher (2014)'s three-dimensional model of spirituality, at the heart of which is connectedness- horizontal connectedness to the immanent environment; vertical connectedness to God or a higher spiritual being; and "depth-dimension" connectedness to one self (Demmrich & Huber, 2019). These dimensions also align with the conceptualisation of spirituality in terms of self-transcendence and "peak experiences" (Maslow, 1943, 1971; Kirk, Eaves and Martin, 1999). Maslow further describes "peak experiences" as those "experiences often accompanied by a peculiar and distinctive feeling of oneness with the universe (where) the feeling of separateness, distance, or alienation from the world disappears" (Maslow, 1962, p.9). In line with this, self-transcendence has been defined as "the capacity to reach out beyond self-boundaries to achieve broadened perspectives and behaviours that help one discover or make meaning of experience" (Coward, 1996, pp.1). In Maslow's hierarchy of needs, self-transcendence is identified as the highest level of human consciousness, beyond self-actualisation. In Bucher's model, self-transcendence is often a precursor and enabler of self-connectednesss. By connecting with a higher being or principle, individuals are able to connect deeper with and find harmony within themselves. This vertical and depth connectedness then enable the immanent connectedness with the external environment.

We bring the foregoing discussions of spirituality together to highlight two key elements of spiritual capital as a resource for entrepreneurial endeavours: inspiration, and *the will to make (figure 1).* Drawing from the Judeo-Christian conception of the term, Thrash and Elliot (2003, pp. 872) describes inspiration as "a motivational state evoked by a revelation (trigger) and directed toward the conversion of transcendent, revealed knowledge into a work of art, a text, or some other concrete form (target)". Inspiration is a state of heightened consciousness that enables entrepreneurs to see differently from, and farther than, others- to recognise and harness new opportunities to create and capture value. It is therefore a unique, intangible resource for enterprise. We distinguish this from the second element which we introduce in this paper as the *will to make,* drawing from Neitsche's concept of the "will to power" as the dominant driving force in everyone, expressed in various ways- for example in the scientist as the will to truth. We argue that, for the entrepreneur, the dominant driving force is the *will to make,* to create and capture value. In other words, while inspiration is a state of consciousness, the *will to make* is a force of the will. It encompasses the internal *desire* to create new products and services, the inner *drive* to keep going against the odds, and the outward *efforts* to realise set goals. Put differently, inspiration is about intangible energy drawn from above, outside the self; the will to make is about the strength drawn from within. Both of these elements of spiritual capital are mutually reinforcing, and emanate from that vertical, depth and horizontal connectedness that characterises spirituality.

2.4 Entrepreneurial resilience

Resilience is "the capacity of a dynamic system to adapt successfully to disturbances that threaten system function, viability, or development" (Masten, 2014, pp.6). At the individual level, resilience is seen as "the ability to adapt in the face of trauma, adversity, tragedy or even significant ongoing stressors" (Fisher, Maritz and Lobo, 2016, pp.41). It has also been defined as the "capacity of individuals, communities and institutions to anticipate, prepare for, resist, withstand, adapt to, transform and recover from crises" (UNDG, 2018, p.9). It is therefore an embodiment of personal qualities that enable an individual to adapt to disruptions, cope with stress and thrive in the face of adversity (K. M. Connor & Davidson, 2003). These disruptions and stressors are typically instigated or aggravated by uncertainties and unexpected changes and events in the external environment. In our study, we focus on institutional instability, political instability, economic volatility and physical danger as measures of environmental turbulence. Business survival in such environments requires a level of resilience. Entrepreneurial resilience also entails a broad spectrum of positive psychological functionings in the aftermath of venture failure. These include the notions of stability and recovery essential for re-entry into entrepreneurship (Corner et al., 2017).

Operationally, three distinct factors associated with entrepreneurial resilience have been identified in the literature as: hardiness, resourcefulness, and optimism (Ayala & Manzano, 2014) Hardiness refers to goal-setting orientation, commitment and decision making of entrepreneurs in the face of adverse situations. It incorporates three key factors: a sense of control over external events, commitment to finding meaning in daily life, and taking a challenge perspectives when unexpected changes happen (Mosley & Laborde, 2016). This challenge perspective enable individual to adapt and harness new opportunities in otherwise challenging circumstances and situations. Resourcefulness emphasizes the set of skills that enables entrepreneurs to exercise control, adapt and navigate their ways through adverse situations. Resourcefulness falls into two broad patterns: continuity and change. Continuity refere to resourcefulness that draws on known resources in existing contexts, while change refers to resourcefulness that enables individuals to embrace challenges, adapt and harness opportunities in new contexts (Welter et al., 2018). Resourcefulness can therefore be oriented towards a *coping* outcome focusing on maintaining a current way of life, or it can lead to a *development* outcome focusing on earning new incomes or expanding business activities. Optimism refers to the positive attitudes that drive entrepreneurs to "improve a situation beyond simply doing what is expected, and know how to control their unpleasant feelings" (Ayala and Manzano, 2014, p.250). Optimism can therefore be conceptualised in terms of how individuals interprete past failures as a product of unstable causes which can be changed, and in terms of generalised expectancies of positive outcomes in the future. These, in turn, will significantly influence the level of incentives from individuals to apply their efforts to achieve desired outcomes (Carver et al., 2010). The relationship between spiritual capital and entrepreneurial resilience is summarised in figure 1. It describes spiritual capital as a fundamental concept and then as a resource- a form of "capital" that can be used in economic activities. It then highlights the relationship between spiritual capital and entrepreneurial resilience. The relationship is further discussed in the following section outling the hypotheses development, which also explores the role of social capital on entrepreneurial resilience in turbulent environments.

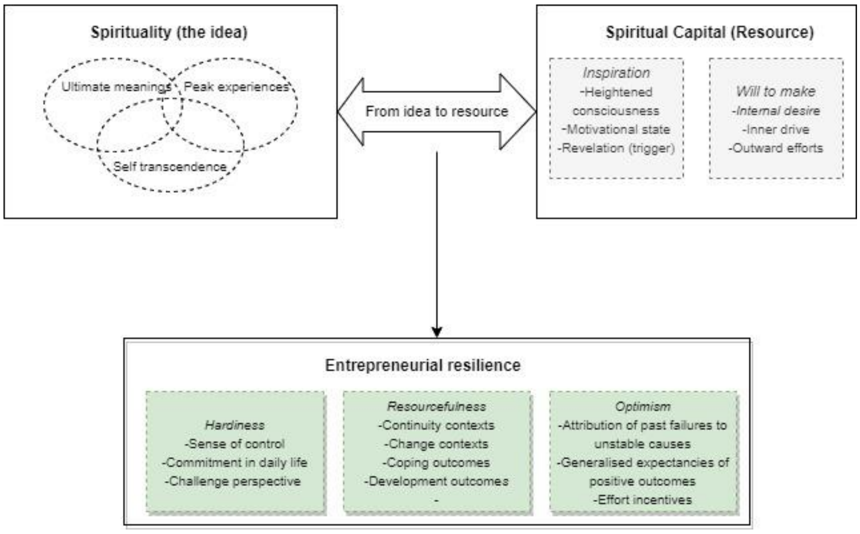

Figure 1. Spirituality, spiritual capital and entrepreneurial resilience

2.5 Hypotheses development

2.5.1 Spiritual capital and entrepreneurial resilience. Entrepreneurs draw from a wide range of tangible and intangible resources to access and harness opportunities to create and capture value. In difficult and challenging environments, intangible resources often play unique roles. These intangible resources are often drawn from networks of relationships with other actors and stakeholders within and outside the entrepreneurial ecosystem (Kolade et al., 2019). In addition to this outward facing component of intangible resources, the survival and success of entrepreneurial activities in turbulent times also owes a lot to inner resolve and motivation of individual entrepreneurs to keep going, against the odds. This is often discussed in the entrepreneurship literature in terms of concepts such as internal locus of control, but these concepts speak in effect of what entrepreneurs *are*, not what they *have.* Spiritual capital as a concept provide an operational window to grapple with this inner resolve as an intangible resource by which entrepreneurs draws from their inner reserves of will within, as well as reach beyond themselves for inspiration and transcendent energy, in order to achieve their objectives. This inner resource could be linked to the attach personal meaning and transcendent ideals entrepreneurs attach to their enterprise, beyond profit making (Balog et al., 2014). This higher, and heightened consciousness, of transcendent ideals and ethereal aspirations can them to see differently from others, recognise opportunities and act on them, while exercising high internal locus of control. Thus, successful entrepreneurs tend to persist in the face of challenges and unfavourable conditions (Adomako et al. 2016). This latter attribute of resilience is especially critical for the survival and success of firms in turbulent environments. However, other expressions of spirituality and self-transendence can lead individuals to stoic acceptance of reality, or a commitment to traditional values and ideals that sometimes imply reluctance or resistance to change and innovation (Kavas et al., 2019). In other words, spiritual capital is not a one way street that would necessarily produce the same outcomes in entrepreneurial resilience. Given the foregoing, we hypothesise as follows:

H1: spiritual capital has a significant direct positive effect on entrepreneurial resilience

2.5.1 Social capital and entrepreneurial resilience. Social capital is a key resource for firms and entrepreneurs. It enables SMEs in particular to promote linkages and generate synergy through which they can mitigate risk and share cost and expertise (Kolade et al., 2019). As mentioned earlier, social capital also enables firms to develop and draw on their external networks. These networks of stakeholders can be critical for firms' survival and competitiveness, especially in turbulent environments (Gedajlovic et al., 2013). Gao, Sung, & Zhang (2013) noted that cognitive social capital play a key role in firms' coping strategies through communication and sharing of risk management skills and practices across networks of SMEs, and it is also critical for accumulating relational and structural social capital. In family firms, social binding ties is a key component of non-economic resources described as socio-economic wealth, and has been found to play an important role in firms, by shaping the individual entrepreneur's adaptability and resilience in turbulent times (Carr et al., 2011;

Chrisman et al., 2011). In other words, social capital can promote and reinforce entrepreneurial resilience. We therefore hypothesise that:

> *H_2: social capital has a significant direct positive impact on entrepreneurial resilience*

2.5.2 Spiritual capital, social capital and entrepreneurial resilience. There is a close connection, conceptually, between spiritual capital and social capital. Spiritual capital is often embedded in and accessed within networks of faith organisations, for example through practical and emotional support that individuals gain from their networks (Unruh and Sider, 2005). Thus, some forms of spiritual capital are not quite distinguishable from the core characteristics of social capital, and some scholars have suggested that spiritual capital is but a form of social capital (Palmer & Wong, 2013). However, there are also distinctive individual dimensions that distinguish spiritual capital from social capital. For example, while spiritual beliefs and values can be influenced and reinforced at the group level, they are ultimately realised at the individual level, both in terms of content and impact (Verter, 2003). Moreover, the core idea of self-transcendence, which derives from spiritual capital, is effectively operationalised at the individual level (Kirk et al., 1999; Levenson et al., 2005).

Our third hypothesis draws from the proposition that social capital and spiritual capital are often embedded within each other, and therefore spiritual capital is a potential mediator of social capital. Social capital does not necessarily entail notions of spirituality. However, as discussed previously, spiritual capital is often accessed within networks, usually of faith organisations. Furthermore, we argue that in societies, such as sub-Saharan African countries, where religion plays a prominent role, spiritual capital will likely be a key channel through which individuals and communities access social capital. Thus, we hypothesise that:

H$_3$: spiritual capital mediates the relationship between social capital and entrepreneurial resilience

We bring these hypotheses together in a conceptual model (figure 2) that illuminates the relationships and interactions between spiritual capital, social capital, environmental turbulence and entrepreneurial resilience.

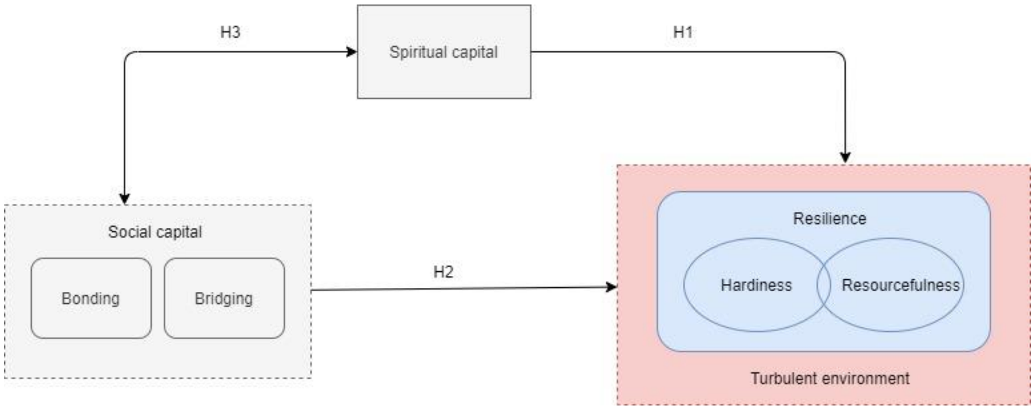

Figure 2. Conceptual framework

3. The empirical context

Our context for the empirical analyses is Nigeria, a country in which the business environment is noted to be turbulent (Oyelaran-Oyeyinka et al., 1996; Radwan & Pellegrini, 2010). With a population of 200 million people according to the latest estimates, Nigeria is the most populous country in Africa, and the seventh most populous in the world (United Nations, 2018). Yet, about 71 percent of the population are reported to be living in relative poverty, and the poverty rate was put at 64.2 per cent in 2013/2014, increasing from 62 per cent in 2010 (World Bank, 2013).

SMEs constitute more than 90 per cent of businesses in Nigeria (The Economist Intelligence Unit, 2015), and they are critical for the country's goals of sustainable growth, poverty reduction and job creation. Together they contribute about 75 per cent of employment, and about 40 percent of the country's GDP (Federal Government of Nigeria, 2013; Kolade et al., 2019). More recent unofficial data suggests that the number of SMEs is at least double the reported 2013 figure. Although these figures suggest a high level of entrepreneurial activity in Nigeria, the quantity is not matched by productivity. This is partly because Nigerian entrepreneurs face a wide range of challenges and difficulties associated with the turbulent environment for business. These challenges include especially, economic uncertainties occasioned by weak institutions, political instability and institutional instability, corruption, terrorist insurgency, and communal and inter-ethnic clashes. According to the latest ‘Doing Business in Nigeria Report’ produced by the World Bank (World Bank, 2018), Nigeria is one of the most challenging places in the world to run a business. It takes an average of 10 procedures over 26 days to register a business, and costs 29% of income per capital. Furthermore, Nigeria is one of the most difficult places to register property in the world. An entrepreneur requires 12 procedures over 73 days and a payment of 15.3% of the value of the property in order to transfer land.

Nigeria is currently ranked 144th in the list of 180 least corrupt countries in the world, with a score of 27% in Transparency International Corruption Perception Index (Transparency International, 2019). Furthermore, 85% of Nigerians believe that corruption accounts for most of the difficulties associated with doing business in Nigeria, and the prevalence of corruption is in turn linked with weak government institutions and widespread poverty (United States Commercial Service, 2019).

Security is another major challenge affecting the Nigerian business environment. Boko Haram terrorism in Nigeria has precipitated humanitarian tragedy on a scale comparable to the Nigerian civil war which occurred between 1967 and 1970. The insurgency has led to the destruction of key infrastructures, widespread disruption to markets and heavy losses as people and businesses are forced to relocate from the most affected areas. In addition, the perennial herdsmen-farmers conflict has escalated to critical levels with severe negative impact on the business environment and overall national productivity. According to MercyCorps, in the year 2012 alone, four states in Northern Nigeria, out of the 36 states in the country, lost up to $2.3million in internally generated tax revenue alone. Conversely, in a scenario of peace between the herdsmen and farmers, Nigeria stands to gain up to $13.7 billion in macro-economic progress, annually, in those four states alone (Mercy Corps, 2015). More recently, the global coronavirus pandemic has taken a big toll on businesses, with many SMEs forced to shut down in response to macro-economic shocks and physical danger associated to the spread of the virus.

In combination, these challenges create a turbulent context which tends to exert a downward pull on entrepreneurial survival and productivity. In the face of these challenges, it is common to find entrepreneurs relying on social and spiritual capital as coping mechanisms to fill the institutional instability, mitigate the resource constraints, and overcome the security and other challenges to entrepreneurial productivity. This is intrinsically linked to the communal and religious nature of typical African societies (Eniola, 2018).

4. Methodology

4.1 Sampling and data collection

The sampling frame for this study is the database of 18,906 firms obtained from the Nigerian National Bureau of Statistics and has been used in several previous studies (e.g., Adeyeye et al, 2018). From this population we isolated the companies located in and around Lagos, the business capital of Nigeria. A sample of 650 firms was randomly drawn from this sub-population for our survey. In order to ensure representativeness of the sample, the firms were stratified by sector and size using appropriate strata weights. In sectors with new firms, a higher proportion of firms was selected into the sample. In sectors with a relatively large number of firms, proportional probability sampling was used. The survey was undertaken between August and October 2018 using a structured interview approach. Five trained research assistants, with direct knowledge of and previous field experience in the location, were sent out to interview respondents. This is to enhance the response rate. The use of structured interviews, rather than self-administration, also enables us to mitigate concerns about common method bias. In other words, the enumerators were able to provide immediate clarifications and the respondents had no chance to flip back and forth between survey items. In cases where a sampled firm could not be located (due to exit, relocation, etc), enumerators were instructed to replace with another one with similar attributes (sector, size and age). Of the 650 questionnaires administered, 622 completed questionnaires were deemed usable.

We engaged field assistants who have been involved in previous national surveys working with the same database. They are therefore not only familiar with the field, but also experienced with field challenges they have faced in previous exercises. They were also under the direct supervision of one of the authors, who has led similar exercises in recent past. These, in combination, enabled us to obtain a high response rate. While key information was collected about the firm, including size, sector of operation and formalisation, the primary unit of analysis is the firm owner/manager. This is in line with our research design which focuses on the attributes of individual managers as the principal driver of firm resilience and growth. As such, information was elicited about manager's age, gender, level of education, property ownership, monthly income, and membership of religious organisations, among others. This is in addition to a range of Likert scale items used to measure the variables of interest.

Next we proceed with some steps to prepare the raw data for analysis. Missing values were imputed using the *hotdeckvar* routine in Stata. This routine is particularly suited for categorical data where regression-based multiple imputation techniques could predict out-of-range and invalid values (Schonlau, 2018). The routine works in two main stages. First, for every missing observation on a particular variable, it randomly identifies all donor observations that have no missing value for that variable. If a set of variables are specified, the routine looks for donor observations with no missing values on the entire set of variables. Second, from a random donor observation that is the most similar on all non-missing variables to the one to be imputed, it copies the corresponding value of the missing variable. Where a set of variables have been specified, missing values from the same observation are replaced with values from the same donor observation to preserve correlations.

4.2 Exploratory factor analysis

Appropriate measurement items adopted from previous studies were used to operationalise the relevant variables and constructs used in this study. Detailed discussions of each variables are provided below, but the present section describes the procedures followed to carry out necessary tests to assess validity and reliability of the instruments using exploratory factor analysis. First, we evaluate the factorability of our data by carrying out Bartlett's test of sphericity to determine whether or not the measurement items intercorrelate at all. Here, a statistically significant outcome indicates that the correlation matrix is not an identity matrix and factor analysis can be employed. Next, we undertake the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (MSA). This provides a clearer indication about whether there is at least one latent factor underlying the items. We use the recommended value of 0.60 for the MSA. Following these initial checks, we then carried out a parallel analysis using the Psych package in R to determine the number of underlying latent factors. The scree plots are manually inspected to ensure consistency with theory.

Following the parallel analysis, factor analysis was carried out using the *fa* function in the R Psych package. The extraction method used is the principal axis factoring, and the minimum residual solution was transformed into an oblique solution using the *oblimin* function. These steps are repeated for each of the variables studied. The results of the items factorability tests, principal axis factoring and construct reliability are provided in Table 1 below.

Table1: Item factorability, principal axis factoring and construct reliability

Variables and dimensions	Bartlett's test of sphericity	KMO	Eigenvalue	Variance extracted	Cronbach's alpha
Spiritual capital	4198.3(0)	0.95	5.30	0.66	0.98
Social capital	5318(0)	0.80			
Bonding social capital			3.74	0.25	0.96
Bridging social capital			3.67	0.24	0.95
Environmental Turbulence	8182.2 (0)	0.85			
Political instability			4.22	0.22	0.97
Economic instability			4.00	0.21	0.95
Perceived danger			2.87	0.15	0.92
Entrepreneurial resilience	6980.9(0)	0.95			
Resourcefulness			4.85	0.35	0.97
Hardiness			4.14	0.30	0.96

4.3 Variables and measures

4.3.1 Endogenous variables. The dependent/endogenous variables examined in this study is entrepreneurial resilience, disaggregated into two dimensions- hardiness and resourcefulness- as explained below. In this study, we adopted four likert-scale items from Connor and Davidson (2003) and ten items from Sinclair and Wallston (2004). Respondents were asked to rate their attitudes, using a Likert scale of 1 (“does not describe me at all”) to 7 (“describes me very well”). Using a cut off of 0.6 for the factor loadings, three of the original fourteen items were removed. The final 11 items reduced to two distinct factors, *resourcefulness* and *hardiness*, used in this study. These factors were, like the other final factors for the other variables, subjected to confirmatory factor analysis.

4.3.2 Exogenous/independent variables. Spiritual capital. This is the main explanatory variable, and was operationalised using eight items adapted from (Christopher Baker & Smith, 2010). Respondents were asked to indicate agreement or disagreement with a set of statements on a scale of 1 to 7, from strongly disagree to strongly agree. Using similar procedures as described for entrepreneurial resilience, the spiritual capital items were reduced to seven items loading on one distinct factor.

Social capital. Social capital was measured using 12 items from Poortinga (2012) and three items from Murayama *et al.*, (2013). Of the total 15 items, only 12 had a factor score of 0.6 or more. In the factor analysis, these reduced to two distinct factors. So in this study, the two social capital factors examined were bonding social capital and linking social capital. This is consistent with the overlap reported by previous scholars between bridging social capital and linking social capital. It also aligns with the peculiarities of the empirical context, where the boundary is even blurred between bridging capital with people from other communities and groups and linking capital with those in governments or other positions of authority.

Controls. We controlled for level of education, gender and ownership of property. This reflects the role these factors have been known to play in the capacity of individuals and entrepreneurs to cope with turbulence and uncertainties (Cohen et al., 2017; Daniel et al., 2019; Harms et al., 2014). Education is a proxy for human capital, which has been found to play a key role in individual and organisational capabilities to withstand and adapt in the face of shocks and unexpected changes (Anuradha et al., 2021; Blanco & Montes-Botella, 2017; Martini, 2020). Entrepreneurs with higher levels of academic qualification are usually better able to access information that enables them to adapt, create new opportunities or access new markets, both domestically and internationally. Similarly, gender also play a significant role, especially in developing countries where women are traditionally disadvantaged in terms of access to finance and other institutional support that can enable them to cope and thrive in challenging conditions. Finally, property ownership is a significant factor affecting an individual's access to finance, and can play a key role in the ability of firms to thrive in turbulent environments.

4.4 Model specification

We carried out the analysis in two parts. First we specify a structural equation model, as shown in the figure 3 below, to investigate the mediating role of spiritual capital. Next we carried out a regression analysis to examine the moderating impact of spiritual capital on each of the environmental turbulence constructs.

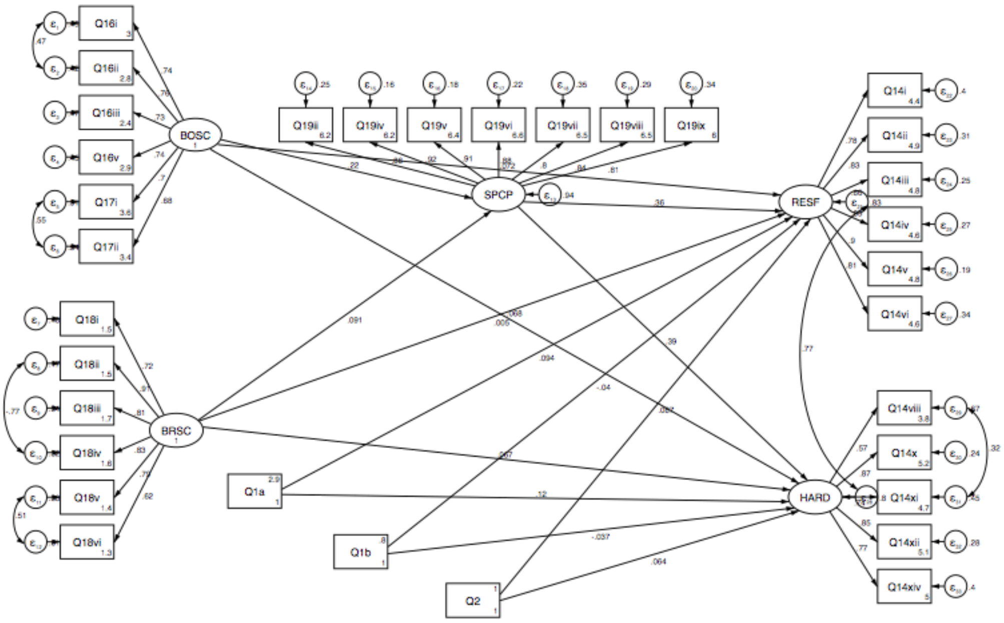

Figure 3. Structural model

The main relationship of interest in the structural equation model is the relationship between spiritual capital and entrepreneurial resilience. In the model, this relationship is depicted through separate regression paths between spiritual capital (SPCP) and each of the resilience constructs: resourcefulness (RESF) and hardiness (HARD). In order to investigate the mediating role of spiritual capital, we specified regression paths between spiritual capital and each of bonding (BOSC) and bridging (BRSC) social capital. To compare direct and indirect effects in the model, we specified direct regression paths between each of the social capital constructs and the resilience constructs. The controls in our model are depicted as Q1a (level of education), Q1b (gender) and Q2 (property ownership).

For the second part of the analysis, we have bonding social capital, bridging social capital, spiritual capital, and the three environmental turbulence constructs- political instability, economic instability and perceived danger- as independent variables. Then we have three interaction effects of spiritual capital on each of political instability, economic instability and perceived danger.

5. Results and discussion

5.1 Descriptive statistics

The profile of respondents is summarised in Table 2. Based on a total observation of 622, the frequency data indicates that the vast majority of respondents - more than 94% - belong to a religious organisation. This is consistent with the national profile, with majority of the citizens claiming membership of one or the other religious group. In terms of property ownership, about half of the respondents do now own property with proper legal documentation. This has significant implications for the entrepreneur's access to credit, given that property right is a key requirement for lenders. However, about two thirds of the respondents are formally registered with the country's Corporate Affairs Commission (CAC). This relatively high figure reflects in part the peculiarity of Lagos as a commercial hub where firms have better access to information and support for formal registration, and also the more recent initiatives of the Federal and Lagos governments to enable easier registration of firms. Nevertheless, 31% still represents a high level of informality. Furthermore, more than 60% of the respondents hold university degree qualifications or higher, compared with only 3.7% who do not have any formal education. In terms of sectoral distribution, majority of the respondents operate in the services sector (46%), followed closely by manufacturing at 44%. Agriculture accounts for only 7.7% of the firms. While this is a departure from the national profile, where agriculture still dominates as the biggest employer, it is again consistent with the profile of Lagos as the country's largest commercial hub and a location whose high population density and coastal location is not best suited to agricultural activities. Finally, only 37% of the 622 respondents are female, reflecting the lower market participation of women relative to the men.

Table 2: Profile of respondents

Variables	% Freq.	Variables	% Freq.	Variables	% Freq.
Membership of religious group		*Gender*		*Property ownership*	
Yes	94.37	Male	59.16	Yes	50.64
No	4.02	Female	37.46	No	47.11
Missing	1.61	Missing	3.38	Missing	2.55
Formality		*Main line of business*		*Level of education*	
Formal	63.83	Agriculture	7.72	No formal education	3.7
Informal	31.35	Manufacturing	44.21	Primary	4.34
Missing	4.82	Services	46.14	Secondary	24.44
		Extractive	0.32	Degree	45.5
		Missing	1.61	Postgraduate	17.36
				Missing	4.66

The correlation matrix for the control variables is provided Table 3 below. The correlations between control variables are generally low. The main independent variables also have low pairwise correlation, with the exception of the hardiness and resourcefulness constructs. These two variables both relate to different aspects of resilience, which could potentially overlap. This, however, does not pose a threat to our analyses because the two variables do not enter as independent variables in the same regression specifications. Average and maximum variance inflation factors of 1.39 and 2.08 respectively, are well below the acceptable limit of 5. The condition number is also well below the acceptable limit of 30.

Table 3: Descriptive Statistics and Correlation Matrix

	N	**Mean**	**St. Dv**	**Min**	**Max**	**VIF**	**EDU**	**GEND**	**PROP**	**BOSC**	**BRSC**	**SPCP**	**PI**	**EI**
EDU	622	3	1	0	4	1.15	1							
GENDER	622	0	0	0	1	1.04	-0.076	1						
PROPTY	622	1	0	0	1	1.12	0.2237	-0.118	1					
BOSC	622	30	8	7	42	1.26	-0.1	-0.028	0.0691	1				
BRSC	622	15	9	6	42	1.18	0.2041	-0.128	0.1314	-0.042	1			
SPCP	622	45	6	7	49	1.27	-0.019	-0.041	-0.049	0.1895	0.0833	1		
PI	622	15.822	9.0034	8	56	1.44	0.1086	-6E-04	-0.099	-0.16	0.057	-0.05	1	
EI	622	19.749	7.0097	5	35	1.43	0.0711	-0.072	0.0304	-0.19	0.0483	0.0122	0.4818	1
PD	622	10.301	7.1096	6	42	1.32	0.1449	0.0013	0.0376	-0.339	0.3053	-0.016	0.2301	0.0831
HARD	622	23	4	5	28	2.08	0.1382	-0.045	0.0777	0.1634	0.1085	0.4068	-0.089	0.0737
RESF	622	35	6	8	42	2.04	0.0705	-0.068	0.0816	0.1717	0.0501	0.366	0.0118	0.1899

5.2 Results

Following the exploratory factor analyses earlier carried out, confirmatory factor analysis was undertaken to evaluate the fit of both our measurement and structural models. The evaluation was carried out on STATA SEM builder. Following the approach adopted in previous studies (Stylos et al., 2016), the fit indices we investigated were CMIN/DF, Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). The summary of the fit indices shown in Table 4 indicates that both the measurement and structural models satisfied the criteria for model fit.

Before turning to our hypotheses, the magnitude of the effects of spiritual capital on the two dimensions of entrepreneurial resilience (resourcefulness and hardiness), in the results displayed in Table 5, is worth noting. These effects exceed those of social capital, in magnitude. In most cases, they are roughly ten times as large, suggesting that in the accumulation of resourcefulness, spiritual capital may play a more distinct role, relative to social capital in a turbulent context.

Table 4: Fit Indices, measurement model and corresponding structural model

Fit Indices	Measurement Model	Structural Model	Model Criteria
CMIN/DF	2.789	2.854	<3
CFI	0.946	0.922	>0.90
TLI	0.938	0.908	>0.90
RMSEA	0.064	0.063	<0.08

Table 5: spiritual capital, social capital and entrepreneurial resilience

Regression paths	**Direct Effects**	**Indirect Effects**	**Total Effects**
SPCP<BOSC	**0.158 (4.92)*** **	0	**0.158 (4.92)*** **
SPCP<BRSC	**0.060 (2.21)** **	0	**0.060 (2.21)** **
RESF<SPCP	**0.396 (8.69)*** **	**0**	**0.396 (8.69)*** **
RESF<EDU	**0.093 (2.26)** **	0	**0.092 (2.23)** **
RESF<GEND	**-0.084 ('-1.09')**	**0**	**-0.084 ('1.09)**
RESF<PROP	**0.176 (2.3)** **	0	**0.176 (2.3)** **

RESF<BOSC	0.019 (0.78)	**0.061 (4.31)***	**0.081 (3)***
RESF<BRSC	0.002 (0.07)	**0.023 (2.15)**	0.026 (0.86
HARD<SPCP	**0.344 (8.52)***	0	**0.344 (8..52)***
HARD<EDU	**0.098 (2.75)***	0	**0.092 (2.75)***
HARD<GEND	-0.064	0	-0.064(-1.04')
HARD<PROP	-0.058(1.6)	0	**0.107 (1.74)***
HARD<BOSC	0.042 (1.53)	**0.052 (4.27)***	**0.054 (4.3)***
HARD<BRSC	**0.038 (1.66)***	**0.020 (2.14)**	**0.057 (2.31)**

The results in Table 5 further indicate that spiritual capital has a direct significant positive effect on both resourcefulness and hardiness. These results give support to hypothesis H1a and H_{1b} that there is a direct positive relationship between spiritual capital and entrepreneurial resilience. Our hypotheses H_{2a} and H_{2b} are only partially supported for bridging social capital, which shows a direct positive impact on hardiness but not resourcefulness. Bonding social capital only has a statistically insignificant direct effect on both dimensions of entrepreneurial resilience that we measured.

Hypotheses H_{3a} and H_{3b} focused on the mediating role of spiritual capital in the relationship between social capital and entrepreneurial resilience. The results in this regard are mixed. As expected, we find that spiritual capital fully mediates the relationship between bonding social capital and entrepreneurial resilience. This is evident from the fact that bonding social capital is directly influenced by spiritual capital but itself only indirectly influences both dimensions of resilience (that is, resourcefulness and hardiness) through spiritual capital. In other words, the effect of bonding social capital on entrepreneurial resilience is only significant in the presence of spiritual capital. However, spiritual capital only partly mediates the link between bridging social capital and entrepreneurial resilience. While spiritual capital seems to be required for bridging social capital to have a significant effect on resourcefulness, it just reduces the magnitude of the effect of bridging social capital on hardiness. In other words, bridging social capital will directly affect entrepreneurial resilience in the form of hardiness but part of this effect is replaced by spiritual capital.

6. Discussions and Conclusion

The foregoing has examined the relationship between spiritual capital and entrepreneurial resilience in the turbulent SME environment of sub-Saharan Africa. Our point of departure was the observation that SMEs in such turbulent environments deploy social capital to develop resilience, but given the importance attached to spirituality in these contexts, spiritual capital may actually supplant social capital. Indeed, our results suggest that spiritual capital play a more distinct role, relative to social capital, in a turbulent environment where religion is important. Thus, our study enhances the understanding of how an understudied phenomenon – in this case, the relevance of spiritual capital for entrepreneurial resilience - may affect existing views about business strategy and survival in the context of developing countries (George et al, 2016). Specifically, we uncover an important coping mechanism of firms in developing countries, where the business environment is particularly turbulent, and social capital as conceptualised in the existing literature may not suffice.

Furthermore, we show that in the accumulation of entrepreneurial resilience, whether through resourcefulness or hardiness, the impact of bonding social capital is felt more clearly and strongly where there is some level of spiritual capital. The same goes for bridging social capital. These findings are intuitive, considering the fact that, by definition, bonding social capital derives from in-group similarities, an attribute that intrinsically characterises the sources of spiritual capital. For instance, by the sheer force of homophily, individuals tend to join a faith group whose beliefs and practices comes closest to theirs. Ultimately, each faith group is comprised of members that have more in common within than they have in common with non-members. This mechanism gives rise to considerable within-group similarity that offers resources and support similar to, and ultimately substituting for, social capital. It is worth noting that social capital remains relevant – and is not fully substituted by spiritual capital – for the hardiness dimension of entrepreneurial resilience. This points to the fact that all forms of social capital are not equal and future studies would benefit from disaggregating the concept of social capital.

The results of this study also have some practical implications. We provide empirical evidence of the importance of spiritual capital for entrepreneurial resilience and thus firm survival in developing countries, particularly in sub-Saharan Africa. Thereby, our study bears a message that supports not only the economic relevance of religious groups as a source of spiritual capital but also the benefits associated with entrepreneurs' participation in such groups. While our results encourage the accumulation of spiritual capital, it is also noteworthy that entrepreneurial resilience in the form of hardiness still tends to benefit significantly from social capital, with or without spiritual capital. These findings also have particular resonance and relevance in the current contect of Covid-19 pandemic, which has had major disruptive impacts in developing countries such as Nigeria. With movements curtailed for the foreseeable future and governments struggling to contain the spread of the virus, businesses have been forced to shut down. In the circumstances, individual entrepreneurs are having to draw on their inner reserves of beliefs and values to reduce associated anxiety and make sense of the current struggles, while contemplating a better future in which they can they rebuild their lives and businesses. Without this transcendent resource of inner strength and resolve, the global crises would have more damaging impact on individual well-being and future aspirations. One of the limitations of our study relates to how we measure the link between entrepreneurial resilience and the ability to flourish during turbulent environments, which limits generalization of our results. Future research can look into developing other measures of entrepreneurial resilience and firm survival in turbulent times.

In conclusion, our study highlights the important role of spiritual capital, relative to social capital, in entrepreneurial resilience. Specifically, we show that entrepreneurial resilience seems to derive much more from spiritual capital in a turbulent business environment. These results are based on survey data from over 600 entrepreneurs in Nigeria, the largest economy in sub-Saharan Africa. Given the size of the study context and the representativeness of our sample, we believe that the results of this study are widely relevant, at least to other developing countries. Religion plays a prominent role in the societies of developing countries, especially in Africa. In this sense, results from Nigeria, the largest and one of the most diverse countries in Africa, will hold relevant practical and theoretical implications for other countries. Notwithstanding, further studies with larger samples and in different contexts are desirable, to take forward the empirical relationships that this study explored. It would be useful to know, for instance, whether spiritual capital is as important in less turbulent contexts and in environments where religion is less socially engrained.

References

Adebusuyi, A.S., Adebusuyi, O.F. and Kolade, O. (2022) 'Development and validation of sources of entrepreneurial self-efficacy and outcome expectations: A social cognitive career theory perspective', The International Journal of Management Education, 20(2), p. 100572. Available at: https://doi.org/10.1016/j.ijme.2021.100572.

Adeyeye, D., Oluwatope, O. B., Egbetokun, A., Sanni, M., and Opele, J. K. (2018). How barriers influence firms' search strategies and innovative performance. International Journal of Innovation Management, 22(2). DOI: 10.1142/S1363919618500111

Amaeshi, K., Adegbite, E. & Rajwani, T. (2016), "Corporate social responsibility in challenging and non-enabling institutional contexts: do institutional instability matter?", *Journal of Business Ethics*, 134(1), pp. 135-153.

Aldrich, D. P., Kolade, O., McMahon, K., & Smith, R. (2020). Social Capital's Role in Humanitarian Crises. *Journal of Refugee Studies*. https://doi.org/10.1093/jrs/feaa001

Anuradha, J. M. P. N., Fujimura, M., Inaoka, T., & Sakai, N. (2021). Role of Social and Human Capital in Household Resilience: Empirical Evidence from an Agricultural Village Community with Exposure to Significant Environmental Stresses in Sri Lanka. *Global Social Welfare*, *8*(1), 81–92. https://doi.org/10.1007/s40609-018-00137-w

Astrachan, J. H., Binz Astrachan, C., Campopiano, G., & Baù, M. (2020). Values, Spirituality and Religion: Family Business and the Roots of Sustainable Ethical Behavior. *Journal of Business Ethics*, *1*, 3. https://doi.org/10.1007/s10551-019-04392-5

Ayala, J. C., & Manzano, G. (2014). The resilience of the entrepreneur. Influence on the success of the business. A longitudinal analysis. *Journal of Economic Psychology*, *42*, 126–135. https://doi.org/10.1016/j.joep.2014.02.004

Baker, Chris. (2012). Exploring Spiritual Capital: Resource for an Uncertain Future? In S. D. Rima (Ed.), *Spiritual Capital:spirituality in practice in christian perspective* (pp. 7–22). Routledge. https://doi.org/10.4324/9781315087740-2

Baker, Christopher, & Smith, G. (2010). Spiritual, Religious and Social Capital – Exploring Their Dimensions and Their Relationship with Faith-Based Motivation and Participation in UK Civil Society. *Sociology of Religion Group Conference*, 1–40.

Balog, A. M., Baker, L. T., & Walker, A. G. (2014). Religiosity and spirituality in entrepreneurship: a review and research agenda. *Journal of Management, Spirituality & Religion*, *11*(2), 159–186. https://doi.org/10.1080/14766086.2013.836127

Barin Cruz, L., Aguilar Delgado, N., Leca, B., & Gond, J.-P. (2016). Institutional Resilience in Extreme Operating Environments. *Business & Society*, *55*(7), 970–1016. https://doi.org/10.1177/0007650314567438

Baum, F. E., & Ziersch, A. M. (2001). *Social Capital: Glossary*. Cambridge University Press. https://doi.org/10.1017/CBO9780511815447

Berger, P., & Hefner, R. (2003). Spiritual capital in comparative perspective. *Spiritual Capital Planning Meeting*, 1–6. http://metanexus.org/archive/spiritualcapitalresearchprogram/pdf/Berger.pdf

Berhanu, W. (2011). Recurrent Shocks, Poverty Traps and the Degradation of Pastoralists' Social Capital in Southern Ethiopia. *African Journal of Agricultural and Resource Economics*, *6*(1), 1–15. https://escholarship.org/uc/item/8861k3z2

Blanco, J. M. M., & Montes-Botella, J.-L. (2017). Exploring nurtured company resilience through human capital and human resource development: Findings from Spanish manufacturing companies. *International Journal of Manpower*, *38*(5), 661–674. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216

Bodlaj, M., & Čater, B. (2019). The Impact of Environmental Turbulence on the Perceived Importance of Innovation and Innovativeness in SMEs. *Journal of Small Business Management*, *57*(sup2), 417–435. https://doi.org/10.1111/jsbm.12482

Bourdieu, P., & Wacquant, L. (1992). Interest, habitus, rationality. In *An invitation to reflective sociology* (pp. 115–140). University of Chicago Press.

Bruck, T., Naude, W., & Verwimp, P. (2013). Business under Fire: Entrepreneurship and Violent Conflict in Developing Countries. *Journal of Conflict Resolution*, *57*(1), 3–19. https://doi.org/10.1177/0022002712464846

Butts, D. (1999). Spirituality at work: An overview. *Journal of Organizational Change Management*, *12*(4), 328–331. https://doi.org/10.1108/09534819910282162

Camps, S., & Marques, P. (2014). Exploring how social capital facilitates innovation: The role of innovation enablers. *Technological Forecasting and Social Change*, *88*(October), 325–348. https://doi.org/10.1016/j.techfore.2013.10.008

Carr, J. C., Cole, M. S., Ring, J. K., & Blettner, D. P. (2011). A measure of variations in internal social capital among family firms. *Entrepreneurship: Theory and Practice*, *35*(6), 1207–1227. https://doi.org/10.1111/j.1540-6520.2011.00499.x

Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review*, *30*(7), 879–889. https://doi.org/10.1016/j.cpr.2010.01.006

Chrisman, J. J., Chua, J. H., & Steier, L. P. (2011). Resilience of family firms: An introduction. *Entrepreneurship: Theory and Practice*, *35*(6), 1107–1119. https://doi.org/10.1111/j.1540-6520.2011.00493.x

Cohen, O., Goldberg, A., Lahad, M., & Aharonson-Daniel, L. (2017). Building resilience: The relationship between information provided by municipal authorities during emergency situations and community resilience. *Technological Forecasting and Social Change*, *121*, 119–125. https://doi.org/10.1016/j.techfore.2016.11.008

Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: the Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, *18*(2), 76–82. https://doi.org/10.1002/da.10113

Connor, T. (2002). The resource-based view of strategy and its value to practising managers. *Strategic Change*, *11*(6), 307–316. https://doi.org/10.1002/jsc.593

Cope, J., Jack, S., & Rose, M. B. (2007). Social capital and entrepreneurship: An introduction. *International Small Business Journal*, *25*(3), 213–219. https://doi.org/10.1177/0266242607076523

Corner, P. D., Singh, S., & Pavlovich, K. (2017). Entrepreneurial resilience and venture failure. *International Small Business Journal: Researching Entrepreneurship*, *35*(6), 687–708. https://doi.org/10.1177/0266242616685604

Daniel, D., Sutherland, M., & Ifejika Speranza, C. (2019). The role of tenure documents for livelihood resilience in Trinidad and Tobago. *Land Use Policy*, *87*(June), 104008. https://doi.org/10.1016/j.landusepol.2019.05.027

Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, *18*(3), 301–331. https://doi.org/10.1016/S0883-9026(02)00097-6

Demmrich, S., & Huber, S. (2019). Multidimensionality of spirituality: A qualitative study among secular individuals. *Religions*, *10*(11), 1–25. https://doi.org/10.3390/rel10110613

e Cunha, M. P., Rego, A., & D'Oliveira, T. (2006). Organizational Spiritualities. *Business & Society*, *45*(2), 211–234. https://doi.org/10.1177/0007650306286737

Emery, F. E., & Trist, E. L. (1965). Emery & Tirst on organisational environment. *Human Relations*, *18*(21), 21–32.

Eniola, A. A. (2018). Entrepreneur-SME Manager Traits and Sources of Financing. In L.-P. Dana, V. Ratten, & B. Q. Honyenuga (Eds.), *African Entrepreneurship* (pp. 223–259). Springer International Publishing. https://doi.org/10.1007/978-3-319-73700-3_10

Federal Government of Nigeria. (2013). *National Enterprise Development Programme*. http://www.inter-cep.com/case-studies/nigerian-national-enterprise-development-programme-nedep/

Fisher, R., Maritz, A., & Lobo, A. (2016). Does individual resilience influence entrepreneurial success. *Academy of Entrepreneurship Journal*, *22*(2), 39–53.

Fleming, D. A., Chong, A., & Bejarano, H. D. (2014). Trust and Reciprocity in the Aftermath of Natural Disasters. *Journal of Development Studies*, *50*(11), 1482–1493. https://doi.org/10.1080/00220388.2014.936395

Gao, S. S., Sung, M. C., & Zhang, J. (2013). Risk management capability building in SMEs: A social capital perspective. *International Small Business Journal*, *31*(6), 677–700. https://doi.org/10.1177/0266242611431094

Gedajlovic, E., Honig, B., Moore, C. B., Payne, G. T., & Wright, M. (2013). Social Capital and Entrepreneurship: A Schema and Research Agenda. *Entrepreneurship: Theory and Practice*, *37*(3), 455–478. https://doi.org/10.1111/etap.12042

Gerde, V. W., & Michaelson, C. (2016). Institutional Constraints and Enablers. *Business & Society*, *55*(7), 927–933. https://doi.org/10.1177/0007650315569245

Hamann, R., Lulamile Makaula, ·, Ziervogel, G., Shearing, · Clifford, & Zhang, A. (2020). Strategic Responses to Grand Challenges: Why and How Corporations Build Community Resilience. *Journal of Business Ethics*, *161*, 835–853. https://doi.org/10.1007/s10551-019-04345-y

Harms, R., Luck, F., Kraus, S., & Walsh, S. (2014). On the motivational drivers of gray entrepreneurship: An exploratory study. *Technological Forecasting and Social Change*. https://doi.org/10.1016/j.techfore.2014.08.001

Harrison, J. L., Montgomery, C. A., & Bliss, J. C. (2016). Beyond the Monolith: The Role of Bonding, Bridging, and Linking Social Capital in the Cycle of Adaptive Capacity. *Society & Natural Resources*, *29*(5), 525–539. https://doi.org/10.1080/08941920.2015.1103389

Heirman, A., & Clarysse, B. (2007). Which tangible and intangible assets matter for innovation speed in start-Ups? *Journal of Product Innovation Management*, *24*(4), 303–315. https://doi.org/10.1111/j.1540-5885.2007.00253.x

Henley, A. (2017). Does religion influence entrepreneurial behaviour? *International Small Business Journal: Researching Entrepreneurship*, *35*(5), 597–617. https://doi.org/10.1177/0266242616656748

Iannaccone, L. R., & Klick, J. (2003). Spiritual Capital: An Introduction and Literature Review. In *Spiritual Capital Planning Meeting* (Issue September). http://www.metanexus.net/spiritual_capital/pdf/Review.pdf

Kavas, M., Jarzabkowski, P., & Nigam, A. (2019). Islamic Family Business: The Constitutive Role of Religion in Business. *Journal of Business Ethics*, *1*, 3. https://doi.org/10.1007/s10551-019-04384-5

Khoury, T. A., & Prasad, A. (2016). Entrepreneurship Amid Concurrent Institutional Constraints in Less Developed Countries. *Business and Society*. https://doi.org/10.1177/0007650314567641

Kirk, K. M., Eaves, L. J., & Martin, N. G. (1999). Self-transcendence as a measure of spirituality in a sample of older Australian twins. *Twin Research*, *2*, 80–82.

Kolade, O., & Harpham, T. (2014). Impact of cooperative membership on farmers' uptake of technological innovations in Southwest Nigeria. *Development Studies Research*, *1*(1), 340–353. https://doi.org/10.1080/21665095.2014.978981

Kolade, O., Obembe, D., & Salia, S. (2019). Technological constraints to firm performance: the moderating effects of firm linkages and cooperation. *Journal of Small Business and Enterprise Development*, *26*(1), 85–104. https://doi.org/10.1108/JSBED-01-2018-0029

Kristandl, G., & Bontis, N. (2007). Constructing a definition for intangibles using the resource based view of the firm. *Management Decision*, *45*(9), 1510–1524. https://doi.org/10.1108/00251740710828744

Levenson, M. R., Jennings, P. A., Aldwin, C. M., & Shiraishi, R. W. (2005). Self-Transcendence : Conceptualization and Measurement. *Int'l J. Aging and Human*

Development, *60*(2), 127–143.

Lockett, A., Thompson, S., & Morgenstern, U. (2009). The development of the resource-based view of the firm: A critical appraisal. *International Journal of Management Reviews*, *11*(1), 9–28. https://doi.org/10.1111/j.1468-2370.2008.00252.x

Martini, B. (2020). resilience, resistance and recoverability, regional economic structure and human capital in Italy. are they related? *Applied Econometrics and International Development*, *20*(1), 47–62.

Maslow, A. H. (1962). Lessons from the Peak-Experiences. *Journal of Humanistic Psychology*, *2*(1), 9–18. https://doi.org/10.1177/002216786200200102

Masten, A. S. (2014). Global Perspectives on Resilience in Children and Youth. *Child Development*, *85*(1), 6–20. https://doi.org/10.1111/cdev.12205

McCann, J. E., & Selsky, J. (1984). Hyperturbulence and the emergence of type 5 environments. *The Academy of Management Review*, *9*(3), 460–470.

McKnight, B., & Linnenluecke, M. K. (2019). Patterns of Firm Responses to Different Types of Natural Disasters. *Business and Society*. https://doi.org/10.1177/0007650317698946

Mercy Corps. (2015). *THE ECONOMIC COSTS OF CONFLICT AND THE BENEFITS OF PEACE : Effects of Farmer-Pastoralist Conflict in Nigeria ' s Middle Belt on State , Sector , and National Economies*. https://www.mercycorps.org/research/economic-costs-conflict-nigeria

MERITUM. (2002). Guidelines for managing and reporting on intangibles: Intellectual Capital Report. In *EU- TSER Programme*.

Mosley, E., & Laborde, S. (2016). Performing under Pressure. In M. Raab, B. Lobinger, S. Hoffmann, A. Pizzera, & S. Laborde (Eds.), *Performance Psychology* (pp. 291–314). Elsevier. https://doi.org/10.1016/B978-0-12-803377-7.00018-1

Murayama, H., Nishi, M., Matsuo, E., Nofuji, Y., Shimizu, Y., Taniguchi, Y., Fujiwara, Y., & Shinkai, S. (2013). Do bonding and bridging social capital affect self-rated health, depressive mood and cognitive decline in older Japanese? A prospective cohort study. *Social Science & Medicine (1982)*, *98*, 247–252. https://doi.org/10.1016/j.socscimed.2013.09.026

Nahapiet, J., & Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. *The Academy of Management Review*, *23*(2), 242–266. https://doi.org/10.2307/259373

Neubert, M. J., Bradley, S. W., Ardianti, R., & Simiyu, E. M. (2015). The Role of Spiritual Capital in Innovation and Performance: Evidence from Developing Economies. *Entrepreneurship Theory and Practice*, 20. https://doi.org/10.1111/etap.12172

Oyelaran-Oyeyinka, B., Laditan, G. O. A., & Esubiyi, A. O. (1996). Industrial innovation in Sub-Saharan Africa: The manufacturing sector in Nigeria. *Research Policy*. https://doi.org/10.1016/S0048-7333(96)00889-X

Palmer, D. A., & Wong, M. (2013). Clarifying the Concept of Spiritual Capital. *Conference on the Social Scientific Study of Religion*, *3*(July), 10–13. http://www.socsc.hku.hk/ExCEL3/wp-content/uploads/2014/05/Concept-of-Spiritual-Capital.pdf

Pirolo, L., & Presutti, M. (2010). The Impact of Social Capital on the Start-ups' Performance Growth. *Journal of Small Business Management*, *48*(2), 197–227.

https://doi.org/10.1111/j.1540-627X.2010.00292.x

Poortinga, W. (2012). Community resilience and health: The role of bonding, bridging, and linking aspects of social capital. *Health and Place*, *18*(2), 286–295. https://doi.org/10.1016/j.healthplace.2011.09.017

Radwan, I., & Pellegrini, G. (2010). *Knowledge, productivity, and innovation in Nigeria: creating a new economy*. World Bank.

Rocha, R. G., & Pinheiro, P. G. (2020). Organizational Spirituality: Concept and Perspectives. *Journal of Business Ethics*, *1*, 3. https://doi.org/10.1007/s10551-020-04463-y

Schmitt, A., Rosing, K., Zhang, S. X., & Leatherbee, M. (2018). A dynamic model of entrepreneurial uncertainty and business opportunity identification: Exploration as a mediator and entrepreneurial self-efficacy as a moderator. *Entrepreneurship: Theory and Practice*, *42*(6), 835–859. https://doi.org/10.1177/1042258717721482

Schonlau, M. (2018). *HOTDECKVAR: Stata module for hotdeck imputation*. Boston College Department of Economics.

Sinclair, V. G., & Wallston, K. a. (2004). The development and psychometric evaluation of the Brief Resilient Coping Scale. *Assessment*, *11*(1), 94–101. https://doi.org/10.1177/1073191103258144

Stam, W., Arzlanian, S., & Elfring, T. (2014). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of Business Venturing*, *29*(1), 152–173. https://doi.org/10.1016/j.jbusvent.2013.01.002

Stylos, N., Vassiliadis, C. A., Bellou, V., & Andronikidis, A. (2016). Destination images, holistic images and personal normative beliefs: Predictors of intention to revisit a destination. *Tourism Management*, *53*, 40–60. https://doi.org/10.1016/j.tourman.2015.09.006

The Economist Intelligence Unit. (2015). *Enabling a more productive Nigeria: powering SMEs*.

Thrash, T. M., & Elliot, A. J. (2003). Inspiration as a psychological construct. *Journal of Personality and Social Psychology*, *84*(4), 871–889. https://doi.org/10.1037/0022-3514.84.4.871

Transparency International. (2019). *Transparency International - Nigeria*. Nigeria Corruption Perception Index. https://www.transparency.org/country/NGA

Tsai, K.-H., & Yang, S.-Y. (2013). Firm innovativeness and business performance: The joint moderating effects of market turbulence and competition. *Industrial Marketing Management*, *42*(8), 1279–1294. https://doi.org/10.1016/j.indmarman.2013.06.001

United Nations. (2018). *Nigeria: population estimate 2018*. UN Country Profiles. http://data.un.org/en/iso/ng.html

United States Commercial Service. (2019). *Nigeria - Market Challenges*. Nigeria Country Commercial Guide. https://www.export.gov/article?id=Nigeria-Market-Challenges

Unruh, H. R., & Sider, R. J. (2005). Social Capital and Spiritual Capital. In *Saving Souls, Serving Society* (pp. 217–238). Oxford University Press. https://doi.org/10.1093/0195161556.003.0011

Van Buren, H. J., Syed, J., & Mir, R. (2020). Religion as a Macro Social Force Affecting

Business: Concepts, Questions, and Future Research. *Business & Society*, *59*(5), 799–822. https://doi.org/10.1177/0007650319845097

Verter, B. (2003). Spiritual Capital: Theorizing Religion with Bourdieu against Bourdieu. *Sociological Theory*, *21*(2), 150–174. https://doi.org/10.1111/1467-9558.00182

Welter, F., Smallbone, D., & Friederike Welter, by. (2011). Institutional Perspectives on Entrepreneurial Behavior in Challenging Environments. *Journal of Small Business Management*, *49*(1), 107–125. https://doi.org/10.1111/j.1540-627X.2010.00317.x

Welter, F., Xheneti, M., & Smallbone, D. (2018). Entrepreneurial resourcefulness in unstable institutional contexts: The example of European Union borderlands. *Strategic Entrepreneurship Journal*, *12*(1), 23–53. https://doi.org/10.1002/sej.1274

World Bank. (2013). *Nigeria Economic Report* (Issue 1). http://documents.worldbank.org/curated/en/2013/05/17708026/nigeria-economic-report

World Bank. (2018). *Doing Business in Nigeria 2018*. www.worldbank.org

The Economist Intelligence Unit (2015), Enabling a More Productive Nigeria: Powering SMEs, London, UK.

United Nations (2018), 'Nigeria: population estimate 2018', accessed 23 July 2018 at http://data.un.org/en/iso/ng.html.