



Received: 25 November 2016  
Accepted: 12 March 2017  
Published: 09 May 2017

\*Corresponding author: Ahmed Agyapong, KNUST School of Business, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana  
E-mail: [deedat31@yahoo.co.uk](mailto:deedat31@yahoo.co.uk)

Reviewing editor:  
Justin L. Davis, University of West Florida, USA

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## MANAGEMENT | RESEARCH ARTICLE

# Nexus between social capital and performance of micro and small firms in an emerging economy: The mediating role of innovation

Frederick Owusu Agyapong<sup>1</sup>, Ahmed Agyapong<sup>1\*</sup> and Kofi Poku<sup>1</sup>

**Abstract:** The purpose of this study was to examine the relationship among social capital, innovation, and performance of micro and small businesses (MSBs) in emerging economies using data from a sub-Saharan African Country—Ghana. Specifically, the study sought to examine the mediating role of innovation in the relationship between social capital and performance. The study relied on a survey design and a cross-sectional data collected with the aid of questionnaire from 500 MSBs operating in the Ashanti Region of Ghana. The scales and measures of the study were validated using confirmatory factor analysis in LISREL 8.50, while the study's proposed model was estimated using ordinary least square regression analysis in SPSS 20. The following results were obtained: (1) social capital positively influenced performance, (2) there is positive relationship between innovation and performance, (3) social capital has a positive effect on innovation, and (4) innovation was observed to partially mediate the relationship between social capital and performance. The results indicate the important role social capital and innovation play in the success of MSBs in emerging economies and the fact that managers and owners of such businesses need to pay attention to these concepts and use them to their advantage.

### ABOUT THE AUTHOR

Ahmed Agyapong holds PhD in Strategic Management from Kwame Nkrumah University of Science and Technology (KNUST). Dr Agyapong lectures in Strategic Management and Policy, Marketing Management, Competitive Analysis and Sociology. Ahmed is a researcher specialized in Corporate Development and Strategic Management of organizations. His research interests focuses on issues of entrepreneurship development in the informal sector and management strategy execution for performance. He serves as a mentor, consultant and trainer for private and public organizations at both national and international levels. He coordinates a research and intervention programs aimed at improving the practices of strategic management in micro-, small-, and large-scale enterprises in Ghana. Ahmed has held several positions in the University including Head of Department for Marketing and Corporate Strategy, Vice Dean and Acting Dean for the School of Business, KNUST. He is currently the Deputy Director of the Institute of Distance Learning, KNUST.

### PUBLIC INTEREST STATEMENT

Micro and small businesses (MSBs) have played major and pivotal role in the growth of both developed and developing economies. The purpose of this study was to examine (1) the relationship between social capital and performance; (2) the relationship between social capital and innovation; (3) the relationship between innovation and performance; and (4) the mediating role of innovation in the relationship between social capital and performance of MSBs. The study relied on a data collected using questionnaire from 500 MSBs operating in the Ashanti Region of Ghana. The study showed that social capital positively and significantly influences firms' innovativeness and performance. Innovation was also seen to influence positively, the performance of businesses. Finally, innovation was observed to partially mediate the relationship between social capital and performance. The results indicate the important role social capital and innovation play in the success of MSBs in emerging economies. Managers are therefore advised to pay attention to these concepts and use them in their strategic decisions.

**Subjects: Strategic Management; Leadership; Corporate Governance; Entrepreneurship and Small Business Management; Human Resource Management; International Business; Marketing; Organizational Studies**

**Keywords: Social capital; innovation; performance; Ghana**

### 1. Introduction

Micro and small businesses (MSBs) play an important role in the economic growth of both developing and developed economies. These MSBs contribute to not only the growth of the national gross domestic product (GDP) but also employment creation (Abor & Quartey, 2010). MSBs have contributed significantly to the socioeconomic development of both developed and developing economies through employment creation, provision of goods and services, and tax and export revenue generation, in addition to supporting economic growth, livelihoods in developing countries, social stability, and economic diversity. Their contribution in the sub-Saharan African nation, Ghana, is mainly in the manufacturing, agriculture, and services sectors. Research shows that the MSBs contribute over 55% to the GDP accounts, and over 65% to the aggregate employment in countries with a high-income level (Frimpong, 2013). MSBs' contribution to GDP is 75% in Germany, 60% in China, 55.3% in Japan, 50% in Korea, and 47.3% in Malaysia (Frimpong, 2013). MSBs constitute about 91% of the businesses in South Africa, and 70% of the manufacturing sector in Nigeria. In Tanzania, the MSBs sector contributes over 33% to the country's GDP, while in South Africa, it contributes about 52–57% and also accounts for about 91% of the formal businesses (Frimpong, 2013). In Ghana, the sector constitutes 85% of the total employment in the manufacturing sector, 92% of all businesses, and 70% of the total GDP (Abor & Quartey, 2010; Frimpong, 2013). Mensah (2004) also indicated that MSBs serve as the catalyst for the economic growth of in Ghana since they are the major source of income and employment.

Despite MSBs' contributions to economic development and social interventions, the sector faces several challenges, including those related to finance, resource management, strategic planning, and lack of suitable platforms to enable innovation of products, services, processes solutions, and marketing capabilities. The owners of many such businesses have either minimal or no managerial capabilities or technical expertise. Most MSBs are unstable and normally do not survive beyond three years. There are several constraints that hinder the survival of MSBs, especially in Africa. These constraints are low managerial capabilities, lack of information from the market, inadequate resources such as human and financial resources (Robson, Haugh, & Obeng, 2009), low levels of innovative capabilities, and the inability to create and exploit their embedded social capital to increase innovativeness and performance.

The concepts of innovation and social capital have become prominent because of their ability to help businesses remain market leaders and increase their profitability and growth. Social capital influences the efficiency of strategic businesses or firms' objectives and initiatives (Lechner, Frankenberger, & Floyd, 2010), their innovativeness, and their transformation. In addition, there is a strong and positive relationship between social capital and firms' sustainability (Florin, Lubatkin, & Schulze, 2003; Shoaib-Akhtar, Ismail, & Hussain, 2014; Vu Hoang Nam, 2014). Social capital has been attributed to help businesses develop better communication, more efficient collective actions, improved stock management, and efficient use of intellectual capital, as well as better access to resources required for business growth (Adler & Kwon, 2002; Hansen, 1999; Leana & Van Buren, 1999; Nahapiet & Ghoshal, 1998). Moreover, social capital facilitates information flow and can help the start-ups of many new businesses become innovative, thereby improving their performance (Griffith & Harvey, 2004). MSBs have depicted good innovation results in recent times (Rosenbusch, Brinckmann, & Bausch, 2011) through social networks. Innovation, on the other hand, has shown a positive and significant measure on the performance and success of businesses (Ahuja & Katila, 2001; Chen, Lai, & Wen, 2006; Hlland, 1999; Saad, Shamsuri, & Mazzarol, 2012). Thus, innovation could be considered as mediating the positive and significant relationship between social capital and MSBs' performance.

Despite the significant studies conducted on social capital and innovation, and their individual effect on the performance of MSBs (Hernández-Carrión, Camarero-Izquierdo, & Gutiérrez-Cillán, 2016; Monteiro, da Palma, & Lopes, 2012; Rhee & Ji, 2011), very little attention has been accorded to how innovation could play a significant role in the relationship between social capital and the performance of micro and small businesses. Moreover, most studies on social capital and innovation in performance have focused on developed economies such as North America and Europe (Arregle, Hitt, Sirmon, & Very, 2007; Hoffman, Hoelscher, & Sorenson, 2006; Lima, Andrade, & Grzybovski, 2005). Very little focus has been given to this area in developing economies such as Asia, China, and some parts of Europe. However, there has been little or no focus on the development of social capital and innovative activities of small businesses in sub-Saharan Africa.

Therefore, this study seeks to investigate the relationships among social capital, innovation, and performance of MSBs in emerging economies using data from a sub-Saharan African country—Ghana. The objectives of the study are as follows: (1) to examine the relationship between social capital and the performance of micro and small businesses in emerging economies, using data from Ghana; (2) to examine the relationship between the various dimensions of firm innovation and performance of micro and small firms; and (3) to examine how each dimension of innovation mediates the effect of the social capital and performance relationship in the emerging economies, using empirical data from Ghana. This study contributes to the literature by providing investigations on the social capital–performance relationship. It also helps in understanding the mediating role of innovation in the social capital–performance relationship.

The remainder of the paper is organized as follows. Section 2 provides a review of the relevant theoretical literature, the conceptual framework, and Section 3 presents the theory and hypothesis development. Section 4 discusses the data and methodology, Section 5 presents the analysis results. Finally, Section 6 summarizes the major findings and provides recommendations for practice and further studies.

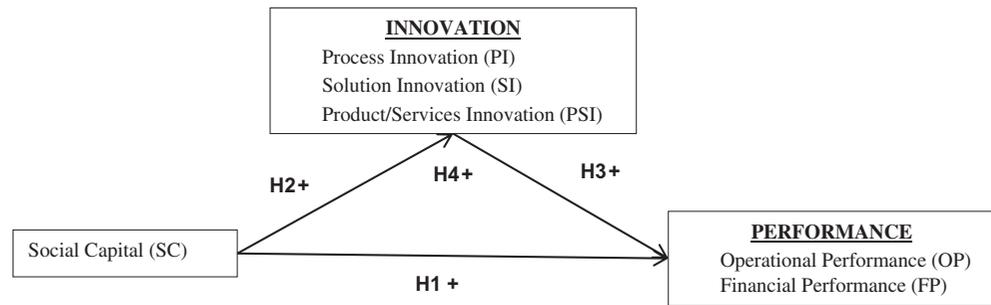
## 2. Literature review

### 2.1. Characteristics of MSBs

According to the European Commission (EC), MSBs are enterprises that employ fewer than 250 people, and whose annual sales and/or total assets do not exceed \$67 million and \$56 million, respectively. Small enterprises employ fewer than 50 persons and have annual sales or total assets not exceeding \$13 million. In addition, microenterprises employ fewer than 10 persons and have annual sales or total assets not exceeding \$3 million (United States Agency for International Development, 2007). The Multilateral Investment Guarantee Agency (MIGA) and the International Finance Corporation (IFC) define small enterprises as firms with fewer than 50 employees, less than \$3 million total assets, and less than \$3 million total annual sales. Unlike the EC definition, the MIGA and IFC definitions do not consider the staff headcount threshold mandatory for an enterprise to qualify as an SME (United States Agency for International Development, 2007). The Asia Pacific Economic Cooperation (APEC) defines SMEs as enterprises with less than 100 people, wherein, a medium-sized enterprise employs between 20 and 99 people, a small firm employs between 5 and 19, and a micro firm employs less than five employees, which includes self-employed managers (United States Agency for International Development, 2007). According to this definition, 75% of the enterprises in APEC were micro, 21% were small, and 4% were medium between 1990 and 2000 (United States Agency for International Development, 2007).

In Ghana, the most commonly used criteria for classification are the number of employees and the asset base of firms. The National Board for Small Scale Industries (1990) defines small-scale enterprises as firms with fewer than nine workers, and having assets (including plants, machinery, and buildings) worth less than 10 million Ghana cedis. According to the Ghana Statistical Service (GSS), small enterprises have less than 10 employees, while medium- and large-sized enterprises have more than 10. However, in its national accounts, the GSS considered MSBs as companies with

**Figure 1. Theoretical framework.**



up to nine employees (Kayanula & Quartey, 2000). Kayanula and Quartey, however, cautioned that the use of fixed assets' levels to define MSBs poses a challenge due to the depreciation of the local currency against the major trading currencies, which makes such definitions, from the perspective of the fixed assets level, outdated. The Ministry of Trade and Industry in Ghana, on the other hand, defines micro enterprises as firms employing up to five employees, with fixed assets not exceeding \$10,000; small enterprises as firms that employ 6–29 employees and have assets worth \$100,000; and medium enterprises as firms that employ 30–99 employees, and possess assets worth up to \$1 million. The MSBs are also categorized as follows: (a) micro comprises businesses that employ less than six people; (b) very small businesses employ six to nine people; and (c) small businesses employ more than nine but less than 30 people (Osei, Baah-Nuakoh, Tutu, & Sowa, 1993). This study adapts Osei et al. (1993)'s definition. Therefore, we define MSBs as firms with an employee strength not exceeding 30.

### 3. Theory and hypothesis development

This study seeks to examine the social capital and performance of MSBs, and the mediating role of innovation. Figure 1 depicts the theoretical framework of the study.

#### 3.1. Social capital and performance of MSBs

The concept of social capital has recently attracted significant attention of diverse studies in organizations. It has become the binding force that holds institutions. It is defined as the entire resources a firm accrues through its durable network of relationships with other firms (Nahapiet & Ghoshal, 1998). It is also defined as the aggregate of the actual or potential resources that are linked to the possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition (Bourdieu, 1983). Firms benefiting from these resources contribute to their own innovativeness in terms of product development, market development, and customer relationship, among others. The social capital within organizations exists within three different groups—the high, medium, and lower responsibility groups (Camps & Marquès, 2011). The extent and features of social capital and its benefits within these groups are at different levels. This distinctiveness within these groups is attributed to the dimensions of social capital (Camps & Marquès, 2011). This concept has been viewed from both content and process perspectives. From the content perspective, three dimensions of social capital are identified—structural, cognitive, and relational (Nahapiet & Ghoshal, 1998; Pearson, Carr, & Shaw, 2008). The structural dimension is necessary for the existence of relational and cognitive dimensions, whereas the cognitive dimension is necessary for the existence of the relational dimension. From the process perspective, Nahapiet and Ghoshal proposed four drivers or dynamic factors, which enhance the creation of social capital, and also foster its creation and evolution. These drivers are stability, closure, interdependence, and interaction (Arregle et al., 2007; Bourdieu, 1983; Coleman, 1990; Misztal, 1996; Nahapiet & Ghoshal, 1998).

Studies have indicated a strong and positive relationship between social capital and firms' sustainability. This relationship is significant for all three dimensions of social capital. For complete benefit from social networks, it is imperative for entrepreneurs and firm owners and managers to develop strong ties with social, business, and personal relationships (Rooks, Szirmai, & Sserwanga, 2009).

Social capital among the members of an organization enhances their ability in sharing knowledge and transferring ideas among each other. Moreover, social capital improves the ability of businesses in gathering resources that could improve their performance (Florin et al., 2003). Different studies show how effective internal communication fosters a stronger focus on organizational results (e.g. Moynihan & Pandey, 2006). This helps individuals improve their idea generation capability and identify better ways of accomplishing tasks in the organization. Leana and Pil (2006) concluded that there is a positive relationship between social capital and corporate performance, while Geletkanycz and Hambrick (1997) reported that the relationship networks (or social capital) are important sources of information and knowledge that complement the experiences of employees, which in turn affect the organization's performance. Ofori and Sackey (2010), who aimed to assess the effects of social capital on organizational performance among the Ghana Club 100 organizations, concluded that social capital has a significant effect on organizational performance. The study further reported that organizations with high social capital would report higher firm productivity than organizations with low social capital do. The level and strength of social capital also fosters the benefit derived from cross-functional relationships from firms' various departments or functions. The benefit includes speed of work from various actors within the firm, which directly or indirectly enhances the performance of MSBs. Social capital improves the performance of MSBs by enhancing the cost reduction of transactions, which eventually generates better efficiency results (Fafchamps & Minten, 2002). Thus, we define the following hypothesis:

Hypothesis (H1): Social capital has a positive effect on both the operational and financial performance of MSBs.

### **3.2. Social capital and innovation**

The importance of social capital as a determinant of innovation has received much theoretical attention over the last few years. Social capital theory posits that certain elements of external and internal social relationships provide valuable learning resources, which are necessary for developing innovation within firms (Adler & Kwon, 2002). Social capital has also been shown to positively affect the level of innovativeness of MSBs. Carrasco-Hernández and Jiménez-Jiménez (2013) proposed that the social relationship between organizations and employees enhances innovation development in these firms. The study suggested that family firms with managers or actors who have objectives of pursuing innovation could use social capital as a vital vehicle. The social network of firms has a positive effect on the innovations of firms, and these positive effects are more strong when the innovations are radical (Carmona-Lavado, Cuevas-Rodríguez, & Cabello-Medina, 2010). Another study concludes that creating social capital is associated with and enhances innovation by improving the knowledge performance of businesses (Cooke & Wills, 1999). Vu Hoang Nam (2014) studied the role of social capital in the development of manufacturing MSBs in Vietnam and concluded that social capital has a positive and significant relationship with innovation. Social capital leads to development of confidence and high levels of trust among employees (Tsai & Huang, 2008). Such a relationship encourages idea and knowledge exchange among employees, which is more likely to stimulate innovation in processes, products/services, solutions, and behavior among firms (Subramaniam & Youndt, 2005). Moreover, Kogut and Zander (1992) argue that richer firm-internal communication contributes to a faster build-up of new technological knowledge, which could lead to process, product, or customer service innovation. Since the African culture is collective in nature, there are high levels of social capital build-up and informal relationships among the employees. Micro and small businesses in most African countries operate in the informal sector, and therefore, the informal communications lead to trust and encourage team building, eventually leading to innovation if well managed. This study, therefore, proposes the following hypotheses:

Hypothesis (H2a): Social capital has a positive and direct effect on the process innovativeness of MSBs.

Hypothesis (H2b): Social capital has a positive and direct effect on the solution innovativeness of MSBs.

Hypothesis (H2c): Social capital has a positive and direct effect on the product/service innovativeness of MSBs.

### **3.3. Firms' innovation and performance**

Presently, innovation has been considered one of the most significant aspects of business studies. It has become the basis for developing new products and services, or possible modifications to existing ones. In addition, innovation is important for understanding the rapid changes in the global economy. This has enabled firms to provide an effective response to market requirements (Moreira, 2010). Innovation is the generation, development, and implementation, or expansion of new products, services, processes, technologies, administrative systems, or structures in an organization (Kor & Maden, 2013). Innovation relates to product development, process control, market development, and provision of solutions, among other functions. Lin, Chen, and Kuan-Shun Chiu (2010) define innovation capability as the ability of firms to absorb and use external information for adopting new knowledge. Innovation could be considered both an output and a process (Love, Roper, & Du, 2009; Salavou & Lioukas, 2003; Van de Ven & Poole, 1989). Both the innovation process and the resulting innovation outputs influence the performance of MSBs (Rosenbusch et al., 2011). Organizational innovation could be described based on administrative and technical, product and process, and radical and incremental innovation (Edquist, 2001; Kor & Maden, 2013; Vyas, 2009). Lin et al. (2010) identified five types of innovation—product, process, marketing, service, and administrative. However, this study will examine three types of innovation—process, solution, and product/services innovation. Studies show that MSB growth is positively and significantly influenced by the innovative performance of the firm (Vu Hoang Nam, 2014; Zerenler, Hasiloglu, & Sezgin, 2008). Therefore, the need to use patents for innovative protection has a positive correlation with the performance of micro and small businesses. Thus, firms need to adopt more innovative marketing activities to ensure that they can employ appropriate strategies. Innovativeness has a positive influence on the performance of micro and small family businesses in Ghana (Acquaah & Agyapong, 2015). Innovation has become a necessity in today's business. Businesses that do not innovate have the highest probability of collapsing. In Ghana, customers are very price sensitive in many parts of the market, and accordingly, becoming a market leader would involve being sufficiently innovative to meet the customers' needs. This supports the hypothesis that innovativeness capabilities of both the members of a firm, as well as the firm's overall level of innovativeness have a direct and positive relationship with the firm performance. Innovative MSBs show more growth than non-innovative MSBs do (Jalali, Jalali, Shamsodin, Dadbeh, & Sharifi, 2013). Innovation among MSBs is required not only for the survival of the organization, but also to increase the business performance. Kim and Mauborgne (1997) also argue that innovation is required to make a company unique, thereby achieving competitive advantage. The innovative capability of firms and those of the individuals in the firm have a positive causal relationship with the performance of MSBs (Yokakul, Zawdie, & Booth, 2011). Innovative capability has a direct and positive influence on firms' performance outcomes (Lee & Hsieh, 2010). Hence, this study inferred that the level of innovativeness in an organization is an important determinant of organizational performance. Thus, the following hypotheses were proposed:

Hypothesis (H3a): Process innovativeness has a positive and direct effect on both operational and financial performance of MSBs.

Hypothesis (H3b): Solution innovativeness has a positive and direct effect on both operational and financial performance of MSBs.

Hypothesis (H3c): Product/services innovativeness has a positive and direct effect on both operational and financial performance of MSBs.

### **3.4. Social capital, innovation, and performance of MSBs**

Social capital has a direct positive impact on firms' performance. Researchers have also identified innovation as a key determinant of organizational success and for gaining a competitive advantage. The fit between social capital resources of individuals in a firm and the firms' unique resources influence its innovation (Stam & Elfring, 2008), which is the growth engine of a firm (Subrahmanya, Mathirajan, & Krishnaswamy, 2010; Uz Kurt, Kumar, Semih Kimzan, & Eminoglu, 2013). As Inkpen and Tsang (2005) noted, the social network relationship developed within an organization because of social capital, could help create new knowledge from this relationship, lead to exchange of skills among employees, build confidence that is needed to develop these skills, motivation to develop the knowledge, recognizing the value of the new knowledge and information and also practicing it. Vu Hoang Nam (2014) studied the role of social capital in the development of manufacturing MSBs in Vietnam and concluded that social capital has a positive and significant relationship with innovation. Innovation also influences the performance of manufacturing MSBs. Small businesses possess the informal relationship and connections that facilitate collaboration and knowledge exchange, which are both fundamental for innovation. The innovation built through such exchanges and new knowledge, increases firms' performance outcomes. In addition, innovative SMEs could exploit their social capital to share and test ideas, identify new opportunities and detect trends in business environment changes. Therefore, we posit that SMEs are well positioned to use their social network relationship to achieve competitive advantage through innovation. The innovative capabilities of individuals in a firm and those of the firm have a strong mediating role toward social capital in its relationship with business performance (Yokakul et al., 2011). They have also been found to act as a strong mediator for other success such as social capital (Yokakul et al., 2011). The study finally proposed the following hypotheses:

Hypothesis (H4a): Process innovation positively mediates the relationship between social capital and performance of MSBs.

Hypothesis (H4b): Solution innovation positively mediates the relationship between social capital and performance of MSBs.

Hypothesis (H4c): Product/service innovation positively mediates the relationship between social capital and performance of MSBs.

## **4. Methodology**

The objectives of this study were to examine the relationship between social capital and the performance of MSBs and that between the various dimensions of firm innovation and performance; and to examine how each dimension of innovation mediates the effects of social capital and performance relationship. The study was conducted with data gathered from business owners and the staff of MSBs in Ghana. The respondents were asked to provide information on their firms and their experiences within the firms regarding the level of innovations and utilization of social capital traits. The research was limited to the Ashanti region in Ghana, which is the highest populated region in the country. A convenience sample was used to select 500 Chief Executive Officers (CEOs) from MSBs. Consistent with previous research (Makanyeza & Dzvuke, 2015), only one person (CEO) was asked to fill the questionnaire for their firms. Because MSBs are homogeneous and operate in the informal sectors of the economy, a sample size of 500 is considered large and representative. Since most of these businesses are unregistered and operate in the informal sector, it was difficult to obtain official information about them.

This questionnaire was moderated by a team of three academic researchers in the field of small business strategies and entrepreneurship, and five selected experienced CEOs of MSBs. The moderated self-administered, structured questionnaires were pilot tested and final adjustments were

made to obtain more credible instruments, which were then administered to the research participants. The study employed the services of four field assistants who were trained to understand the objectives of the study and how they could guide the respondents to administer the questionnaires. Overall, 329 questionnaires were returned, constituting 65.8% of the total questionnaires administered. For minimizing the problem of common method variance (CMV), all the measures of social capital, innovation, and performance were intermingled. Moreover, the respondents were assured of confidentiality of the data and information provided to us. Previous studies have used this technique in data collection to help minimize CMV problems (e.g. Acquaah & Agyapong, 2015; Acquaah, Amoako-Gyampah, & Jayaram, 2011).

#### **4.1. Measurement of constructs**

##### *4.1.1. Performance*

The performance construct was measured using both financial and nonfinancial indicators (Huo, 2012). The study measured the financial performance indicator with sale volumes, growth in sales, return on sale, return on investment, and growth in profitability. Operational performance was measured with the following: the extent of flexibility in the process of delivery of product/service, how consistently the customer needs are met, the extent of failure in product/service, the ability to manage varied customer/market needs, production/operation cost, the speed of serving customers, and the rate of introduction of new products/services into the market. A seven-point Likert scale was used and the respondents were asked to state their firms' performance relative to that of competitors, ranging from "1 = much worse than" to "7 = much better than".

##### *4.1.2. Innovation*

Innovation was conceptualized as both a precursor and a mediator in this study. It was measured in three different levels using process, solution, and product and service innovation, as used by Chirico and Salvato (2014). The study treated innovation at its decomposed level to observe how each type of innovation mediates the performance of MSBs through social capital. The innovation dimensions include process, solution innovation, and product/services innovation. A seven-point Likert scale was used and the respondents were asked to state their firms' innovativeness relative to competitors' innovation, ranging from "1 = much worse than" to "7 = much better than".

##### *4.1.3. Social capital*

Social capital is studied in this context by using the three dimensions of social capital—structural, relational, and cognitive (Andrews, 2010, 2011; Leana & Pil, 2006). However, the study treated social capital at the composite level. The three dimensions of social capital were treated as a composite variable by averaging their composites already created. Theoretically, creating a composite for social capital from cognitive, relational, and structural dimensions was sound given that previous research has conceived them as subcomponents of social capital. Moreover, the initial confirmatory factor analysis (CFA) performed on the dimensions indicated several cross loadings, suggesting that they are measuring the same thing. In addition, statistically, the correlational analysis results (see Table 2) also confirm strong significant positive associations between them, and thus, the researcher was able to treat them as a single indicant variable for examining the study's propositions. The factors used to measure social capital include open and honest communication within the staff, a cross-departmental approach to drive service improvement, the level of information sharing among staff, the level of trust between officers, and whether there is a shared vision and objectives among the staff of the firm. A seven-point Likert scale was used and the respondents were asked to indicate the extent of the presence of social capital in their firms relative to that of competitors, ranging from "1 = much weaker than" to "7 = much stronger than".

**Table 1. Goodness-of-fit indices (GOFIs)**

Construct	$\chi^2$	DF	RMSEA	NNFI	CFI	SRMR	PV	RMSR
Process innovativeness	9.35	5.00	0.0520	0.9860	0.9930	0.0222	0.0961	0.0534
Solution innovativeness	4.25	2.00	0.0590	0.9900	0.9970	0.0152	0.1194	0.0344
Product/service	5.33	2.00	0.0710	0.9830	0.9940	0.0168	0.0696	0.0398
Operational performance	1.51	5.00	0.001	1.0080	1.0000	0.0064	0.9119	0.0141
Financial performance	1.01	2.00	0.001	1.0040	1.0000	0.0072	0.6043	0.0148
Social capital	14.37	9.00	0.0430	0.9700	0.9800	0.0280	0.1096	0.0747

Notes:  $\chi^2$  = Chi-square; DF = degree of freedom; RMSEA = root mean square error of approximation; NNFI = Bentler non-normed fit index; CFI = comparative fit index.

#### 4.1.4. Control variables

Consistent with previous research, the study controlled for three firm characteristics—firm size (number of employees); firm age (number of years of existence in the industry), and firm industry (measured as manufacturing, services, or otherwise); and finally, firm ownership (family owned or nonfamily owned).

#### 4.2. Validity and reliability assessment

The research employed CFA as a statistical tool, using LISREL (8.5) to examine the validity and reliability of the measures employed in this study. This is because the measures used in this study were extracted from previous studies (see Table 3), the covariance matrix created was used as the input for the analyses. Among the eight measures, six were consistent within the context of the study. Financial performance and product/services innovation also had five measures, of which four were consistent with the study. The study also employed the maximum likelihood as an estimated method (Vieira, 2011). Three CFAs were conducted per the concept of investigation for demonstrating the unnecessary deletion of items, and to show unidimensionality of the scales. The first construct to be examined was social capital, which was treated as a composite variable with measures from all three dimensions—structural, relational, and cognitive. The second variable, which was the focus of this study, was innovation, which was treated at the decomposed level with three main focus areas—product and services, solution, and process innovation. Finally, performance was considered with two firm performance dimensions, namely operational and financial performance. Following the recommended steps by Hair, Black, Babin, and Anderson (2014), in modifying models, the satisfactory goodness-of-fit indices (GOFIs) were achieved for the CFA, as shown in Table 1. Vieira (2011) and Hair et al. (2014) recommended the threshold for the chosen GOFIs that were achieved, since all the GOFIs figures for the chosen criteria were within the recommended threshold. The measures retained for the analysis after the CFA test are shown in Table 2, which depicts their standardized loading with their associated *t*-values as well as the composite reliability for the constructs and the Cronbach’s alpha values. The figures suggest convergent validity for the study with all CR values being above the minimum of 0.60, and the standard loading being positive and significant at 1%.

Discriminant validity was tested by comparing the square root of the average variance extracted (AVE) coefficients with the highest correlation of specific constructs. Table 3 shows that both the construct and the discriminant validity were achieved. The results also show the number of items retained under each construct.

**Table 2. Confirmatory factor analysis results**

<b>Construct/Measure</b>	<b>Standardized loading</b>	<b>t' Value</b>
<i>Social capital (CR = 0.8558; CA = 0.818)</i>		
Staffs engage in open and honest communication with one another	0.69	9.17
Cross-departmental working is important in driving service improvement	0.56	Fixed
Staffs keep each other informed at all times	0.69	9.2
There is a high level of trust between officers	0.78	9.85
Workers share the same ambitions and vision for the company	0.79	9.9
The authority's mission, values, and objectives are clearly and widely understood and owned by all staff in the service	0.71	9.35
<i>Process innovativeness (CR = 0.8652; CA = 0.852)</i>		
Improvising new methods when you cannot solve a problem using conventional methods	0.7	Fixed
Introducing new service delivery processes to add value	0.77	12.41
Pursuing continuous improvement in operational processes	0.56	9.26
Welcoming new/unconventional ideas	0.75	12.13
Seeking novel ways to tackle problems/challenges	0.82	12.97
<i>Solution innovativeness (CR = 0.8746; CA = 0.874)</i>		
Presenting clients with unique solutions they may not have considered	0.91	Fixed
Presenting innovative solutions to clients	0.84	19.09
Providing innovative ideas and solutions to clients	0.8	17.75
Suggesting new ideas to provide innovative solutions to customers' problems	0.63	12.54
<i>Product/Service (CR = 0.9106; CA = 0.854)</i>		
Developing new products that enhance service to customers	0.82	Fixed
Delivering cutting-edge services/products that are not delivered by competitors	0.87	16.99
Promoting new product offerings	0.77	15.7
Implementing new ideas within the firm	0.7	13.91
<i>Operational performance (CR = 0.9151; CA = 0.823)</i>		
The extent of flexibility in production/service delivery processes	0.82	16.66
Consistency in meeting the needs of customers	0.83	Fixed
Cost of production/operation	0.76	15.28
The extent of product returns/service failure	0.78	15.75
The ability to handle varied customer/market needs	0.79	16.1
<i>Financial performance (CR = 0.8918; CA = 0.845)</i>		
Sales volume	0.92	Fixed
Growth in sales	0.9	23.41
Return on sales (ROS)	0.79	18.81
Growth in ROI	0.65	13.71

**Table 3. Interconstruct correlations and average variance extracted (AVE)**

Variable	SC	PSI	SI	PI	OP	FP
Social capital	(0.500)					
Product/Services innovation	0.626**	(0.6277)				
Solution innovation	0.587**	0.798**	(0.639)			
Process innovation	0.589**	0.766**	0.790**	(0.528)		
Operational performance	0.576**	0.681**	0.709**	0.694**	(0.633)	
Financial performance	0.528**	0.628**	0.578**	0.599**	0.713**	(0.677)

Notes: SC = social capital, SI = solution innovation; PSI = product/services innovation; OP = operational performance; FP = financial performance.

\*Significance level at  $p < 0.05$  (2-tailed test).

\*\*Significance level at  $p < 0.01$  (2-tailed test).

**Table 4. Profile of firms and respondents**

		n	%
Firm industry type	Manufacturing	86	26.3
	Service	182	55.7
	Other	54	16.5
Firm ownership type	Family owned	191	58.4
	Nonfamily owned	131	40.1
Firm type	Joint venture/partnership	94	28.7
	Private limited liability company	70	21.4
	Other	71	21.7
Firm age (years)	5 or less	37	11.3
	6 to 10	75	22.9
	11 to 15	85	26
	16 to 20	51	15.6
	Above 20	76	23.2
Gender	Male	221	67.6
	Female	102	31.2
Respondent's age (years)	20 to 29	131	40.1
	30 to 39	110	33.6
	40 to 49	52	15.9
	50+	30	9.2
Respondent's position	Owner-Manager	52	15.9
	Executive	68	20.8
	Manager	98	30
	Other	100	30.6

Source: Field study (2016).

**Table 5. Descriptive statistics and correlational results**

Variable:	1	2	3	4	5	6	7	8	9	10	Mean	SD
1 Firm age	1											
2 Firm size	0.214**	1										
3 Firm industry <sup>a</sup>	-0.052	0.119*	1									
4 Firm ownership <sup>b</sup>	-0.163**	-0.037	-0.016	1								
5 Social capital	-0.046	0.024	0.105	0.194**	1						4.93	1.067
6 Process innovation	-0.165**	0.066	0.138*	0.078	0.626**	1					5.08	1.189
7 Solution innovation	-0.083	0.058	0.192**	0.044	0.587**	0.798**	1				5.12	1.124
8 Product and services innovation	-0.123*	0.017	0.104	0.109*	0.589**	0.766**	0.790**	1			5.07	1.116
9 Operational performance	-0.067	0.055	0.065	0.049	0.576**	0.681**	0.709**	0.694**	1		4.98	1.054
10 Financial performance	-0.053	0.042	0.067	0.006	0.528**	0.628**	0.578**	0.599**	0.713**	1	5.04	1.140

<sup>a</sup>Firm industry: Service = 1; Manufacturing & others = 0.

<sup>b</sup>Ownership: Family business = 1; Nonfamily = 0.

\*Significance level at  $p < 0.05$ .

\*\*Significance level at  $p < 0.01$ .

Source: Field study (2016).

## 5. Results

### 5.1. Background information on firms and respondents

Table 4 presents the characteristics and background of the respondents and the firms involved in this study.

### 5.2. Descriptive statistics and correlation analysis results

The descriptive statistics results regarding the study variables of interest are presented in Table 5. The average MSB in Ghana has an adequate level of social capital with a given mean = 4.93 and SD = 1.06, as shown by the study. These participated businesses adequately pursue innovation through its various forms—product/services, solution, and process innovation, with a respective mean of 5.08, 5.12, and 5.07, and SD of 1.19, 1.12, and 1.12, respectively. For the performance level, the study realized that the businesses that participated in the study have an adequate level of performance in the two dimensions—operational and financial performance, with a respective mean of 4.98 and 5.04, and SD of 1.05 and 1.14, respectively. However, the average level of a firm’s financial performance is slightly above its operational performance.

The correlational results from the variable of interest, as shown in Table 5, indicate that all the interested variables are positively associated with both dimensions of firms’ performance for each direct path. Thus, social capital is significantly related to both operational and financial performance.

### 5.3. Model estimation and underlying assumptions

The study employed the use of a hierarchical regression analysis, which is an ordinary least square analysis, to estimate the proposed study model. The regression analysis helped estimate the unique effect of each path proposed by the theory after controlling for the model with the firm characteristics. The goodness of results from the ordinary least squares (OLS) regression analysis must be subjected to some underlying assumption (Fields, 2009; Hair et al., 2014). The assumptions of normality, linearity, and multicollinearity were all met. The study further employed the collinearity diagnostics to conduct further checks on the multicollinearity, where the variance inflation factors (VIFs) were all below 5.0 (see Table 6), suggesting that the assumption of multicollinearity was not violated in the study.

**Table 6. OLS regression analysis results**

	Unstandardize estimates										VIF
	Control variables		Direct effect path				Indirect effect path		Financial performance		
	Operational performance	Financial performance	Process innovation	Solution innovation	Product and services innovation	operation performance	Financial performance	operation performance	Financial performance		
<i>Control path</i>											
Firm age (years)	-0.05 (-1.16)	-0.08 (-1.50)	-0.14 (-3.71)	-0.05 (-1.32)	-0.09 (-2.34)**	-0.05 (-1.48)	-0.07 (-1.86)*	0.0001 (0.004)	-0.01 (-0.35)	1.138	
Firm size	0.10 (1.12)	0.098 (1.00)	0.126 (1.73)*	0.06 (0.81)	0.04 (0.48)	0.09 (1.22)	0.08 (1.06)	0.046 (0.78)	0.04 (0.52)	1.083	
Firm industry	0.078 (0.65)	0.08 (0.63)	0.09 (1.02)	0.252 (2.46)**	0.03 (0.32)	-0.05 (-0.54)	-0.05 (-0.49)	-0.14 (-1.82)*	-0.11 (-1.11)	1.069	
Firm ownership	0.03 (0.28)	-0.04 (-0.34)	-0.16 (-1.64)*	-0.23 (-2.25)**	-0.10 (-0.92)	-0.19 (-1.95)*	-0.28 (-2.53)**	-0.08 (-1.03)	-0.19 (-1.97)*	1.078	
<i>Hypothesised</i>											
Social capital			0.65 (14.3)**	0.61 (12.69)**	0.64 (12.6)**	0.58 (12.6)**	0.60 (11.75)**	0.17 (3.50)**	0.22 (3.79)**	1.84	
Process innovation								0.13 (2.06)**	0.28 (3.56)**	3.534	
Solution innovation								0.28 (4.26)**	0.07 (0.95)	3.545	
Product and services innovation								0.24 (4.08)**	0.22 (3.10)**	3.092	
R <sup>2</sup>	0.009	0.011	0.429	0.368	0.357	0.347	0.317	0.586	0.475		
Adjusted R <sup>2</sup>	-0.003	-0.001	0.4203	0.3583	0.3470	0.3367	0.3064	0.576	0.462		
DR <sup>2</sup>	0.009	0.011	0.429	0.368	0.357	0.347	0.317	0.239	0.158		
DF (DF)	0.76 (309)	0.88 (309)	46.4 (308)**	35.9 (308)**	34.2 (308)**	32.8 (308)**	28.6 (308)**	58.9 (305)**	30.7 (305)**		
Sig. DF	0.551	0.476	1.161	5.845	8.302	8.677	7.530	4.375	2.262		
Durbin-Watson	1.93	1.78	1.907	1.928	1.897	2.068	1.714	1.912	1.717		

Note: t-values are denoted in parentheses.

\*Significance level at  $p < 0.05$ .

\*\*Significance level at  $p < 0.01$ .

#### 5.4. Hierarchical model specification

From the study, the dependent variable performance is treated at the decomposed level (i.e. operational and financial performance). Further, given that the mediation term or variable innovation was also handled at the decomposed level (i.e. process, solution, and product/services innovation), eight models were estimated consisting of four hierarchical models for each dependent variable. The models estimated are specified below:

##### 5.4.1. Dependent variable: Operational performance (OP)

$$\begin{aligned} \text{Model 1} & \quad \text{OP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + \varepsilon \\ \text{Model 2} & \quad \text{OP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + \varepsilon \\ \text{Model 3} & \quad \text{OP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + b_6\text{PI} + \varepsilon \\ \text{Model 4} & \quad \text{OP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + b_6\text{SI} + \varepsilon \\ \text{Model 5} & \quad \text{OP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + b_6\text{PSI} + \varepsilon \end{aligned}$$

##### 5.4.2. Dependent variable: Financial performance (FP)

$$\begin{aligned} \text{Model 6} & \quad \text{FP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + \varepsilon \\ \text{Model 7} & \quad \text{FP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + \varepsilon \\ \text{Model 8} & \quad \text{FP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + b_6\text{PI} + \varepsilon \\ \text{Model 9} & \quad \text{FP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + b_6\text{SI} + \varepsilon \\ \text{Model 10} & \quad \text{FP} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + b_6\text{PSI} + \varepsilon \end{aligned}$$

##### 5.4.3. Dependent variable: Innovation (PI, SI, PSI)

$$\begin{aligned} \text{Model 11} & \quad \text{PI} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + \varepsilon \\ \text{Model 12} & \quad \text{SI} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + \varepsilon \\ \text{Model 13} & \quad \text{PSI} = b_0 + b_1\text{FI} + b_2\text{FS} + b_3\text{FA} + b_4\text{FO} + b_5\text{SC} + \varepsilon \end{aligned}$$

where “ $b_0$ ” represents the constants;  $b_{1-6}$  are the unstandardized regression coefficients; and “ $\varepsilon$ ” represents the error terms: FI = firm industry type; FS = firm size; FA = firm age; FO = firm ownership type; SC = social capital; PI = process innovation; PSI = product/service innovation.

#### 5.5. Hypotheses testing

Table 6 summarizes the unstandardized estimates and their associated  $t$ -values and other model fit indices for the above models. Models 1 and 6 indicate that the control variables accounted for 0.9 and 1.1% of the variation in operational and financial performance, respectively, with both being insignificant, given that  $F(309) = 0.761$  and  $p > 0.05$ , and  $F(309) = 0.878$  and  $p > 0.05$ , respectively. This indicates that the control variables do not have any significant impact on the variation in the performance of MSBs in Ghana.

Models 2 and 7 depict the direct relationship of social capital with both operational and financial performance. The result indicates that social capital accounts for 34.7 and 31.7% of the variations in the operational and financial performance, respectively, of MSBs. These are statistically significant

with the associated  $t$ -values of 12.623 and 11.755, respectively, given that their respective  $F(309) = 32.79$  and  $F(309) = 28.65$ ,  $p > 0.01$  for the direct path of social capital to the operational and financial performance of MSBs. Thus, hypothesis (H1), which proposed that social capital has a positive impact on both the operational and financial performance of MSBs is confirmed, given that  $\beta = 0.59$ ,  $t = 12.62$ ,  $p < 0.01$  for operational performance; and  $\beta = 0.60$ ,  $t = 11.755$ ,  $p < 0.01$  for financial performance.

The study also examined the direct path relationship between social capital and innovation, as shown by models 11, 12, and 13. The results indicate that social capital accounts for 42.9, 36.8, and 35.7% of the variations in process, solution, and product/services innovation, respectively. In addition, these are statistically significant with the associated  $t$ -values of 14.358, 12.691, and 12.691, respectively, given that their respective  $F(308) = 46.40$ ,  $F(308) = 35.96$ , and  $F(308) = 34.26$ ,  $p > 0.01$ . The regression analysis conducted on the direct effect path between social capital and innovation suggests that social capital was observed to be positively and significantly related to process innovation ( $\beta = 0.658$ ,  $t = 14.35$ ,  $p < 0.01$ ), solution innovation ( $\beta = 0.609$ ,  $t = 12.69$ ,  $p < 0.01$ ), and product/services innovation ( $\beta = 0.644$ ,  $t = 12.63$ ,  $p < 0.01$ ). The results confirm hypotheses (H2a–c), which propose that social capital has a positive and direct impact on process, solution, and product/services innovation.

Hypotheses (H3a–c) posit that the three dimensions of innovation have positive and significant relationships with the performance of micro and small firms. The results indicate that innovation contributes 58.6% and 47.5% to the variation in the operational and financial performance, respectively, of MSBs in Ghana. These are statistically significant given that their respective  $F(305) = 58.95$  and  $F(305) = 30.7$  for operational and financial performance,  $p > 0.01$ . The regression results in Table 6 show that innovation is positively and significantly related to performance. Process innovation shows a positive and significant relationship with performance, given that ( $\beta = 0.135$ ,  $t = 2.059$ ,  $p < 0.01$ ) and ( $\beta = 0.284$ ,  $t = 3.56$ ,  $p < 0.01$ ) for operational and financial performance, respectively. Product/service innovation also shows a positive and significant relationship with performance, given that ( $\beta = 0.238$ ,  $t = 4.079$ ,  $p < 0.01$ ) and ( $\beta = 0.221$ ,  $t = 3.103$ ,  $p < 0.01$ ) for operational and financial performance, respectively. Solution innovation was also proven to relate positively with performance; however, it only showed a significant relationship with operational performance, given that ( $\beta = 0.281$ ,  $t = 4.261$ ,  $p < 0.01$ ) but not with financial performance ( $\beta = 0.077$ ,  $t = 0.956$ ). Therefore, apart from the effect of solution innovation on the financial performance, H3a–c are fully supported.

Models 3 and 8 depict the mediating role of process innovation on the relationship between social capital and operational performance. From the results, the indirect path from social capital to operational performance through process innovation indicates a significant and positive impact of the mediator variable process innovation, given that  $\beta = 0.135$  and  $t = 2.059$ . This is the same as with financial performance, given that  $\beta = 0.228$  and  $t = 3.791$ , at  $p > 0.01$ . Models 4 and 9 depict the mediating role of solution innovation on the relationship between social capital and operational performance. The results indicate the indirect path from social capital to operational performance through solution innovation, which shows a significant and positive impact of the mediator variable solution innovation, given that  $\beta = 0.281$  and  $t = 4.261$ . However, solution innovation did not show a significant impact on the relationship between social capital and financial performance, given that  $\beta = 0.077$  and  $t = 0.956$ , at  $p > 0.01$ . Last, models 5 and 10 examined the mediating role of product/services innovation in the social capital–performance relationship. This form of innovation has shown a positive and significant impact on the dynamics in the relationship between the social capital and both operational and financial performance, given that  $\beta = 0.238$  and  $0.221$ , and the  $t = 4.079$  and  $3.103$  at  $p > 0.01$ , respectively. The results also indicate that the impact of social capital remained positive and significant when the  $t$ -value reduced from 12.623 to 11.755 for operational performance and financial performance to 3.504 and 3.791, respectively. This indicates that process, solution, and product innovation partially mediated the relationship between social capital and performance. However, solution innovation showed no mediation between social capital and financial

**Table 7. Mediation analysis (Sobel test results): Direct and indirect effect assessment**

Unstandardized $\beta$ s					
Path	Direct effect (D)	Indirect effect (I)	Total effect (D+I)	Sobel test	Comments
SC→PI→OP	0.586	$0.659 \times 0.135 = 0.089$	0.675	2.055**	Partial mediation
SC→SI→OP	0.586	$0.609 \times 0.281 = 0.171$	0.757	4.036**	Partial mediation
SC→PSI→OP	0.586	$0.645 \times 0.238 = 0.153$	0.739	3.903**	Partial mediation
SC→PI→FP	0.604	$0.659 \times 0.284 = 0.187$	0.791	3.446**	Partial mediation
SC→SI→FP	0.604	$0.609 \times 0.077 = 0.047$	0.651	0.96	No mediation
SC→PSI→FP	0.604	$0.645 \times 0.221 = 0.143$	0.747	3.022**	Partial mediation

Notes: SC: Social capital; PI: process innovation; SI: solution innovation; PSI: product/services innovation; OP = operational performance; FP = financial performance.

\*\*Partial mediation significant at 1%.

performance. Hypotheses (H4a–c) sought to confirm the mediating role of the different forms of innovation in the relationship between social capital and performance. Process, solution, and product/services innovation were observed to individually partially mediate the relationship between social capital and performance (operational and financial), except solution innovation, which did not mediate the relationship between social capital and financial performance. This is demonstrated in Table 6 and is supported by the Sobel test values presented in Table 7.

## 6. Discussion

The study sought to examine the relationship between social capital and performance of MSBs in Ghana using innovation as a mediating variable. The study was conducted with the following objectives: (1) to examine how social capital affects the performance of MSBs; (2) to examine the effect of social capital on innovativeness of MSBs; (3) to examine the relationship between innovation and performance of MSBs; and (4) to examine the mediating role of innovation in the relationship between social capital and MSBs' performance.

The study confirmed that social capital has a significant and positive effect on the performance of MSBs in Ghana. This implies that an increase in the level of social capital is likely to increase the business performance. This inference supports the studies by Vu Hoang Nam (2014), Rooks et al. (2009), and Florin et al. (2003). Social capital improves the performance of MSBs by enhancing cost reduction in transactions, which eventually leads to more efficient results (Fafchamps & Minten, 2002). This is the case when the workforce takes advantage of their social relationships in the business and learns to share a common vision of the business. Moynihan and Pandey (2006) argued that effective internal communication fosters a stronger organizational focus on the results. Effective utilization of social capital is also important in influencing the performance of corporate strategic initiatives (Lechner et al., 2010). Building social capital requires investing time and other resources. This helps in creating and sustaining the acquired capital from the relationship. Therefore, small business owners and managers must focus on and consciously seek to create an appreciable level of social relationships among their workforce, and also monitor the negatives to reap the full benefits of the associations they create.

The direct effects of social capital and innovation were also explored and the study confirmed the hypothesis that there is a significant positive relationship between social capital and innovation of MSBs in Ghana. This is consistent with the studies by Carmona-Lavado et al. (2010), and Vu Hoang Nam (2014). Creating social capital is associated with and enhances innovation by improving the knowledge performance of businesses (Cooke & Wills, 1999). The earlier discussion mentioned how social capital could improve knowledge transfer among peers in the business. Social capital tends to improve the quality of mentorship and coaching in the business. These actions help in transferring

knowledge to new entrants in the business, and this gained knowledge offers them confidence in performing better for business success. In this age of technology, the more people share their knowledge and challenges, the more solutions could be generated for benefiting their businesses. In today's competitive business environment, it is imperative for businesses to focus on maintaining their competitiveness to achieve successful growth in such an uncertain and dynamic market (Zahra, 2005).

The direct relationship between innovation and performance was also tested while controlling for other firms' characteristics. The results indicated a positive and significant relationship between the two variables. This result is consistent with the study conducted by Zerenler et al. (2008) on the Turkish MSB manufacturing sector, indicating that MSB growth is positively and significantly influenced by the innovative performance of the firm. This affirms that creativity and innovation cannot be underestimated in the discussion of the growth of MSBs in any economy. The business environment in sub-Saharan Africa has become highly competitive because of the influx of foreign products into the African market due to the trade liberalization policy adopted by most countries in the region. This has put undue pressure on the MSBs to ensure their sustenance. Therefore, to sustain themselves, and to respond to the competitive pressures, MSBs need to be innovative in responding to customer needs through service provision, new product development, and providing solutions to customer problems.

The study finally tested six mediation situations with the three forms of innovation as the mediator variables and the direct effect being the relationship between social capital and performance (financial and operational) of MSBs. Five out of the six models indicated that innovation partially mediates the relationship between social capital and performance in terms of both operational and financial performance. The sixth model, which was about the mediation role of solution innovation, was not in affirmative. These results suggest that both social capital and innovation are critical dimensions to the success of a business. Therefore, this study is relevant to today's business and to the owners of businesses and firms. It offers opportunities for managers of MSBs to understand the need to consciously employ the use of innovation and social capital in their business models to ensure that the full benefit is reaped. The owners and managers of firms must also understand that implementing these concepts in business could incur costs, and also be counterproductive if not employed well.

This study has provided both empirical and theoretical contributions to the concepts of social capital, innovation, and performance studies. Theoretically, the findings on the mediation effects of various dimensions of innovation have revealed that innovation mediates the relationship between social capital and firm performance. The study argues that MSBs can benefit from increased performance by building on their social capital. Moreover, the bond established by employees, knowledge, information sharing, and trust established due to social capital would enable employees to be innovative in product/service development, process, and solution innovation, which could eventually lead to better performance. Contextually, this study has contributed to the social capital and innovation studies by considering the African context, which remains unexplored by the existing studies. The study has, therefore, contributed to the literature by examining how innovation mediates the relationship between social capital and performance in a sub-Saharan African nation. Moreover, the findings of this study could help managers of MSBs in Ghana find a strategic fit in the highly competitive business environment in which they operate. Due to the influx of cheaper, and arguably good quality foreign products, notably from China, MSBs in Ghana find it difficult to survive due to the intense competition. For their sustenance, the MSBs need to be innovative in cost reduction and develop new products and services at cheaper prices. Therefore, the MSBs have to explore the social relations, knowledge, shared information, and trust established due to social capital to build on their innovative capacity, for outperforming their foreign counterparts.

### **6.1. Limitations**

The major limitation of the study is the fact that study the employed solely quantitative survey research, with a structured questionnaire as the main tool for collecting data. The structured questionnaire denies the opportunity for more insightful exploration of relevant issues from the respondents;

however, all the robustness checks were done to establish the validity and reliability of the data collected. Moreover, generalizing the study to cover all countries must be done with care since the data was collected from MSBs in only one country—Ghana. However, it must be noted that MSBs in most countries in the sub-Saharan Africa are homogeneous in nature, therefore, what pertains in Ghana among MSBs may equally apply to MSBs in other African countries. We however, recommend that future studies may have to look at comparing two or more countries in Africa.

## 7. Conclusion

Most studies have established the relationship between social capital and performance in developed nations. Similarly, existing studies have established the relationship between firm innovations and performance. The purpose of this study was to examine the role of innovation in the relationship between social capital and firm performance using data from a developing nation—Ghana. The study has supported the existing study by establishing positive relationship between social capital and performance. The study has also established positive relationship between the various types of innovation and performance. Moreover, the study found that innovation mediates the relationship between social capital and performance. Social capital influences performance of MSBs directly, and indirectly through innovation. However, the study found a partial mediation of the various dimensions of innovation in the relationship between social capital and performance with the exception of process innovation, which has no mediation. We recommend that, while managers of MSBs are encouraged to build on positive social capital, they must equally utilize the knowledge, bond, trust and information generated as a result of social capital to innovate in order to be able to respond to competitive pressures, thereby increasing their performance.

### Funding

The authors received no direct funding for this research.

### Author details

Frederick Owusu Agyapong<sup>1</sup>

E-mail: [fowusuagyapong@gmail.com](mailto:fowusuagyapong@gmail.com)

Ahmed Agyapong<sup>1</sup>

E-mail: [deedat31@yahoo.co.uk](mailto:deedat31@yahoo.co.uk)

Kofi Poku<sup>1</sup>

E-mail: [kofi\\_poku1@yahoo.com](mailto:kofi_poku1@yahoo.com)

<sup>1</sup> KNUST School of Business, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

### Citation information

Cite this article as: Nexus between social capital and performance of micro and small firms in an emerging economy: The mediating role of innovation, Frederick Owusu Agyapong, Ahmed Agyapong & Kofi Poku, *Cogent Business & Management* (2017), 4: 1309784.

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