The nexus among innovation types, knowledge sharing, transformational leadership, and marketing performance in an emerging economy

An empirical study

Samuel Afriyie
Department of Marketing, Kumasi Technical University, Kumasi, Ghana and Department of Management Science, Jiangsu University, Zhenjiang, China, and

Jianguo Du and Abdul-Aziz Ibn Musah
Department of Management Science, Jiangsu University, Zhenjiang, China

Received 21 March 2019
Revised 6 June 2019
9 July 2019
Accepted 3 March 2020

Abstract

Purpose – This paper aims to empirically examine the structural relationship between innovation types, transformational leadership (TL), knowledge sharing (KS) and marketing performance (MP) in small- and medium-sized enterprise (SME) service firms. The paper further investigates the extent to which TL and KS influence the relationship between innovation and MP and how such an effect could be managed for SME development.

Design/methodology/approach – Cross-sectional survey data are collected from 437 from SME service firms of an emerging economy with a fast-growing service sector. The quantitative methodologies were used in which partial least squares structural equation modeling with bootstrap procedures was adopted to test the hypotheses.

Findings – The findings suggest that Innovations have a significant effect on MP, TL has a moderating effect on the relationship and whiles KS mediates between innovation and MP. The study's results indicate that these effects are robust in the firm's marketplace.

Research limitations/implications – This study calls for future testing of the current framework in other economies and SME sectors such as manufacturing, which makes findings contextual.

Practical implications – For SME to remain competitive, this study deepens the effect of innovation on performance and as such managers/owners should consider the vital role of TL and KS as a predictor of the relationship between innovation and MP.

Social implications – The findings emphasize the critical role of KS and TL in the relationship between innovation types and MP SMEs in an emerging economy.

Originality/value – This current study contributes to the literature by assessing a valid model that describes concurrently the relationships between innovation types, TL, KS and MP. This is the first empirical study to focus on SME MP in relation to types of innovation, TL and KS in an emerging economy.

Keywords Marketing performance, Transformational leadership, Knowledge sharing, SMEs, Innovation types, SEM-PLS

Paper type Research paper

Special Funds of the National Social Sciences Fund of China (18VSL038).

Journal of Indian Business Research
Vol. 12 No. 4, 2020
pp. 529-548

1755-4195
DOI 10.1108/JIBR-03-2019-0082

Introduction

Emerging markets account for more than half of the world's population (Danis *et al.*, 2011) and become an engine of growth in the global economy (Sinha and Sheth, 2018). These markets move through middle-class expansion, demography, economic liberalization and optimal utilization of resources and services. Currently, emerging countries account for 36 per cent of global gross domestic product and are expected to represent a market potential of US$30tn by 2025 (Sinha and Sheth, 2018). Emerging markets are very heterogeneous because the scale of consumers and the patterns of consumption vary enormously from one market to another and within the markets. Also, wealth is highly concentrated in emerging countries (Dimson *et al.*, 2002) as compared to developed markets. The real growth of emerging markets is the expansion of the market, where non-users can become new users. Meanwhile, small- and medium-sized enterprise (SME) contributions to economic development and social interventions in an economy have also faced many challenges. These constraints include weak management capacity, lack of market information, inadequate resources such as human and financial resources (Obeng *et al.*, 2014), low levels of innovative capabilities and inability to improve innovation and performance.

Consequently, these developments in the country have pushed SME service sector firms to look for avenues to innovate and improve their performance and have used various innovations to make progress. Concurrently, SME leaders can increase their marketing efforts by understanding important marketing concepts to keep pace with these challenges. However, extant literature findings identified a gap in scholarly work related to the relationship between innovation and firm performance of SMEs. This could be attributed to firms over-emphasized on the relationship between innovation and firm performance. For instance, innovation has a significant positive effect on the performance of micro and small family businesses in Ghana (Acquaah and Agyapong, 2015). The innovative capability of companies and individuals in the company has a definite causal relationship with SME performance (Agyapong *et al.*, 2017).

Although, some researchers have confirmed the findings of previous studies that entrepreneurs have accepted marketing as a separate concept and an integrated indicator of business performance (Lam and Harker, 2015). Therefore, some managers used entrepreneurial procedures and untapped marketing techniques to contribute to the achievements of new projects (Jayawarna *et al.*, 2014). Thus, the focus of measuring SMEs performance based on marketing performance (MP) has received little prominence by researchers. Marketers need to understand how important to define marketing in business performance. Lam and Harker (2015) noted that the concept of marketing proliferated in the twentieth century. Katona (2014) mentioned that some SME leaders did not recognize the importance of marketing. Thus, the need for academic and commercial researchers to add marketing knowledge by studying performance marketing.

Regardless of the need for SME MP, the study tends to empirically examine the role of transformational leadership (TL) and knowledge sharing (KS) as resource capabilities of the resource-based view (RBV) and knowledge-based-view (KBV) in the relationship between innovation and MP. However, Hayat and Riaz (2011) declared that TL is closely related to SMEs business strategy and the conditions in which entrepreneurs work. While Matzler *et al.* (2008) added that a TL style is firmly associated with entrepreneurship and SMEs. Hitherto, there have been many ideas by scholars to evaluate the significance of TL in small and medium enterprises (Northouse, 2018). Also, the developing significance of KS practices has propelled the SME managers to stress more on knowledge management practices as a consequence of its balance to the organization procedures, structure and culture for higher sharing of knowledge, which can cause better performance results. Knowledge is a form of intangible assets that have no less value than the other intangible assets, even one element

of the most valuable intangible assets (Putri and Kurnia, 2016). Past studies demonstrate that KS practices extensively confirm firms' performance as far as an enhanced innovative capacity of organization leads to the generation of sales growth, new products and services and improve quality of projects (Wang and Wang, 2012; Hislop *et al.*, 2018). The rest of the article is structured as follows: in the first part, the introduction of the study, in the next part, the theoretical foundation and hypotheses were formulated – the methodology of a research study detailed the analysis and the respective results. In the next part, discussions, including theoretical and managerial implications were presented. Finally, the limitation of the study, future research and conclusion are presented.

Literature review

Currently, innovation is regarded as one of the most important facets of business studies. It has become the foundation for the success of new products and services or possible modifications of existing products. Both the innovation process and the ensuing innovation outputs affect the performance of SMEs (Rosenbusch *et al.*, 2011). Innovation can happen only if the company has the ability to innovate (Laforet, 2011). The ability to innovate is a valuable asset for companies to provide and maintain a competitive edge and to implement the strategy fully. Innovation consists of the main process within the company (Saunila and Ukko, 2014) and cannot be separated from other practices. They are implicit and non-modified and closely linked to experimental and internal experiences (Guan and Ma, 2003).

Innovation capacity allows companies to quickly introduce a new product and adopt new systems. It is, therefore, important to take into account the ongoing competition. Innovation performance can be explained by the combination of assets and resources. As a result, a wide variety of resources, assets and capabilities are required (Sen and Egelhoff, 2000) to succeed in a rapidly changing environment. In some developing economies, Odoom *et al.* (2017) mentioned that SMEs generally do not have enough resources to compete with foreign companies. This innovation has a significant positive impact on the performance of small businesses in Ghana (Acquaah and Agyapong, 2015). Innovation across SMEs are required not only for the survival of the organization but also to improve business performance. Anning-Dorson (2016) argued that innovation is necessary to make a firm different, thus obtaining a competitive advantage, while innovative capability of companies and individuals in the company have a positive causal correlation with SME performance as described by Agyapong *et al.* (2017).

Henceforth, to improve the organization's performance by sensing future needs, making timely, high-quality investment decisions in a well-designed business model, implementing these decisions, creating productive combinations, encouraging learning and re-engineering systems that no longer work well. The rationale is still ambiguous (Teece, 2009). Venkatraman and Ramanujam (1986) suggested that organizational performance is multiple hierarchical structures indicating financial performance and operational performance such as market share and quality. Many research studies have analyzed the impact of innovation and business performance. The relationship between innovation and organizational performance is predominant. Previous research has shown that results are often mixed. They fluctuate between positive and negative results.

Notwithstanding, marketers need to understand how vital MP to business performance. Lam and Harker (2015) recognized that the marketing concept was broadened in the twentieth century. While Katona (2014) mentioned that some SME leaders did not recognize the significance of marketing. For this reason, some managers used entrepreneurial procedures and untapped marketing strategies to contribute to the achievements of new projects (Jayawarna *et al.*, 2014). Business leaders must recognize the MP to determine their contribution to organizational performance. Hence, this study inferred that the level of

innovativeness in an organization is an essential determinant of MP. Thus, the following hypotheses were proposed:

H1. Innovation significantly and positively affects MP.

Knowledge is gaining increasing attention as an essential resource capability (Barney *et al.*, 2001), organizations can apply their information with aspects of human value-added such as vision, entrepreneurship, concepts and experiences (Christopoulou and Monastiriotis, 2014). In this study, KBV is applied to determine the strategic importance of organizational resources (Grant, 1996). In the KBV, the primary aim of the firm is the application of existing knowledge to the delivery of goods and services (Grant, 1996). Knowledge and skills confer a competitive advantage to the company because it is through this set of knowledge and skills that a company can innovate new products and processes or to improve existing processes, a more effective or efficient way (Nonaka and Takeuchi, 1995). Because of the intense competition, the complex, dynamic and changing environment, organizations are, therefore, totally dependent on their knowledge and information-based abilities for their survival and growth (Prajogo, 2016; Vahlne and Jonsson, 2017). It is seen as a challenge for organizations to create mechanisms to accurately identify knowledge sources and gather advanced knowledge in their organizations. It spreads among people throughout the organization (Villar *et al.*, 2014; Masa'deh *et al.*, 2017).

Most previous studies have associated KS as having an impact on innovation. Wang and Wang (2012) mentioned in their studies that explicit and tacit KS has a direct effect on firm innovation and performance. While Liao and Wu (2010) also explained that KS plays a vital role in the development of a company's innovation. Hence, knowledge should be absorbed and, thus, share between staff to enhance the firm's innovative ability and profit. Next, the idea of innovation is firmly connected to the creation of new knowledge (Sáenz *et al.*, 2012). Therefore, people give their information to make better levels of innovation. Brachos *et al.* (2007) concluded that innovation could be improved if the required factors for motivating people to share their knowledge are available. Also, some researchers have mentioned that KS has an impact on product prices, the completion time of new product advancement, team performance, firm innovation capabilities, sales growth and earnings from new products and services, etc (Arthur and Huntley, 2005; Collins and Smith, 2006). Likewise, Hau *et al.* (2013) noted that sharing of knowledge is a fundamental essential, necessary part for the advancement of performance. Contextually, Kumar and Che Rose (2012) stated that the consequence of KS is that the creation of new knowledge and innovation result in improving organizational performance. The researcher was driven to examine that KS with innovation and MP of SMEs in the Ghanaian context. Therefore, the following hypothesis was proposed:

H2. Innovation is positively associated with KS.

H3. KS significantly influences the MP.

H4. KS positively mediates on Innovation and MP.

According to the RBV theory, companies have unique sets of resources and capabilities that are valuable, rare, unique, non-replaceable and capable of delivering a sustainable competitive advantage. Adler and Shenbar (1990) observed, that innovation capability is the ability to apply the appropriate process techniques to produce these new products, the ability to develop and adopt new products and processing techniques to meet the needs of the market, future needs and the ability to respond to spin-off technology activities and unforeseen opportunities created by competitors. Thus, resources are tangible and intangible assets that are either owned or

controlled by a company, while capacity refers to their ability to exploit and integrate resources through regulatory actions to achieve their objectives (Dyer and Singh, 1998). Barney (1991) later emphasized that developing sustainable competitive advantage requires unique capabilities that a company can achieve in competition and its environment. Thus, business managers must discover these features and capabilities by looking for valuable, rare and inappropriate resources in their company and then exploring those resources.

Moreover, Teece (2009) defines dynamic capacity as the ability of the enterprise to integrate, develop and reconfigure its internal and external skills to cope with rapidly changing environments. Dynamic capabilities can be grouped into detection, learning, integration or coordination. Teece (2009) report that dynamic capabilities rely on a resource-based approach. Although the resource-based approach is inherently static, it is nevertheless relevant to dynamic capabilities. As Teece (1998) points out, a resource-based perspective also calls for consideration of new capacity development strategies. Similarly, Zott (2003) recognizes that dynamic capabilities are more than a simple addition to an RBV because they deal with the resources and capacities that generate rents directly. Also, Teece (2009) argues that if a company has the resources/competencies but lacks dynamic capabilities, it has the opportunity to achieve a competitive return (and, perhaps, even a higher competitive yield) for a short period; but cannot maintain higher returns than long-term competitiveness. Dynamic competitive firms do not just build defenses against competition; they help shape competition and market outcomes, including entrepreneurship, innovation, semi-continuous asset orchestration and business reconfiguration. Archetypal firms with skills/resources but lacking dynamic capabilities will make a living by producing and selling the same product, scale and customer base (Winter, 2003). Kozlenkova *et al.* (2014) stated that companies with features possessing these attributes are the only ones capable of generating and sustaining a competitive advantage that provides superior performance. Also, Barney (2014) stated the relevance of RBV in relation to marketing practices.

Besides, Matzler *et al.* (2008) disclosed that TL is closely associated with entrepreneurship and SMEs as resource capabilities. First, they realized that considering SMEs are small, it is the entrepreneur who guides and leads, which is comparable to influence TL. Therefore, to be able to interface the wishes of each worker related to the inspirational and individual facets of transformational driving characteristics (Hayat and Riaz, 2011). Secondly, they mentioned that because of limited resources, SMEs were directly addressing the self-motivation of staff, as SMEs were ineffective to use substantial external rewards in transactions with the staff because there was not sufficient financial space. Finally, Matzler *et al.* (2008) found that the less complicated and more flexible reasons for SMEs from big enterprises provide an enabling environment for transformational executives to take an essential role in enhancing organizational performance. Based on the arguments mentioned above, we assume the following:

H5. The relationship between Innovation and MP will be moderated by TL.

Theoretical framework

A theoretical model incorporating the types of innovation, TL, KS and MP are validated empirically in this study and also to determine the critical role of TL and KS as resource capabilities among the relationship (Figure 1).

Research methodology

The study was conducted with data gathered from SME entrepreneurs, where each respondent was asked to provide data about their company and relevant information about

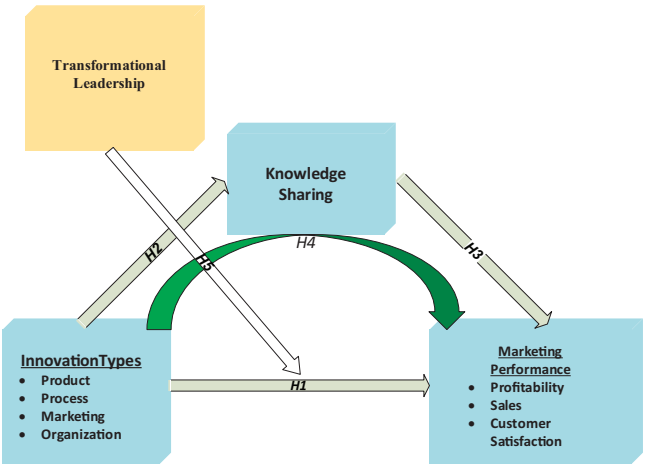

Figure 1.
Theoretical framework

innovation activities, which are relevant to different companies. The study was limited to Ghana, i.e. the cities of Accra and Kumasi) in Ghana with the highest numbers of SMEs in which 500 entrepreneurs were selected through convenience sampling from the SME service sector (hospitality, beauty, transportation and banking service). This approach was inconsistent with the studies (Makanyeza and Dzvuke, 2015) within that an individual was chosen to fill out the questionnaires for their companies. The National Board for Small Scale Industries database was used to obtain the relevant information from the entrepreneurs. This is, as a result, SME is homogeneous and operates in the informal sectors of the economy, a sample size of 500 is assumed to be broad and representative, as most firms are not registered and it is difficult to obtain official data on these activities. The questionnaires were tested, and the final adjustment was made to represent the credibility of the instruments used before it was administered to the respondents. The questionnaires were moderated by a group of two researchers in the field of SMEs and eight selected experienced entrepreneurs.

For this reason, five co-assistants investigated and trained to help with the management of survey questionnaires for respondents. In total, 87.4 per cent of all managed questionnaires, representing 437 responders, were returned. All innovation measures, TL, KS and MP, were mixed with reducing the problem of common mode variation (CMV). Also, participants were assured of the secrecy of information about the data provided. Current studies have used this method in collecting facts to help reduce CMV problems (Acquaah and Agyapong, 2015).

Descriptive analysis

The SMEs participated in this study with descriptive statistics of SMEs service sector. The study results indicate (54 per cent) are men and (46 per cent) are women. More than (70 per cent) of these managers' educational backgrounds were proven to be educated as compared to 30 per cent as less educated. The study further indicates hospitality (33 per cent) and beauty (31 per cent) having a strong presence in the SMEs service sector as compared to transport (19.9 per cent) and banking (16 per cent). In terms of age, the study found strong evidence of the youth from 18 and 35 years operating more in the SMEs service sector.

Finally, SMEs business type was predominately owned by Sole proprietor (38.4 per cent), private limited liability (25.4 per cent), a partnership limited liability (17.2 per cent) as compared to public limited liability (9.8 per cent) and family-owned business hold (9.2 per cent) (Table I).

Constructs	Indicators	Description
Product innovation (SI)	S1	We frequently introduce new products
	S2	We develop new product features
	S3	We reposition our existing products
	S4	We use new products to penetrate markets
		Source: Vinarski-Peretz *et al.* (2011)
Process innovation (PI)	P1	Increase the speed of implementation
	P2	Information accessibility
	P3	We reposition our existing products
	P4	We use new products to penetrate markets
		Source: Bilderbeek *et al.* (1998)
Marketing innovation (MI)	M1	Innovates our marketing programs to stay ahead of the market
	M2	New ways to build and build relationships with customers
	M3	The sales techniques are always revised and the new methods are tried
	M4	Constant changes in product design according to customer's needs and competitive products
	M5	New ways to improve our promotion methods and tools
	M6	New ways of improving our delivery channels
	M7	Implement innovative marketing programs
		Sources: Deshpandé *et al.* (1993) and Sok *et al.* (2013)
Organization innovation (OI)	O1	New business practice
	O2	New ways of the human resources management system
	O3	Reviewing the organizational structure to facilitates coordination
	O4	Renewing the organizational structure to facilitate teamwork
	O5	Reviewing long-term external relationship with partners
		Sources: Lampikoski and Emden (1999), Harborne and Johne (2003), Wan *et al.* (2005), Dobni (2008) and van Hemert *et al.* (2013)
KS	KS1	Employees lack trust among colleagues
	KS2	Management encourages and motivates KS
	KS3	Effective reward system or incentives to KS
	KS4	How important is knowledge technology in your business
	KS5	Empowering leadership
		Sources: Chennamaneni *et al.* (2012) and Cyril Eze *et al.* (2013)
TL	TL1	Idealized influence
	TL2	Inspirational motivation i.e. (rationality, brainpower, decision-making and problem solver)
	TL3	Intellectual stimulation i.e. (caring, coaching, advice and attention to each team member)
	TL4	Individualized consideration
		Source: Bass and Avolio (1995)
MP	MP1	The profitability of our firm
	MP2	Sales of our firm
	MP3	Customer Satisfaction with our firm
		Source: Vorhies and Morgan (2005)

Table I.
Measurement of constructs

Measures of construct

Control variables – according to studies conducted, the study controlled three characteristics of the firm i.e. the size of the firm measured by the number of employees (Odoom *et al.*, 2017), the age of the company was controlled through a number of years of establishment of the company's (Laukkanen *et al.*, 2016), and finally, the business sector was measured as follows: hotel, beauty, transport and banking services (Odoom, 2016).

Analysis and results

A two-step strategy prescribed by Anderson and Gerbing (1988) was adopted to test the hypotheses among the seven constructs of the study in which a review was executed and confirmed. Whiles, the second step embraced structural equation modeling (SEM) to examine the hypotheses. SEM is predominately the accepted causal modeling method (Lu *et al.*, 2010) where scholars can use it to contain measurement errors and provide information on the degree of appropriateness of tested analysis moderation-mediation effect. According to Hair *et al.* (2011), the empirical connection in SEM can be made easy when the hypothesized relationship has a robust theoretical foundation. As a result, SEM is efficient in evaluating the reliability of causal relationships that scholars develop grounded on the theory (Tobbin and Kuwornu, 2011). Therefore, SEM correlation models help to assess the relationships of moderation-mediation (Anning-Dorson, 2016). SEM causal relationship model involving moderation- mediation was considered useful of 0.70 (Bagozzi and Yi, 2012) and ranged from 0.76 to 0.88. The review followed the recommended test to evaluate discriminant validity (Fornell and Larcker, 1981). The test reveals that the relationship between the various constructs was more than the definite value of 0.50 (Hair *et al.*, 2006) and, thus supports convergent validity. This study uses four stages involved in data analysis as follows: data screening, exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and path analysis. SMART-partial least squares (PLS) was used to perform SEM via CFA and to develop trajectory analyzes to test hypotheses

Measurement model analysis

The article used standard measures and was, thus, explored to confirm the suitability of the constructs through validity and reliability assessments. Moreover, before affirmation, an EFA was observed, as shown in Table III. The paper initially evaluated the reliability and validity before appraising the hypothesized model. The article used SMART-PLS 3.0 and maximum likelihood estimation to assess all the parameters in the CFA analysis where the measurements were self-evaluated. CFA is approved for computing the validity and reliability of self-measuring tools (Montoya-Weiss and Calantone, 1994). Following Bagozzi and Yi (2012), some approximate fit heuristics were also investigated or assessed to provide additional information on model fit and the indicators ranged from acceptable to excellent. A seven-factor CFA model fits the data very well, with indicators meeting the specific criteria observed. All factor loadings constructs were positive and significant, as shown in Table IV.

The review examined the construct reliability (CR), which measures the reliability and internal consistency of the measured variables representing a latent construct and it must be accepted before construct validity can be determined (Hair *et al.*, 2011). The average variance extracted (AVE) estimate the value of variance confined by a construct about the variance due to random measurement error (Fornell and Larcker, 1981). CR and AVE were also evaluated as dimensions of scale or CR. For acceptable reliability measures and high internal consistency, the CR values should be higher than 0.6 (Bagozzi and Yi, 1988).

Hair *et al.* (2011) declared that reliability between 0.6 and 0.7 is an acceptable indicator of good reliability. AVE is also used as a measure of convergent validity. Baumgartner *et al.* (1994) affirmed that AVE values >0.4 are rated acceptable measures of convergence validity. The findings are shown in Table II (Tables III and V).

Table II. Measurement model results

Reliability, convergence and discriminant validity (Int, TL, KS and MP)	CR	AVE	1	2	3	4	5	6	7	8
1. InT	0.762	0.687	*0.829*							
2. MI	0.904	0.573	0.597	*0.757*						
3. MP	0.898	0.747	0.712	0.756	*0.865*					
4. OI	0.899	0.653	0.532	0.509	0.601	*0.808*				
5. PI	0.931	0.771	0.787	0.633	0.637	0.456	*0.878*			
6. SI	0.862	0.618	0.695	0.723	0.716	0.506	0.593	*0.786*		
7. TL	0.851	0.589	0.654	0.61	0.638	0.617	0.616	0.589	*0.767*	
8. KS	0.807	0.761	0.706	0.742	0.673	0.653	0.631	0.621	0.521	*0.872*

Table III. Cross loadings between constructs

Cross loadings between constructs (Int, TL, KS and MP)	KS	TL	MI	OI	PI	SI	MP
KS1	0.709						
KS2	0.715						
KS3	0.767						
KS4	0.741						
KS5	0.725						
LS1		0.775					
LS2		0.732					
LS3		0.800					
LS4		0.760					
M1			0.750				
M2			0.771				
M3			0.836				
M4			0.758				
M5			0.734				
M6			0.678				
M7			0.764				
O1				0.791			
O2				0.871			
O3				0.878			
O4				0.899			
O5				0.881			
P1					0.932		
P2					0.815		
P3					0.843		
P4					0.916		
S1						0.849	
S2						0.838	
S3						0.874	
S4						0.535	
MP1							0.926
MP2							0.913
MP3							0.743

Structural model analysis

To test the hypothesized model, a sequence of three constructive models was estimated in Table VI. The baseline model was tested for the first time between the association between innovation and MP. Model 2 was based on the estimation of the moderating effect of TL on the relationship between innovation and MP. In Model 3, was based on the influence of KS as a mediator on the correlation between innovation and MP. Then, an unlimited model was estimated in (Table VI: Figure 2) in which all variables (including assumed paths) were deliberately appraised.

Hypothesis testing

The results summarized in Table VI show that Model 1 and *H1* predicted that innovation types (InT) is positively significant to MP. As a display in Table VI ($\beta = 0.672$, $p < 0.001$), supporting *H1*. The study found support for *H2* of the positive relationship between innovation and KS. As display in Table VI ($\beta = 0.614$, $p < 0.01$), thus, *H2* was supported. *H3* projected that KS is related to MP. As shown in Table VI ($\beta = 0.691$, $p < 0.001$), we found a significant relationship between KS and MP, supporting *H3* (Table VII).

Table IV.
Model fit measures through CFA

Path coefficient of the direct effects (Int, TL, KS and MP)	CMIN/df	CFI	SRMR	RMSEA	PClose
Fit indices	2.521	0.951	0.035	0.053	0.067
Remark	Excellent	Excellent	Excellent	Acceptable	Acceptable

Notes: The threshold observed as- CMIN/df > 3.0, CFI > 0.90, SRMR < 0.080, RMSEA< 0.080 and PClose > 0.05

Table V.
Paths coefficient of control variables

Relationship	β	STDEV	*t*-values	*p*-values
Firm Size → MP	0.506	0.051	9.921	0.023
Sectors → MP	0.113	0.051	2.215	0.049
Firms age → MP	0.477	0.059	8.084	0.034

Table VI.
Path coefficient of the direct effects

Total effects (Int, TL, KS and MP)	Innovation types	MP	KS
Innovation types		0.672**	0.614***
Moderating effect 1			0.178
Moderating effect 2		0.575**	
MI	0.573**		
OI	0.485***		
SI	0.410*		
PI	0.598**		
TL		0.612***	0.558**
KS		0.691***	

Notes: Significance: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$. Moderation effect 1: interaction effect between innovation types and KS. Moderation effect 2: interaction effect between innovation types and MP

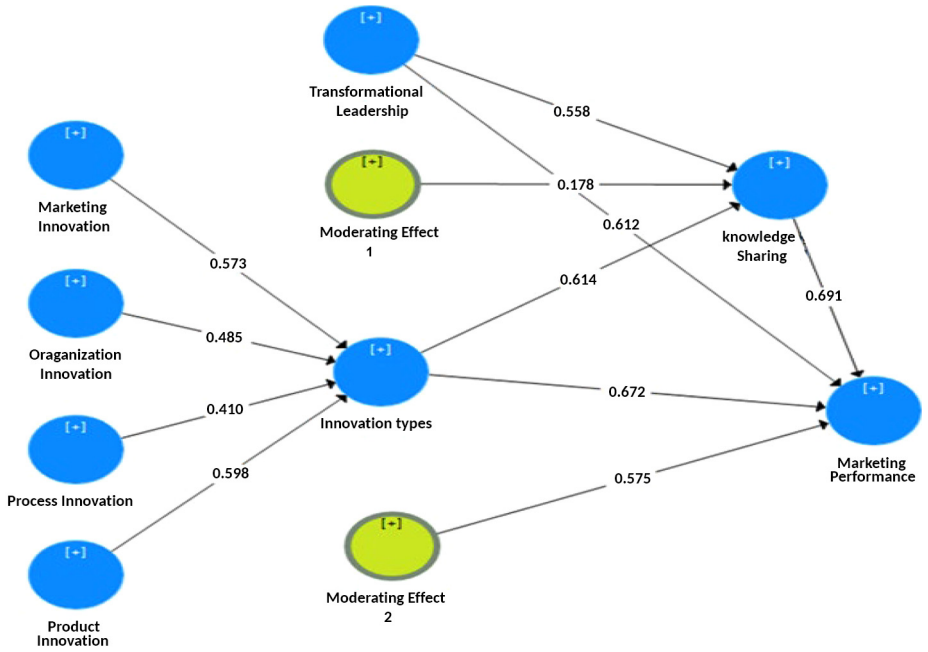

Figure 2.
Regression weights of path analysis of the proposed structural model

Relationship	β	SD	t-statistics (|O/STDEV|)	p-values
InT → MP	0.672	0.049	13.756	0.002
InT → KS	0.614	0.041	14.962	0.021
MI → InT	0.573	0.153	3.757	0.043
MI → MP	0.456	0.024	18.789	0.000
MI → KS	0.543	0.022	24.976	0.000
Moderating effect 1 → MP	0.317	0.048	6.671	0.318
Moderating effect 1 → KS	0.178	0.234	0.762	0.330
Moderating effect 2 → MP	0.575	0.254	2.264	0.280
OI → InT	0.485	0.189	2.569	0.327
OI → MP	0.591	0.009	64.331	0.000
OI → KS	0.341	0.013	25.792	0.425
PI → InT	0.410	0.678	0.605	0.987
PI → MP	0.453	0.025	18.404	0.013
PI → KS	0.543	0.021	26.290	0.006
SI → InT	0.598	0.064	9.305	0.016
SI → MP	0.391	0.018	22.157	0.007
SI → KS	0.473	0.015	31.578	0.000
TL → MP	0.612	0.050	12.193	0.012
TL → KS	0.558	0.048	11.664	0.023
KS → MP	0.691	0.064	10.841	0.340

Table VII.
Total effects

Mediation effects

H4 predicted that KS mediates the connection between innovation and MP (Model 3). To probe mediation, we used the criteria suggested by MacKinnon *et al.* (2002). Based on MacKinnon *et al.* (2002) recommendation, we embraced three conditions to examine the mediating role of KS. First, innovation should be related to KS; second, innovation must be related to MP; third, KS as the mediating variable, the relationship between innovations as the independent variable and MP as the dependent variable must be much smaller than it is when innovation is the sole predictor. Therefore, we analyze *H4* by assessing the effect of innovation when KS was introduced into the model. As a display in Table VI, KS augment the stronger predictor of MP ($\beta = 0.691$, $p < 0.01$). The coefficient of innovation, in contrast, predicts in connection with MP. The regression analyzes revealed that KS mediated the relationship between innovation and MP.

Moreover, the review carried on a bootstrapping test with a bootstrap sample of 500 to ensure the mediating effect of KS in the relationship between innovation and MP. The standardized indirect (mediated) effect of innovation on MP through KS is significant, as shown in Table IX. The result also proves that KS fully mediates the relationship between innovation and MP. Thus, these outcomes gave support for *H4*.

Moderating effects

To analyzes our hypothesized moderating effects, we created interaction effects by multiplying the scale of the basic unified construct scores of the predicted and vector variables. Both the moderate latent variable and the interaction effects were included in SMART-PLS. The results in Table VI display that TL has a significant moderating effect on the relationship between innovation and MP ($\beta = 0.575$, $p < 0.01$), leading us to support

Table VIII. Indirect effects (Int, TL, KS and MP)

Relationship	β	SD	*t*-statistics (|O/STDEV|)	*p*-values
InT → MP	0.314	0.009	35.073	0.185
MI → MP	0.592	0.024	24.393	0.934
MI → KS	0.472	0.022	21.710	0.188
Moderating effect 1 → MP	0.558	0.048	11.742	0.318
OI → MP	0.425	0.009	46.262	0.936
OI → KS	0.345	0.013	26.095	0.425
PI → MP	0.359	0.025	14.585	0.934
PI → KS	0.514	0.021	24.886	0.160
SI → MP	0.591	0.018	33.490	0.936
SI → KS	0.450	0.015	30.043	0.176
TL → MP	0.391	0.132	12.222	0.003

Table IX. Specific indirect effects of a path through the mediator (KS)

Path	β	SD	*t*-value	*p*-value
MI → InT → KS → MP	0.425	0.042	10.119	0.023
OI → InT → KS → MP	0.325	0.054	6.018	0.034
PI → InT → KS → MP	0.331	0.052	6.365	0.029
SI → InT → KS → MP	0.494	0.065	7.600	0.030
Moderating effect 1 → KS → MP	0.581	0.058	10.017	0.019
TL → KS → MP	0.309	0.061	5.065	0.000

H5b. The study further tested the moderating effect of TL on the relationship between innovation and MP through graphical demonstration. The study followed Cohen *et al.* (1983) sanctioned processes to plot the interaction effect, low and high TL were defined as shown in Figure 3 indicating the effect of TL on innovation and MP relationship. Figure 3 indicate that TL is more related to MP than to the high level of TL as low TL. Therefore, the results support for *H5*.

Discussion

Based on the above-mentioned arguments, we assume more specifically, the study seeks to answer the following research questions: (Model 1) to explore how innovation affects the MP of SMEs, (Model 2) to investigate the moderating role of TL in the relationship between innovation and MP of SMEs and (Model 3) to test KS as mediating effect on innovation and the MP of SMEs. The study findings point to TL and KS as resource capabilities, which play a vital role between innovation and MP. Our results indicate that these impacts are substantial and have a significant impact on SMEs in the marketplace. The study confirmed that innovation has a positive and significant effect on MP of SMEs. This supports the studies of (Yıldız *et al.*, 2014; Afriyie *et al.*, 2018a). Therefore, an improvement in the level of innovation types is likely to enhance the MP. Thus, SMEs entrepreneurs must focus on and diligently invest more in innovation activities primarily in the area of new product development, new marketing programs, process innovation and organizational innovation, which will lead to improving MP.

The study tested KS as a mediating effect on the direct relationship between types of innovation and MP of SMEs. The mediating variable indicated that KS fully mediates the relationship between innovation and MP. The results suggest that KS is a critical resource's capability to the success of innovation and MP of SMEs. This allows business managers to consider KS activities as an essential requirement in their innovation models to ensure marketing success as described by Afriyie *et al.* (2018b). Thus, the firm's managers should not be oblivious of its implementation cost if not well-executed. The study, finally, tested moderation situation on the TL on the relationship between the innovation and MP. Which indicates a strong relationship between the variables as mentioned in the studies of Chen *et al.* (2012) and Raymond *et al.* (2013), they emphasized the relevance of TL support for innovation and MP, however, TL also had a direct relation between KS and MP of SMEs.

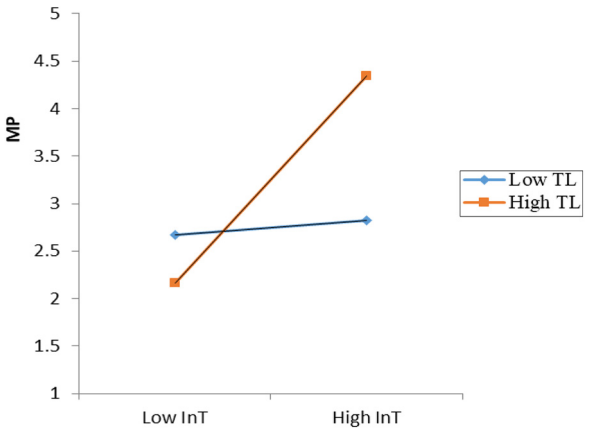

Figure 3.
Interaction between TL and InT in predicting MP

These results suggest that TL is critical to the success of SMEs. Thus, it offers opportunities for SMEs managers and owners to understand the four critical attributes of TL, which invariably would improve the innovation, thus leading to the MP of SMEs. Contextually, implementing these concepts in SMEs requires carefully planning, resources investment to avoid been counterproductive.

Theoretical

First, although previous research on innovation and firm performance of SMEs for instance (Agyapong *et al.*, 2017; Acquaah and Agyapong, 2015; Hoang Nam, 2014) are regarded as one of the most research areas in management science. The relationship between innovation and MP has received little research attention as described by Lam and Harker (2015) and Katona (2014) on the vital role of marketing in firm performance in their studies. To address the research gaps, this study proposes a research model to link innovation and MP. Thus, the empirical findings verify the significant influences of innovation (product, process, marketing and organizational) on MP (profitability, sales and customer satisfaction). The findings imply that innovation practice might provide an effective pathway to foster the firm's MP positively. Also, the findings add value and understanding of the literature on the direct relationship between innovation and MP of SMEs.

Second, KS is known to be one of the ways to organizational performance (Blankenship and Ruona, 2009; Yeşil *et al.*, 2013) as a result of it helps firms to use and make the most knowledge-based resources (Davenport and Prusak, 1998; Cabrera and Cabrera, 2005). Jointly, Lefika and Mearns (2015) also argue that KS with business innovation is promoted to share tacit knowledge and translate it into explicit knowledge. Therefore, the study connected innovation and MP on the mediating role of KS. The empirical findings verify that KS is a firm strategic and invisible resource has positive and significant influences on MP. Also, KS serves as an effective mediator between innovation and MP. Thus, this study extends the integrative theory of the relationship of innovation with MP via the mediating role of KS and highlights the significant direct and indirect effects of the relationships. Hence, these findings significantly contribute to putting innovation and MP literature forward through KS as an intervening variable that interacts with innovation to positively improve MP.

Thirdly, leaders are recognized in TL as resource-based capability is an important driver for employee creativity and innovation (Jyoti and Dev, 2015). In the same vein, Matzler *et al.* (2008) examined the relationship between TL style, innovation, growth and profitability, as well as model development. Therefore, the study connected the TL style as a moderating role in the relationship between innovation and MP. The empirical findings provide evidence that TL as a resource capability positively moderates the relationship between innovation and MP. The findings significantly contribute to putting innovation and MP literature forward by introducing TL as the situational variable that interacts with innovation to positively influence MP. The findings reveal that leaders should pay attention to encouraging and providing the necessary help and resources for employees to innovates, and thus, work closely related to the success of MP.

Practical implications

First, the findings show that innovation practice is a critical solution to stimulate MP in SMEs. Therefore, it beholds on SMEs owners/managers a significant implication, practical guidance and clear pathway leading to each aspect of innovation to MP. More specifically, the findings indicate that innovation types (product, process, marketing and organizational) were more significantly associated with MP of profitability, sales and customer satisfaction.

The main reason may be that managers should encourage employees freely in discussing and trying out innovative ideas, processes and procedures. Thus, increasing innovation abilities of firms in ensuring an improvement in MP.

Secondly, KS activities within an organization can produce critical resources and competencies, which permit firms to perform better than others and to achieve higher favorable outcomes such as innovation and MP. The findings stressed that KS is a driving force of innovation and MP. Thus, SMEs owners/managers should concentrate on finding the active pathway and appropriate method to create a system that stimulates employees to positively and actively participate in the KS process for innovation. For example, owners/managers can design a well-structured reward strategy to support employees to collect, share and apply knowledge. The contents related to the employees' involvement in the KS process should be integrated into the MP appraisal process. Consequently, once employees understand that the success in their goal and career is closely related to the involvement in KS activities, they will actively share their crucial knowledge and expertise to turn personal knowledge into the organizational or collective knowledge and positively contribute firm's innovation abilities to influence MP significantly.

Thirdly, the study verifies that SME leader's practice and exhibit TL style about innovation activities and improvement of MP. Thus, this leadership style has been tested empirically and has shown significant positive effects on sales, customer satisfaction and profitability. The results of the data confirmed the practice of each attribute (idealized influence, inspirational motivation, intellectual stimulation and individual consideration) of TL by the managers of SME. As a result, SMEs managers need to demonstrate, practice and sustain the qualities of TL style to improve the MP of their organization. The attributes associated with TL raise the level of motivation for staff and encourage them to reach their full potential. On the other hand, business owners who practice TL seem to generate and achieve better MP associated with high sales, customer satisfaction and high profitability.

Finally, the results of this study provide a clear indication that the perceptions of SMEs managers are not very different from those of western counterparts. Thus, it indicates that SMEs in developing economies are capable of competing locally and globally, on an equal footing with competitors on the other side of the world. For instance, in Ghana, to achieve success as outlined by the government policy "one district one factory," SMEs must be ambitious and confident in expanding their business and to compete internationally. To further improve the MP of SMEs and firms' innovation abilities, the government and financial institutions must continue to support and assist SMEs to participate fully in innovation and other proactive activities, allowing them to enter high-risk business areas with high-profit potential.

Limitations

This paper is not short of limitations. Foremost, as with all cross-sectional studies and data collected from the service sector of SMEs in Ghana, and thus, longitudinal studies should be considered. Following, we incline to adopt qualitative information to predict firm MP because of the company's intervention to provide original data. Regardless, intuitive information is extensively used in organizational studies (Azaranga *et al.*, 1998). Future research should discuss different aspects that have an impact on KS such as tacit and explicit knowledge. These factors are increasingly developing knowledge practices.

Consequently, these criteria should be studied in future research and the applications of these variables in the SME manufacturing sector. Also, the present study examined the TL

result grounded on individual ratings, yet the group-levels analysis is also beneficial (West and Anderson, 1996). For this reason, it would be useful to study the outcome of TL and other parameters that can be manipulated by team levels dynamics (or groups such as team creativity, trust in the team and team innovative exploit in the future).

Conclusion

The study demonstrated that adequate knowledge of the integrative theory between innovation types, TL, KS and MP of SMEs in an emerging economy were more deeply connected. Therefore, entrepreneurs should be critical in its implementation when expected to achieve higher levels of MP of SME. Moreover, an empirical test and theoretical model extends the MP knowledge by validating the mediating and moderating role of KS and TL as a critical resource capability in the SME sector. In summary, the authors acknowledge that the present study will furnish scholars with some leading facets to examine in this area of study especially improving the MP of organizations.

References

Acquaah, M. and Agyapong, A. (2015), "The relationship between competitive strategy and firm performance in micro and small businesses in Ghana: the moderating role of managerial and marketing capabilities", *Africa Journal of Management*, Vol. 1 No. 2, pp. 172-193.

Adler, P.S. and Shenbar, A. (1990), "Adapting your technological base: the organizational challenge", *Sloan Management Review*, Vol. 32, pp. 25-37.

Afriyie, S., Du, J., Appiah, K. and Musah, A.-A.I. (2018a), "The nexus between types of innovation and marketing performance of SME in an emerging economy", *International Review of Management and Marketing*, Vol. 8, pp. 78-92.

Afriyie, S., Du, J. and Musah, A.-A.I. (2018b), "The nexus between innovation types and marketing performance of SMEs in an emerging economy: the mediating role of knowledge sharing", *Journal of Economics, Management and Trade*, Vol. 21 No. 10.

Agyapong, F.O., Agyapong, A. and Poku, K. (2017), "Nexus between social capital and performance of micro and small firms in an emerging economy: the mediating role of innovation", *Cogent Business and Management*, Vol. 4, p. 1309784.

Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, p. 411.

Anning-Dorson, T. (2016), "Interactivity innovations, competitive intensity, customer demand and performance", *International Journal of Quality and Service Sciences*, Vol. 8 No. 4, pp. 536-554.

Arthur, J.B. and Huntley, C.L. (2005), "Ramping up the organizational learning curve: assessing the impact of deliberate learning on organizational performance under gainsharing", *Academy of Management Journal*, Vol. 48 No. 6, pp. 1159-1170.

Azaranga, M.R., Gonzalez, G. and Reavill, L. (1998), "An empirical investigation of the relationship between quality improvement techniques and performance – a Mexican case", *Journal of Quality Management*, Vol. 3 No. 2, pp. 265-292.

Bagozzi, R.P. and Yi, Y. (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74-94.

Bagozzi, R.P. and Yi, Y. (2012), "Specification, evaluation, and interpretation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 40 No. 1, pp. 8-34.

Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.

Barney, J.B. (2014), "How marketing scholars might help address issues in resource-based theory", *Journal of the Academy of Marketing Science*, Vol. 42 No. 1, pp. 24-26.

Barney, J., Wright, M. and Ketchen, D.J. JR, (2001), "The resource-based view of the firm: ten years after 1991", *Journal of Management*, Vol. 27 No. 6, pp. 625-641.

Bass, B. and Avolio, B. (1995), *MLQ Multifactor Leadership Questionnaire*, Mind Garden.

Baumgartner, H., Bagozzi, R. and Bagozzi, R. (1994), "The evaluation of structural equation models and hypothesis testing", *Principles of Marketing Research*, pp. 386-422.

Bilderbeek, R., Hertog, P. D., Marklund, G. and Miles, I. (1998), "Services in innovation: knowledge intensive business services (KIBS) as coproducers of innovation", SI4S Synthesis Paper, Work Package, Vol. 5 No. 6.

Blankenship, S.S. and Ruona, W.E. (2009), "Exploring knowledge sharing in social structures: potential contributions to an overall knowledge management strategy", *Advances in Developing Human Resources*, Vol. 11 No. 3, pp. 290-306.

Brachos, D., Kostopoulos, K., Eric Soderquist, K. and Prastacos, G. (2007), "Knowledge effectiveness, social context and innovation", *Journal of Knowledge Management*, Vol. 11 No. 5, pp. 31-44.

Cabrera, E.F. and Cabrera, A. (2005), "Fostering knowledge sharing through people management practices", *The International Journal of Human Resource Management*, Vol. 16 No. 5, pp. 720-735.

Chen, M.Y.-C., Lin, C.Y.-Y., Lin, H.-E. and Mcdonough, E.F. (2012), "Does transformational leadership facilitate technological innovation? The moderating roles of innovative culture and incentive compensation", *Asia Pacific Journal of Management*, Vol. 29 No. 2, pp. 239-264.

Chennamaneni, A., Teng, J.T. and Raja, M. (2012), "A unified model of knowledge sharing behaviours: theoretical development and empirical test", *Behaviour and Information Technology*, Vol. 31 No. 11, pp. 1097-1115.

Christopoulou, R. and Monastiriotis, V. (2014), "The Greek public sector wage premium before the crisis: size, selection and relative valuation of characteristics", *British Journal of Industrial Relations*, Vol. 52 No. 3, pp. 579-602.

Cohen, J., Cohen, P., West, S.G. and Aiken, L.S. (1983), *Applied Multiple Regression for the Behavioral Sciences*, Laurence Erlbaum, *Hillsdale, NJ*.

Collins, C.J. and Smith, K.G. (2006), "Knowledge exchange and combination: the role of human resource practices in the performance of high-technology firms", *Academy of Management Journal*, Vol. 49 No. 3, pp. 544-560.

Cyril Eze, U., Guan Gan Goh, G., Yih Goh, C. and Ling Tan, T. (2013), "Perspectives of SMEs on knowledge sharing", *VINE*, Vol. 43 No. 2, pp. 210-236.

Danis, W.M., DE Clercq, D. and Petricevic, O. (2011), "Are social networks more important for new business activity in emerging than developed economies? An empirical extension", *International Business Review*, Vol. 20 No. 4, pp. 394-408.

Davenport, T.H. and Prusak, L. (1998), *Working Knowledge: How Organizations Manage What They Know*, Harvard Business Press.

Deshpandé, R., Farley, J.U. and Webster, F.E. Jr, (1993), "Corporate culture, customer orientation, and innovativeness in japanese firms: a quadrad analysis", *The Journal of Marketing*, Vol. 57 No. 1, pp. 23-37.

Dimson, E., Marsh, P.R., Staunton, M. and Wilmot, J.J. (2002), *Credit Suisse Global Investment Returns Yearbook 2010*, Credit Suisse Research Institute.

Dobni, C.B. (2008), "Measuring innovation culture in organizations: the development of a generalized innovation culture construct using exploratory factor analysis", *European Journal of Innovation Management*, Vol. 11 No. 4, pp. 539-559.

Dyer, J.H. and Singh, H. (1998), "The relational view: cooperative strategy and sources of inter-organizational competitive advantage", *The Academy of Management Review*, Vol. 23 No. 4, pp. 660-679.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.

Grant, R.M. (1996), "Toward a knowledge-based theory of the firm", *Strategic Management Journal*, Vol. 17 No. 2, pp. 109-122.

Guan, J. and Ma, N. (2003), "Innovative capability and export performance of Chinese firms", *Technovation*, Vol. 23 No. 9, pp. 737-747.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2006), *Multivariate Data Analysis*, Vol. 6, Pearson Prentice Hall, Upper Saddle River, NJ.

Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011), "PLS-SEM: Indeed a silver bullet", *Journal of Marketing Theory and Practice*, Vol. 19 No. 2, pp. 139-152.

Harborne, P. and Johne, A. (2003), "Creating a project climate for successful product innovation", *European Journal of Innovation Management*, Vol. 6 No. 2, pp. 118-132.

Hau, Y.S., Kim, B., Lee, H. and Kim, Y.-G. (2013), "The effects of individual motivations and social capital on employees' tacit and explicit knowledge sharing intentions", *International Journal of Information Management*, Vol. 33 No. 2, pp. 356-366.

Hayat, N. and Riaz, M.T. (2011), "The influence of the SMEs top-level managers' leadership styles and their entrepreneurial orientation on the business performance".

Hislop, D., Bosua, R. and Helms, R. (2018), *Knowledge Management in Organizations: A Critical Introduction*, Oxford university press.

Hoang Nam, V. (2014), "The roles of human and social capital in the development of manufacturing SMEs in Vietnam", *Journal of Economics and Development*, Vol. 16, p. 5.

Jayawarna, D., Jones, O., Lam, W. and Phua, S. (2014), "The performance of entrepreneurial ventures: examining the role of marketing practices", *Journal of Small Business and Enterprise Development*, Vol. 21 No. 4, pp. 565-587.

Jyoti, J. and Dev, M. (2015), "The impact of transformational leadership on employee creativity: the role of learning orientation", *Journal of Asia Business Studies*, Vol. 9 No. 1, pp. 78-98.

Katona, F. (2014), "Examination of marketing activities of small businesses in Hungary", *On-line Journal Modelling the New Europe*.

Kozlenkova, I.V., Samaha, S.A. and Palmatier, R.W. (2014), "Resource-based theory in marketing", *Journal of the Academy of Marketing Science*, Vol. 42 No. 1, pp. 1-21.

Kumar, N. and Che Rose, R. (2012), "The impact of knowledge sharing and Islamic work ethic on innovation capability", *Cross-Cultural Management: An International Journal*, Vol. 19 No. 2, pp. 142-165.

Laforet, S. (2011), "A framework of organizational innovation and outcomes in SMEs", *International Journal of Entrepreneurial Behavior and Research*, Vol. 17, pp. 380-408.

Lam, W. and Harker, M.J. (2015), "Marketing and entrepreneurship: an integrated view from the entrepreneur's perspective", *International Small Business Journal: Researching Entrepreneurship*, Vol. 33 No. 3, pp. 321-348.

Lampikoski, K. and Emden, J. (1999), *Managing Innovatively: Exploit Creative Resources*, WSOY, Porvoo.

Laukkanen, T., Tuominen, S., Reijonen, H. and Hirvonen, S. (2016), "Does market orientation pay off without Brand orientation? A study of small business entrepreneurs", *Journal of Marketing Management*, Vol. 32 Nos 7/8, pp. 673-694.

Lefika, P.T. and Mearns, M.A. (2015), "Adding knowledge cafés to the repertoire of knowledge sharing techniques", *International Journal of Information Management*, Vol. 35 No. 1, pp. 26-32.

Liao, S.-H. and Wu, C.-C. (2010), "System perspective of knowledge management, organizational learning, and organizational innovation", *Expert Systems with Applications*, Vol. 37 No. 2, pp. 1096-1103.

Lu, Y., Zhou, L. and Bruton, G., L.I., W. (2010), "Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in an emerging economy", *Journal of International Business Studies*, Vol. 41 No. 3, pp. 419-436.

Mackinnon, D.P., Lockwood, C.M., Hoffman, J.M., West, S.G. and Sheets, V. (2002), "A comparison of methods to test mediation and other intervening variable effects", *Psychological Methods*, Vol. 7 No. 1, p. 83.

Makanyeza, C. and Dzvuke, G. (2015), "The influence of innovation on the performance of small and medium enterprises in Zimbabwe", *Journal of African Business*, Vol. 16 Nos 1/2, pp. 198-214.

Masa'Deh, R.E., Shannak, R., Maqableh, M. and Tarhini, A. (2017), "The impact of knowledge management on job performance in higher education: the case of the University of Jordan", *Journal of Enterprise Information Management*, Vol. 30, pp. 244-262.

Matzler, K., Schwarz, E., Deutinger, N. and Harms, R. (2008), "The relationship between transformational leadership, product innovation and performance in SMEs", *Journal of Small Business and Entrepreneurship*, Vol. 21, pp. 139-151.

Montoya-Weiss, M.M. and Calantone, R. (1994), "Determinants of new product performance: a review and meta-analysis", *Journal of Product Innovation Management*, Vol. 11, pp. 397-417.

Nonaka, I. and Takeuchi, H. (1995), *The Knowledge Creation Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press, New York, NY.

Northouse, P.G. (2018), *Leadership: Theory and Practice*, Sage publications.

Obeng, B.A., Robson, P. and Haugh, H. (2014), "Strategic entrepreneurship and small firm growth in Ghana", *International Small Business Journal: Researching Entrepreneurship*, Vol. 32 No. 5, pp. 501-524.

Odoom, R. (2016), "Brand-building efforts in high and low performing small and medium-sized enterprises (SMEs)", *Journal of Small Business and Enterprise Development*, Vol. 23 No. 4, pp. 1229-1246.

Odoom, R., Anning-Dorson, T. and Acheampong, G. (2017), "Antecedents of social media usage and performance benefits in small- and medium-sized enterprises (SMEs)", *Journal of Enterprise Information Management*, Vol. 30 No. 3, pp. 383-399.

Prajogo, D.I. (2016), "The strategic fit between innovation strategies and business environment in delivering business performance", *International Journal of Production Economics*, Vol. 171, pp. 241-249.

Putri, N.T. and Kurnia, S. (2016), "The role of organizational culture and individual towards knowledge management practice in cement industry", *Management of Innovation and Technology (ICMIT), 2016 IEEE International Conference on, 2016*. IEEE, pp. 220-225.

Raymond, L., Bergeron, F. and Croteau, A.-M. (2013), "Innovation capability and performance of manufacturing SMEs: the paradoxical effect of IT integration", *Journal of Organizational Computing and Electronic Commerce*, Vol. 23 No. 3, pp. 249-272.

Rosenbusch, N., Brinckmann, J. and Bausch, A. (2011), "Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs", *Journal of Business Venturing*, Vol. 26 No. 4, pp. 441-457.

Sáenz, J., Aramburu, N. and Blanco, C.E. (2012), "Knowledge sharing and innovation in Spanish and Colombian high-tech firms", *Journal of Knowledge Management*, Vol. 16 No. 6, pp. 919-933.

Saunila, M. and Ukko, J. (2014), "Intangible aspects of innovation capability in SMEs: impacts of size and industry", *Journal of Engineering and Technology Management*, Vol. 33, pp. 32-46.

Sen, F.K. and Egelhoff, W.G. (2000), "Innovative capabilities of a firm and the use of technical alliances", *IEEE Transactions on Engineering Management*, Vol. 47 No. 2, pp. 174-183.

Sinha, M. and Sheth, J. (2018), "Growing the pie in emerging markets: Marketing strategies for increasing the ratio of non-users to users", *Journal of Business Research*, Vol. 86, pp. 217-224.

Sok, P., O'Cass, A. and Sok, K.M. (2013), "Achieving superior SME performance: overarching role of marketing, innovation, and learning capabilities", *Australasian Marketing Journal (AMJ)*, Vol. 21 No. 3, pp. 161-167.

Teece, D.J. (1998), "Capturing value from knowledge assets: the new economy, markets for know-how, and intangible assets", *California Management Review*, Vol. 40 No. 3, pp. 55-79.

Teece, D.J. (2009), *Dynamic Capabilities and Strategic Management: Organizing for Innovation and Growth*, Oxford University Press on Demand.

Tobbin, P. and Kuwornu, J. (2011), "Adoption of mobile money transfer technology: structural equation modeling approach", *European Journal of Business and Management*, Vol. 3, pp. 59-77.

Vahlne, J.-E. and Jonsson, A. (2017), "Ambidexterity as a dynamic capability in the globalization of the multinational business enterprise (MBE): case studies of AB Volvo and IKEA", *International Business Review*, Vol. 26 No. 1, pp. 57-70.

van Hemert, P., Nijkamp, P. and Masurel, E. (2013), "From innovation to commercialization through networks and agglomerations: analysis of sources of innovation, innovation capabilities and performance of Dutch SMEs", *The Annals of Regional Science*, Vol. 50 No. 2, pp. 425-452.

Venkatraman, N. and Ramanujam, V. (1986), "Measurement of business performance in strategy research: a comparison of approaches", *The Academy of Management Review*, Vol. 11 No. 4, pp. 801-814.

Villar, C., Alegre, J. and Pla-Barber, J. (2014), "Exploring the role of knowledge management practices on exports: a dynamic capabilities view", *International Business Review*, Vol. 23 No. 1, pp. 38-44.

Vinarski-Peretz, H., Binyamin, G. and Carmeli, A. (2011), "Subjective relational experiences and employee innovative behaviors in the workplace", *Journal of Vocational Behavior*, Vol. 78 No. 2, pp. 290-304.

Vorhies, D.W. and Morgan, N.A. (2005), "Benchmarking marketing capabilities for sustainable competitive advantage", *Journal of Marketing*, Vol. 69 No. 1, pp. 80-94.

Wan, D., Ong, C.H. and Lee, F. (2005), "Determinants of firm innovation in Singapore", *Technovation*, Vol. 25 No. 3, pp. 261-268.

Wang, Z. and Wang, N. (2012), "Knowledge sharing, innovation and firm performance", *Expert Systems with Applications*, Vol. 39 No. 10, pp. 8899-8908.

West, M.A. and Anderson, N.R. (1996), "Innovation in top management teams", *Journal of Applied Psychology*, Vol. 81 No. 6, p. 680.

Winter, S.G. (2003), "Understanding dynamic capabilities", *Strategic Management Journal*, Vol. 24 No. 10, pp. 991-995.

Yeşil, S., Koska, A. and Büyükbeşe, T. (2013), "Knowledge sharing process, innovation capability and innovation performance: an empirical study", *Procedia – Social and Behavioral Sciences*, Vol. 75, pp. 217-225.

YıLDıZ, S., Baştürk, F. and Boz, İT. (2014), "The effect of leadership and innovativeness on business performance", *Procedia – Social and Behavioral Sciences*, Vol. 150, pp. 785-793.

Zott, C. (2003), "Dynamic capabilities and the emergence of intra-industry differential firm performance: insights from a simulation study", *Strategic Management Journal*, Vol. 24 No. 2, pp. 97-125.

Corresponding author
Samuel Afriyie can be contacted at: freshsam2000@yahoo.com